

Documentation of ILRI/JIRCAS/ICRISAT Fakara data sets
JIRCAS Commissioned Research

Final report submitted by ICRISAT - February 2007



Cover:
Detail of a Spot 5 panchromatic scene over the Fakara , 24 Sept 2004

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JIRCAS Commissioned Research

By Bruno Gerard, Pierre Sibiry Traore, Adamou Laouali, Binta Ndiaye, Dougbedji Fatondji
February 2007

1. Background

From the early 1990s, the Fakara region, located 60 km east of Niamey, has been a privileged area for a series of studies at the landscape scale. Earlier work has been initiated by an ILRI team lead by Pierre Hiernaux and Matthew Turner with the general objective of studying livestock mediated nutrient cycling in typical South-Saharan crop-livestock systems.

The approach followed by ILRI scientists was holistic and led to intensive data collection from 1994 to 2001. Characterisation performed over an area of 500 km² has been very detailed and included bio-physical and socio-economic data, some of them spatially explicit and encoded in a GIS.

In the early 2000's some ICRISAT scientists, willing to capitalize on the characterization work and research outcome of ILRI's research, implemented and monitored a series of on-farm demonstrations (2000-2002) in collaboration with FAO Projet Intrants with the objectives of understanding better the response of pearl millet to improve fertility management (organic and inorganic) under a range of bio-physical and climatic conditions. Since then a network of more than 60 rain gauges have monitored the spatial and temporal distribution of rainfall, accompanied by an automated weather station recording important agro-climatic parameter on an hourly and daily basis. The demonstrations have been followed by a large multi-location three-year experiment aiming at understanding site-specificities and complex interaction between water and nutrients.

Aware of the benefit of having access to and capitalizing on a large spatial data set, several special research projects have, in the recent years, selected the Fakara as one of their benchmark research site (JIRCAS-ICRISAT collaborative project, ICRISAT DGDC, DMP, ICRISAT-Agrhymet Climate Change) and have contributed to the enrichment of the database.

In addition of the data collected by the three partners¹ (JIRCAS, ILRI, ICRISAT) several other actors were or are still involved in specific researches over the Fakara. Major secondary data sets belong to the IRD/CNES/CESBIO lead HAPEX-Sahel project (Hydrological and Atmospheric Pilot Experiment in the Sahel; see <http://www.ird.fr/hapex/>) that collected data between 1990-1992 and the on going AMMA project² African Monsoon Multidisciplinary Analysis; see <http://amma-international.org/>).

¹ In this context, we will call Primary Data, data directly collected by JIRCAS, ILRI or ICRISAT and Secondary Data, data collected by other institutions.

² ICRISAT has recently signed a Data Agreement with AMMA/IRD allowing access to several data sets and satellite images collected within the AMMA project.

The Fakara data base thus constituted a unique opportunity for further systems research and better understanding of complex processes and dynamics at the village and landscape scale. In addition, very good interaction with development bodies and farmer groups coupled with a good understanding of bio-physical and socio-economic environments permits rationale upscaling/outscaling exercises.

The Fakara Data collected by the institutions, vary in their attributes and formats and have been partially accumulated in the different databases. Therefore, JIRCAS, ICRISAT and ILRI desire to document the Fakara Data and integrate them into a metadatabase with contents in order to facilitate the exchange and effective utilization of the Fakara Data collected and stored by the three institutions. To achieve this JIRCAS has contracted ICRISAT for a commissioned research.

2. Objectives of the commissioned research

The objective of this commissioned research was to document Fakara Data collected in the Fakara area by ILRI, ICRISAT and JIRCAS, according to recognized standards with the use of the ArcCatalog software for spatial data and other appropriate tools.

3. Calendar of activities

3.1 Preparatory work

Preparatory work was initiated by early September to review/evaluate existing metadata tools/software and elaborate the program of a workshop.

3.2 Niamey workshop

The workshop was organized at the ICRISAT Sahelian Center from 20 to 25 September 2006. Twenty-two participants from ICRISAT, JIRCAS, Kyoto University, ILRI, INRAN, IRD, and AGRHYMET attended the sessions. It had the following specific objectives:

- Complete the inventory of bio-physical, socio-economic data sets (spatially explicit or not) collected over the Fakara region by the three institutions (JIRCAS, ICRISAT, ILRI)
- Refine guidelines for metadatabase creation and data sharing (procedure, tools, sharing rules)
- Share past on going research objectives protocols and results and future research plans for better integration of research of the three institutions and future data requirements
- Establish clear protocols between ICRISAT staff responsible for metadata encoding and data owners (scientists) to facilitate metadata collection/encoding during the period October-November 2006.

It was initially decided to use ArcCatalog as the main metadata encoding software. An alternate solution using another interface was identified and discussed during the Niamey workshop. M3Cat open-source metadata editor was evaluated and we decided to use it at the data entry interface for involved scientists. M3Cat was installed on the Sadoré LAN and is since available online on the ICRISAT website for secure access from all locations through the Internet (<http://icrisatsc.cgiar.org/m3cat/>).

This tool facilitated interactions between scientists/data holders and metadata encoders and pave the way for .XML metadata record posting on a GeoNetwork node

3.3 Metadata encoding

More than 90 datasets were identified as part of the exercise, and prioritized for metadata encoding (see table 1).

During the period October-December, encoding of metadata was performed jointly by the scientists and Laouali Amadou (contracted for the task).

The entire process has been summarize in a flowchart (Figure 1).

During the Bamako meeting in January 2007, final data encoding was performed and validation procedures were defined. Since all the metadata have been validated online on the USGS web site (<http://geo-nsdi.er.usgs.gov/validate.php>)

4. Products delivered at the end of the contracted research

The following products are delivered to JIRCAS at the end of the project period (mifbruary 2007):

- The present report in a electronic form (pdf) sent as mail attachement to Dr. Satoshi Tobita (JIRCAS) and copied to Drs. Keiichi Hayashi, Ryoichi Matsunaga (JIRCAS), Saidou Koala, Dyno Keatinge, Steve Twomlow (ICRISAT)
- Four hard copies of the present report sent to Dr. Satoshi Tobita at the following address: JIRCAS Ohwashi, Tsukuba, 305-8686, Japan
- Four copies of a DVD, send with the hard copies of the report to Dr. Satoshi Tobita, containing:
 - the metadata in MS Access format (M3Cat compatible format);
 - M3Cat installation file;
 - several datasets which were considered as public domain with no access/use restrictions;
 - Power presentations prepared for the Niamey;
 - Series of MS and PhD theses related to research work in the Fakara;
 - Various background documents on metadata.

5. What's next (future activities)

The end of this contracted research is far from being the end of our joint documentation efforts. JIRCAS financial support allowed an initial boost to the task but metadata as data in general are dynamic so continuous efforts are needed to upgrade and update them. This exercise being also very important for ICRISAT we update the product delivered to JIRCAS on a regular basis within the next year. For that matter ICRISAT has decided to extent the contract of Laouali Amadou until the end of December under DGDC/ICRISAT funds.

Because of the dynamic nature of metadata, we envisage continuing using M3Cat as an online tool to access, search, update and validate our metadata according to the

process developed (see flowchart) during this contracted research. However it is highly desirable to find an alternate host to Sadore server, JIRCAS or ICRISAT India being considered to host the database in the near future. The documentation of ICRISAT other datasets (outside of the Fakara) will also follow the same procedure.

Within the next few months, publication of the metadata and selected datasets on a geoportal will need require further consideration and should be done with the approval of the three institutions involved.

A follow-up report will be delivered to JIRCAS by the end of 2007.

6. ICRISAT human resources contribution

Bruno Gerard: Coordinator, supervision

Pierre Sibiry Traore: Technical backstopping, development/identification of appropriate tools, quality control.

Binta Ndiaye: Metadata expertise, quality control

Laouali Abdou: Contracted agent for metadata collect and encoding

Harou Rabe: IT support for on-line availability of M3Cat interface.

The coordination wish to thank all the JIRCAS scientists involved for their availability and their very positive and productive attitude during the first phase of this contracted research.

7. Access to the online Fakara metadata

Current version of the metadata can be access online in browsing mode only using M3Cat interface (see guide in Annexe 1) at the following web address:

<http://icrisatsc.cgiar.org/m3cat/>

With the following login:

Username : user

Password: user

Table 1. Datasets identified for documentation during the Niamey workshop

Dataset documented	Scientists custodian
1-Answers of individual interviewed farmers to selections of the questions 2-Answers of individual interviewed farmers to the questions about cropping pattern system 3-Answers of individual interviewed farmers to the questions about the reasons for cowpea cultivation 4-Narrative answers of individual interviewed farmers to the questions 5-On farm survey on the cowpea cultivation	Ryoichi Matsunaga (JIRCAS)
1- Actual situation of land use for Jerma household 2- Agricultural production and soil fertility status in differently managed farms in fakara 3- Estimation of nutrient removal through crop production of three villages in Fakara 4- Indigenous Knowledge description of sampling of Area 5- Quantity and quality of materials used for recycling system of three villages in Fakara 6- Questionnaire 7- Soil Color of Indigenous Knowledge Soil in Fakara 8- Soil Fertility (Corg TN BrayP) of Indigenous Knowledge Soil 9- Effect of corralling on millet production 10- Optimal timing for the application of fertilizer and its optimal timing of application in corralling 11- Survey on corralling activities	Keiichi Hayashi (JIRCAS)
1- Household characteristics in fakara_expense 2- Household Characteristics in Fakara_identification 3- Household characteristics in fakara_income 4- Household characteristics in fakara_livestock 5- Household characteristics in fakara_number of persons	Tahirou Abdoulaye (JIRCAS)
1- Area_cropped by sedentary Fulani (HS) 2- Transhumance and corralling by sedentary Fulani 3- Monitoring grazing route by sedentary Fulnai	Hitoshi Shinjo (JIRCAS)
1-Household risk management in Fakara	Uru Tanaka (JIRCAS)
1- Daily rainfall measurements at landscape scale with a network of rain gauges in 2004 2- Daily rainfall measurements at landscape scale with a network of rain gauges in 2005 3- Daily rainfall measurements at landscape scale with a network of raingauges in 2000 4- Daily rainfall measurements at landscape scale with a network of raingauges in 2001 5- Daily rainfall measurements at landscape scale with a network of raingauges in 2002 6- Daily rainfall measurements at landscape scale with a network of raingauges in 2003 7- Layout of the multilocational multifactorial (genotype, mineral fertilizer, manure) experiment conducted in 2003, 2004, 2005 8- Position of neutron probe access tubes placed in 2003 in the fakara	Bruno Gérard ICRISAT

<p>multilocation experiment</p> <p>9- Land use cover in 2004 obtained from segmentation of spot 5 image</p> <p>10 – Satellite-image map of the Fakara A (Banizoumbou)</p> <p>11- Satellite-image map of the Fakara B (Tigo)</p> <p>12- Satellite-image map of the Fakara C (Baboussay)</p> <p>13- Satellite-image map of the Fakara D (Dantiandou)</p> <p>14- Satellite-image map of the Fakara E (Kodey)</p> <p>15- Pan-sharpened false color IR Landsat 7 image</p> <p>16- Pan-sharpened true color Landsat 7 image</p> <p>17- Multispectral Spot 5 Imagery of the Fakara taken on 28 September 2004 Level 1B Imagery .TIF</p>	
<ol style="list-style-type: none"> 1- Fakara Geomorphology map 2- Land use in the Fakara in the year 1950 3- Land use in the Fakara in the year 1965 4- Land use in the Fakara in the year 1975 5- Land use in the Fakara in the year 1992 6- Land use in the Fakara in the year 1994 7- Land use in the Fakara in the year 1995 8- Land use in the Fakara in the year 1996 	<p>Pierre Hiernaux (ILRI) Documented by Bruno Gerard</p>
<ol style="list-style-type: none"> 1- Katanga AWS weather data 2000 Daily Output 2- Katanga AWS weather data 2000 Hourly Output 3- Katanga AWS weather data 2001 Daily Output 4- Katanga AWS weather data 2001 Hourly Output 5- Katanga AWS weather data 2001 Rainfall 6- Katanga AWS weather data 2001 Wind Speed 7- Katanga AWS weather data 2002 Daily Output 8- Katanga AWS weather data 2002 Hourly Output 9- Katanga AWS weather data 2002 Rainfall 10- Katanga AWS weather data 2002 Wind Speed 11- Katanga AWS weather data 2003 Wind Speed 12- Katanga AWS weather data 2003 Rainfall 13- Katanga AWS weather data 2003 Hourly Output 14- Katanga AWS weather data 2003 Daily Output 15- Katanga AWS weather data 2004 Daily Output 16- Katanga AWS weather data 2004 Hourly Output 17- Katanga AWS weather data 2004 Rainfall 18- Katanga AWS weather data 2004 Wind Speed 19- Katanga AWS weather data 2005 Daily Output 20- Katanga AWS weather data 2005 Hourly Output 21- Katanga AWS weather data 2005 Rainfall 22- Katanga AWS weather data 2005 Wind Speed 	<p>Fatondji Dougbedji (ICRISAT)</p>
<p>1-Ethno-botanical_survey</p>	<p>Augustine Ayantunde (ILRI)</p>

Flowchart: procedure followed for Fakara metadatabase creation

scientist input
 no scientist input

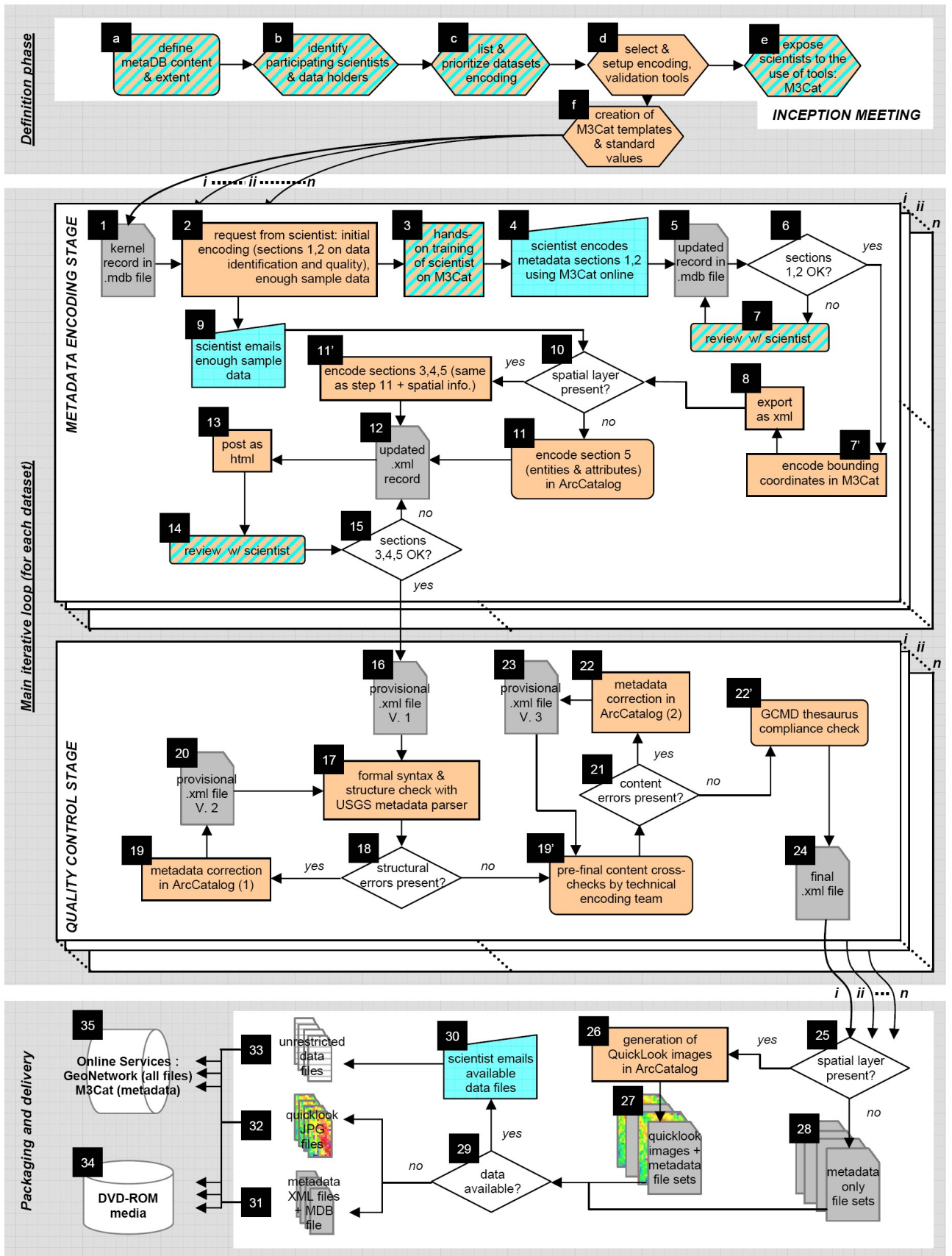


Figure 1: Fowchart for the documentation process of the Fakara database.

Flowchart legend

Definition phase

- a. In the Fakara metadatabase case, data included a variety of formats, sources, topics and disciplines. Metadata creation was not restricted to geospatial data and included references for datasets that were not georeferenced *a priori*. Geographical extent was bound by the limits of the Fakara region.
- b. c. See Table 1.
- d. Priority was given to encoding tools that helped simplify interactions with participating scientists (free, customizable, network-based) and met the wide-spread Content Standard for Digital Geospatial Metadata (CSDGM): M3Cat v. 1.5. For higher-level editing, ArcCatalog v. 9.0 was used. Links to other popular choices are at: http://www.csi.cgiar.org/metadata/Metadata_Tools.asp. With help from IT department, M3Cat was installed on the Sadoré local area network and made visible from the internet at: <http://icrisatssc.cgiar.org/M3Cat>. Appropriate security restrictions were applied for each of xx individual users.
- e. Participating scientists received initial exposure to the CSDGM metadata file structure during the introductory M3Cat software demonstration session.
- f. The creation of templates and standard values by the technical team allowed for automatic filling of repetitive metadata (e.g., data holder contact information) and masking out inappropriate levels of detail to facilitate inputs by scientists and accelerate metadata encoding.

Main iterative loop

1. The kernel record includes the title of the dataset (as provided during the inception meeting), and repetitive details such as scientific (data holder) and technical (metadata encoder) contact information.
2. Initial request sent by personal email.
3. The encoding technician visited Sadoré-based scientists in their offices to train them in the use of M3Cat online.
4. Using M3Cat online, individual scientists / data holders encoded CSDGM sections on...
5. Upon completion of scientist input, all M3Cat edits are stored in an online, password-protected Microsoft Access .MDB database containing individual metadata records.
7. Encoding technician visited the scientist to jointly review metadata sections 1,2 using M3Cat online tool.
- 7'. Bounding coordinates for the Fakara region, see a/ above.
14. Encoding technician visited the scientist to jointly review metadata sections 3,4,5 using M3Cat online tool.
17. A description of the USGS metadata parser, error reporting and online version are available at: <http://geology.usgs.gov/tools/metadata/tools/doc/mp.html>.
- 19'. This step involved individual verification of metadata record printouts for content discrepancies and errors.

Packaging and delivery

26. Color quicklook images were generated in ArcGIS9.0.

Annexe 1: Learnings from the Fakara case study, and recommendations for research data documentation at ICRISAT

Let us briefly review the major incentives of metadata creation. They can be summarized in six categories: i/ help potential users *retrieve data* and *evaluate fitness*, ii/ help data producers *publicize and support use* of data, iii/ *increase the value* of data as potential users are more likely to retrieve information about it and make proper use of it, iv/ *protect an organization's investment* in data throughout the years, v/ *limit loss of value* that affects undocumented data with staff changes, and vi/ *reduce duplication* of datasets arising from lack of confidence in existing data.

The various advantages associated with the efficient and effective production of relevant metadata are hardly disputable: proper research data documentation is very important and an enabling environment is required. However, the potential high burden of metadata creation calls for special attention when devising dedicated institutional mechanisms. Learnings from the Fakara case study have been compiled below with synthetic recommendations for data documentation at ICRISAT:

1. Dedicated human resources are mandatory. At the technical level, metadata creation cannot be done without encoders, who play a role comparable to genebank technicians or librarians. They sort, clean and store metadata records and maintain the integrity and security of the metadatabase under the supervision of a data manager (equivalent of the chief librarian). The complex nature of metadata edition requires dedicated time which is not available in most scientists schedules, and specialized skills which are seldom found in many research assistants.

2. Resources should be shared, but tied to projects. There is a danger in creating 'datacratic' positions which would be disjoint from project needs and objectives. One reasonable option could be to hire one data manager per region (ESA, SEA, WCA) for proximal coordination and backstopping. Local encoding skills would be developed at the country level, either through one IT and/or GIS technician availed part-time to a suite of projects, or through capacity building within existing project staff. Oversight and commitment of project leaders should be sought.

3. Raising awareness among scientists is essential. Of particular importance is the need to build trust, by explaining that i/ sharing metadata is not about releasing one's data in the wild, and that ii/ appropriate restrictions can be easily controlled by scientists for adequate data security. Building trust in the process of data documentation will also be achieved by sensible use of scientists' limited time. This in turn requires good interpersonal skills in metadata encoders in addition to their technical capacity.

4. Software solutions are generally not a constraint, but they vary in complexity and across scientific disciplines as do metadata standards and formats. There is no one-size-fits-all metadata editor or utility, which substantiates the need for dedicated, conversant staff. Some software (e.g. M3Cat) allow for quick learning and direct use by non-specialists (e.g. project leaders). Many are network-based, accessible through web

browser interfaces, and open-source, hence easing procurement, deployment and scientists' input.

5. Targeted investments can efficiently document past data. Although *a posteriori* metadata encoding requires additional efforts (resources), limited investments can go a long way when areas of interest have been identified by donor partners. One successful approach to priority setting is to pinpoint geographical areas of project overlap, as in the Fakara region. A list of similar benchmark sites (Kenya: Machakos, Zimbabwe: Tsholotsho, etc.) can be assembled and showcased to potential donors as low risk, high return investments for past data salvage – especially when built in project proposals by scientists.

6. Reliable network connectivity is important when working with a large group of data producers in a decentralized structure. Network-based tools, open-source or commercial, can significantly decrease the time and costs of data documentation, (meta-)database synchronization, versioning, and internal consistency. The Fakara exercise has demonstrated that connectivity in ICRISAT-Sadoré (Niger) is not adequate with insufficient bandwidths. Other ICRISAT locations probably face similar constraints (e.g. ICRISAT-Matopos, Zimbabwe). Close interactions with IT personnel is critical for the successful implementation of distributed (meta-) databases.

7. A (meta-) data management policy is needed. *Inter alia*, it should define ICRISAT's data lifecycles (data sharing timeline), obligations for data producers from a data documentation perspective (building metadata creation within projects, metadata sharing timeline, compliance with accepted standards and formats, etc.). It should emphasize the need (obligation?) to plan for metadatabase creation upfront at the time of project inception. In addition to future datasets, it should also cater for past data, which is by far the biggest burden facing an organization as many data creators have left.

8. A visioning workshop on data management is recommended. It should be trans-disciplinary and involve data-intensive and less intensive groups; field and laboratory data producers; genetic (e.g. bioinformatics) and environmental (e.g. GIS) groups; IT, library services, management. It should not focus on the definition of minimum metadatasets (done in the 1990s), should marginally address the issue of metadata standards/contents (mostly for information purposes), and should mainly concentrate on finalizing an Institute-wide (meta-) data policy with enabling/enforcing mechanisms: resources, rules and tools to facilitate (meta-) data flow.

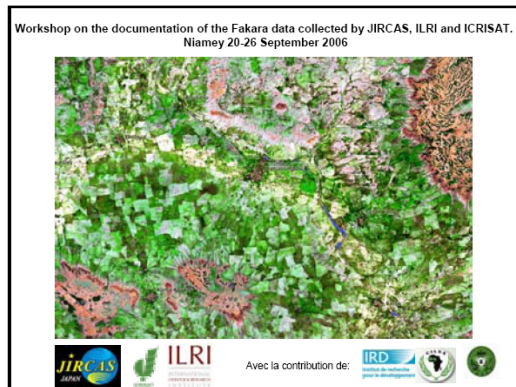
9. A technical (meta-) data management task force is advisable. It would strive to facilitate the exchange of information and software solutions to customize and automate the process of research data documentation. It should foster an enhanced level of interactions between IT staff and the different research teams, that reaches beyond traditional hardware and networking issues to address specific programming and computing needs: interfacing software from different disciplines, improving the basic

'batching and scripting' ability of research staff, etc. in pursuit of enhanced, coordinated institute-wide data management.

10. Online serving of (meta-) data is the ultimate goal. However efficient and effective the sharing of information is within a group, a project team, or the Institute, the largest benefits of (meta-) data creation are reaped when the latter is published before a wider audience of existing and potential partners (with appropriate security restrictions, e.g. through granularity). In the CGIAR terminology, the concept of (meta-) data serving is intimately tied to that of International Public Goods (IPGs). It is important to realize that documenting existing and past data can prove a cost and time effective way of posting IPGs. To that purpose, more attention can be directed to developing resources such as the ICT-KM program and associated tools, such as the CSI-sponsored GeoNetwork (an FAO-born open-source solution for networked, georeferenced (meta-) data serving). The Fakara metadatabase will need to be visible shortly on the ICRISAT GeoNetwork node.

11. Georeferencing field data should be mandatory. The value of numerous field data (trials, experiments) can significantly decrease when their spatial location is not adequately consigned. While there are ways to georeference ground data *a posteriori* (e.g. using village names and gazetteers), the recovery process almost always involves some loss of precision and usability. In the era of cheap GPS, GPS-patched PDAs and other navigational gadgets it is not acceptable to gather ground data without geographical coordinates. There are many electronic data collection tools to plan and facilitate the collection process, some better than others. **Paper survey sheets should be a thing of the past.** Advanced expertise in the design and use of electronic data forms with GPS-enabled field computers is available from ICRISAT GIS staff, along with high-precision georeferencing solutions for field-scale processes.

Annexe 2: Power Point Presentations



Background (1)

Fakara region:

- located 60 km east of Niamey
- privileged area for a series of studies at the landscape scale
- earlier work initiated by ILRI team (Pierre Hiernaux, Matthew Turner)
- study of livestock mediated nutrient cycling in typical South-Saharan crop-livestock systems

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Background (2)

- ILRI approach was holistic -> intensive data collects from 1994 to 2001
- area of 500 km²
- early 2000, ICRISAT involvement: characterization and in-situ evaluation of technologies
- 2003-2004: JIRCAS special projet; DGDC/ICRISAT project; DMP project; Agrhymet impact of climate change project ...

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Background (3)

Secondary data:

- IRD/CNES/CESBIO lead HAPEX-Sahel project (Hydrological and Atmospheric Pilot Experiment in the Sahel, 1990-1992)
- African Monsoon Multidisciplinary Analysis (AMMA) (ICRISAT has recently signed a Data Agreement with AMMA/IRD allowing access to several data sets and satellite images collected within this project)
- INRAN (Gandah et al.)
- UCL
-

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Background (4)

Secondary data:

- Free distribution data i.e. Landsat, SRTM,

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Today's situation:

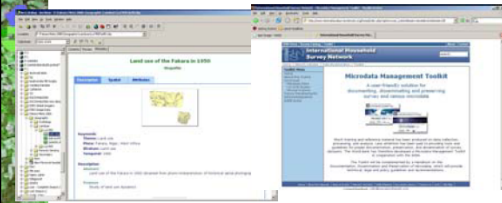
- Data are not properly documented
- Difficult to capitalize on data collected by collaborating institutions
- Data sharing is very limited
- Important data sets may be lost



Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

JIRCAS Commissioned Research:

Objective:
Document Fakara Data collected in the Fakara area by ILRI, ICRISAT and JIRCAS, according to recognized standards and software



Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

JIRCAS Commissioned Research:

Workplan:

- 1) Completion of the inventory of available data, by September 2006 through interaction with concerned scientists and a workshop
- 2) Encoding of data, by December 2006
- 3) Finalization of the Fakara Metadatabase document and submission of final report with publication list to JIRCAS, by January 2007

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Workshop objectives:

- 1) Complete the inventory of bio-physical, socio-economic data sets (spatially explicit or not) collected over the Fakara region by the three institutions (JIRCAS, ICRISAT, ILRI)
- 2) Refine guidelines for metadabase creation and data sharing (procedure, tools, sharing rules)

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Workshop objectives:

- 3) Share past on going research objectives protocols and results and future research plans for better integration of research of the three institutions and future data requirements
- 4) Establish clear protocols between ICRISAT staff responsible for metadata encoding and data owners (scientists) to facilitate metadata collection/encoding during the period October-November 2006.

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Programme Wednesday 20 September :

- 9:30-9:45 Opening statement (R. Matsunaga)
- 9:45-10:15 Presentation of the objectives (B. Gérard)
- 10:15-10:45 Why documenting research data? Is it worth the extra-effort? (P.S. Traoré)
- 10:45-11:15 Coffee break
- 11:15-12:15 Presentation of ILRI past and on-going research in the Fakara (A. Ayantunde)
- 12:15-13:15 Lunch
- 13:15-14:00 Presentation of JIRCAS research in the Fakara (S. Hitoshi, K.Hayashi, R. Matsunaga)
- 14:00-14:45 Presentation of ICRISAT research in the Fakara (F. Dougbéji, B. Gérard, R. Tabo)
- 14:45-15:15 Coffee break
- 15:15-15:45 Inventory of Fakara secondary data sets (B. Gérard)
- 15:45-16:15 Activities of AMMA in the Fakara (J.L. Rajot and L. Descroix)

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Programme Thursday 21 September :

- 8:30-10:30 Tools and methods for data documentation (P.S. Traore, M. Binta, A. Laouali, B. Gérard)
- 10:30-10:45 Coffee break
- 10:45-12:00 Agrhythm experience with metadata and data sharing such as AP3A (H. Nouaga, I. Garba)
- 12:00-13:00 Lunch
- 13:00-14:00 Guidelines on completing the inventory
- 14:00-17:00 Workgroup per institution to complete a detailed inventory

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Programme Friday 22 September :

•8:30-10:30	JIRCAS, ILRI, ICRISAT	Presentation of the detailed inventory by ICRISAT
•10:30-10:45		Coffee break
•10:45-12:00		Discussion on the user interface for the metadatabase
•12:00-13:00		Lunch
•13:00-15:00		Planning of interaction between ICRISAT staff responsible for metadatabase creation and data owners/custodians

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Programme Monday 25 September and Tuesday 26 September :

Monday:

All day: Work session of the ICRISAT staff and interaction with data custodians as required

Tuesday:

Morning: Work session of the ICRISAT staff interaction with data custodians as required

Afternoon: Debriefing session: Presentation of the work realized and discussion of the modalities/time frame to complete the exercise

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Participants :

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 P.S. Traore^{2,3} (ICRISAT, Bamako)

¹ data owner/custodian, ² metadatabase building, ³ resource person

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Title. The name by which the resource is formally known.

Subject. The topic of the resource.

Description. An abstract, a table of contents, or a free-text account of the content.

Type. The nature or genre of the content of the resource (e.g., a survey questionnaire, a data processing syntax program, a map).

Source. A reference to a resource (e.g., a PDF filename, or a website URL).

Relation. A reference to a related resource (this element will rarely be used).

Coverage. The extent or scope of the content of the resource. Coverage will typically include spatial location (e.g., a country), or a temporal period (a date or date range).

Creator. The person(s), organization(s), or service(s) responsible for making the content of the resource.

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT

Publisher. The person(s), organization(s), or service(s) responsible for making the resource available.

Contributor. The person(s), organization(s), or service(s) having contributed to the content of the resource.

Rights. A rights management statement for the resource.

Date. A date associated with an event in the life cycle of the resource. Typically, Date will be associated with the creation or availability of the resource.

Format. May be used to determine the software, hardware or other equipment needed to display or operate the resource (e.g., "STATA Version 8"; or "MS-Excel 2000").

Identifier. An unambiguous reference to the resource within a given context. Examples of formal identification systems include the Uniform Resource Locator (URL), and the International Standard Book Number (ISBN).

Language. A language of the intellectual content of the

Workshop on the documentation of the Fakara data collected by JIRCAS, ILRI and ICRISAT



Why **documenting** research data? Is it worth the extra effort?

P.S. Traoré & al.



ICRIAT/ILRI-JIRCAS Fikara metadata workshop, 20-26 Sept. 2006

Outline

- Laying the foundation: scientists and the data
[investment in data][geospatial case]
- what are metadata and why they are important
[definition][the burden]
- what is a dataset?
[definitions][series-level][feature-level][geospatial, attribute features]
- CSDGM = the FGDC standard
[ask Binta]
- Metadata errors and tips
[10 common errors][metadata checklist]
- The next step: serving (meta)data
[online][GeoNetwork][IMS]
- Closing the loop: meta-crap and the meta-utopia...
[Fakara Inc.]?


ICRIAT/ILRI-JIRCAS Fikara metadata workshop, 20-26 Sept. 2006

Gathering, generating data: a considerable investment for ag. scientists

- field data, lab data
- biophysical, socio-economic data
- proprietary, 3rd party data
- specialized, disciplinary data
- spatialized or not

Trends in data gathering / data generation

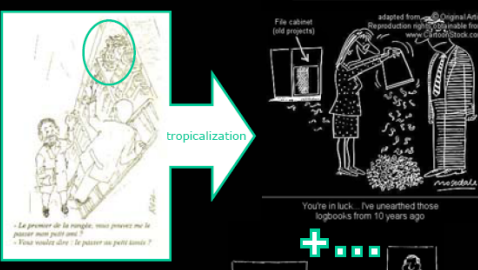
- data quality / data quantity paradigm = consequence for metadata
- remote sensing share of data provision growing – just a matter of time (technology driven)
- increase in connectivity =
- increase in stochasticity = increase in dataset sizes
- fall of the King data, rise of the Queen metadata?



ICRIAT/ILRI-JIRCAS Fikara metadata workshop, 20-26 Sept. 2006

However...

typical version... with help of hermites




File cabinet (old presents)

digital from... original from... available from...

You're in luck. I've unearthed those logbooks from 10 years ago

tropealization



ICRIAT/ILRI-JIRCAS Fikara metadata workshop, 20-26 Sept. 2006

Recent trends with geospatial datasets

GIS boom over relatively short time has generated many undocumented geospatial datasets => 2 problems:

- absence of documentation shielded existing datasets to many potential users
- lack of info. on technical characteristics raised doubts on data fitness for other potential applications

This general lack of knowledge (rather than a lack of resources) forced GIS institutions to spend considerable \$\$\$ on data production (duplication) and limited time available for data analysis

Since the 1990s the problem of standardizing GIS data descriptions was addressed with 2 objectives:

- document a set of characteristics of GIS datasets that can make the information more useful for third parties
- use machine readable standards so that GIS community can easily retrieve useful datasets for given thematic/geographic attributes using online search engines

Expected outcomes = spread of knowledge of existing data, less duplication of data, more data analysis

ICRIAT/ILRI-JIRCAS Fikara metadata workshop, 20-26 Sept. 2006

Metadata = "data about data"... definitions:

Meta = change or transformation

Data = factual information used as a basis for reasoning

Metadata = factual information used as a basis for reasoning which describes a change or transformation (ouch...). In fact, that is exactly what metadata is.

For the Federal Geographic Data Committee (FGDC), metadata is data about the content, quality, condition, and other characteristics of data. Metadata is that component of data which describes itself.

In terms of a GIS, however, metadata is used to describe how the geospatial and attribute data was collected and processed into its final form. Metadata, though not always an obviously visible component of a GIS, is just as important as the geospatial and attribute components.

(ESRI, 2005 – Protecting your investment in data with metadata)

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Metadata = "data about data"... examples

ARC/INFO 1999
 ArcObjects developer's guide ArcInfo 9
 Environmental Systems Research Institute (Redlands, Calif.)

Title: **ArcObjects developer's guide ArcInfo 9**
 Publication info: Redlands, CA: Environmental Systems Research Institute, v1999
 General note: Includes index
 Map by: ESRI/ESRI/ESRI
 Title statement: ArcInfo
 Subject terms: **Computer-aided cartographic systems; Software; Manuals; etc.**
 Address subject: **Environmental Systems Research Institute (Redlands, Calif.)**

Data = ArcObjects developer's guide (not shown)
Metadata = corresponding card in library card catalog



Data = food stuff inside
Metadata = nutrition facts label



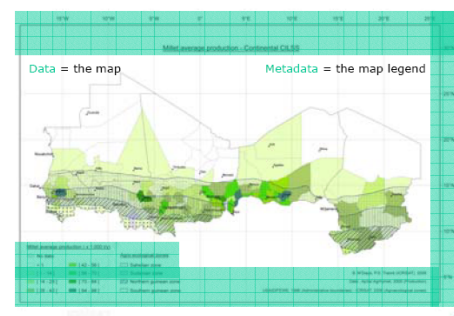
Data = photo
Metadata = backside notes



Andrea and Emma (15 mos.)
 12/02/99
 Photo @ Terry Burnette's house.

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Metadata = "data about data"... examples (contd)



Data = the map
Metadata = the map legend

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the importance of metadata

- Help potential users **retrieve data and evaluate fitness**
- Help data producers **publicize and support use of data**
- **Increase the value of data** as potential users are more likely to retrieve information about it and make proper use of it
- **Protect an organization's investment** in data throughout the years
- **Limit loss of value** that affects undocumented data with staff changes
- **Reduce duplication** of datasets arising from lack of confidence in existing data

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the burden of metadata

- **high initial time commitment** that people are often not prepared to do
- guidelines and tools can help implement **metadata policy**
- but **metadata encoding** remains dependent upon efficient software tools



- metadata policy = should apply not only to new datasets, but also previously created ones... **by far the biggest burden** for an organization, because info. required to describe past data often missed as data creators have left

⇒ postponing description of existing datasets will result in **shinking knowledge** about the datasets = **NO GOOD!**

⇒ highlights the need to **plan metadata establishment ASAP** for existing datasets

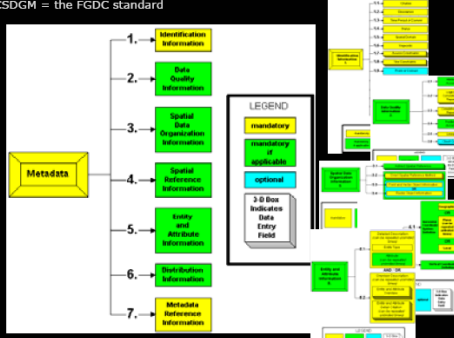
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What is a dataset? What does it mean for metadata?

- "collection of related data"
- but... **no standardized, unique definition** of geographical datasets ⇒ subjective and project/objective specific !
 - different themes belonging to same geographic area (e.g. Fikara)
 - similar themes belonging to different geographic areas (
- different GIS datasets might show different content and hierarchical structure
- **granularity** is a way to define hierarchy in a dataset, helps metadata implementation
- understanding **commonality** between elements is key... "to correctly apply a metadata standard to a dataset, it helps to understand what the single elements **share in common** and how they could **integrate inside the dataset**" (CSI, 2005) ⇒ e.g. contact, distribution infos.
- then, implementing **inheritance** is critical... "the efficient metadata management of a GIS dataset is implemented in such a way that most of the metadata info can flow from coarse level of granularity down to individual elements of the dataset" (CSI, 2005) ⇒ use of **metadata templates**

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CSDGM = the FGDC standard



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10 most common metadata errors
(see FGDC and National Metadata Cadre handout for details)

10. Define your dataset too finely or too broadly
9. Using incorrect State Plane Coordinate System Zone Identifier values
8. Confusing "Currentness Reference" with "Publication Date"
7. Misunderstanding resolution
6. Putting too much faith in metadata tools
5. Taking the minimalist approach
4. Understanding assessments of consistency, accuracy, completeness, and precision
3. Glossing over Section 5. Entity and Attributes
2. Thinking of metadata as something you do at the end of the data development process
1. Not doing it!




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Suggested Metadata Checklist (see Schweitzer1998*.pdf handout for details)

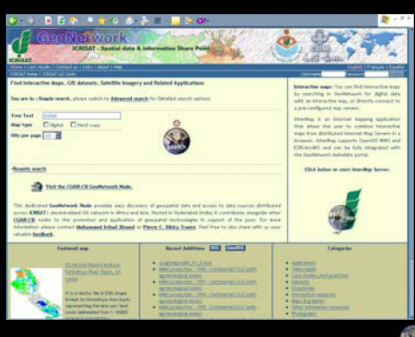
Metadata standards are specifications → they tend to emphasize fine details of geospatial data. Below are interview guidelines to fill FGDC type records

1. **What** does the dataset describe?
2. **Who** produced the dataset?
3. **Why** was the dataset created?
4. **How** was the dataset created?
5. **How reliable** are the data, and **what problems** remain in the dataset?
6. **How can one get a copy** of the dataset?
7. **Who wrote the metadata?**



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GeoNetwork



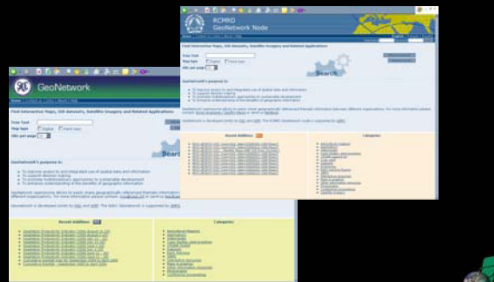
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GeoNetwork inside CGIAR




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GeoNetwork in Africa



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Metadata records on GeoNetwork nodes



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Metacrap... oops, metadata?

Cory Doctorow, 2006-2007 Canadian Fulbright Chair in Public Diplomacy:

"A world of exhaustive, reliable metadata would be a utopia. It's also a pipe-dream, founded on self-delusion, nerd hubris and hysterically inflated market opportunities" (2001)



- **metadata are too expensive and time-consuming.** Argument = companies will not produce metadata without need because they cost extra money and private users also will not produce complex metadata because their creation is very time-consuming. Thus it is not useful to create formats and standards when no one will use them.

- **metadata are too complicated.** Private users will not create metadata because existing formats, especially MPEG-7, are too complicated. As long as there are no automatic tools for creating metadata, they will not be created.

- **metadata are subjective and depend on context.** Most probably, two persons will attach different metadata to the same resource due to their different points of view. Moreover metadata can be misinterpreted due to its dependency on context.

.../... (worse to come... :-)

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Metadata bashing contd.



- **there is no end to metadata.** E.g. annotating a match of soccer with metadata one can describe all the players and their actions in time and stop there. Or one can also describe the advertising in the background and the clothes the players wear. Or one can also describe each fan on the tribune and the clothes they wear. All of these metadata can be interesting to one party or another — e.g. the spectators, sponsors or a counterterrorist unit of the police

- **metadata are useless.** Many of today's search engines allow finding texts very efficiently. There are other techniques for finding pictures, videos and music, namely query-by-example that will become more and more powerful in the future. Thus there is no real need for metadata.

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So...??



Adapted from S. Harris

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What we can contribute (Sibiry & al. in support of the JIRCAS-ILRI-ICRSAT team)

- Guidelines, documentation and backstopping on best practices in metadata edition and sharing (e.g. automation)
- Setup of a GeoNetwork node at Sadoré and interconnection with other ICRISAT/CGIAR/third party nodes
- Provision of two ESRI courses on:
 - Protecting your Investment in Data with Metadata
 - Creating and Maintaining Metadata using ArcGIS desktop

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**Fakara Metadata base:
Method and Activities for data
documentation**

Bamako Meeting 2007/01/18

AMLaouali

Topics content

- 1- Metadata Overview
- 2- International Metadata standards
- 3- Method and Progress activities

Metadata Overview

Definitions

- **literal translation**
 - Metadata are data on data;
 - Metadata is information about data;
 - Metadata is information about information
- **improved definition**
 - Metadata is structured, encoded data that describe characteristics of information entities (Resources) to aid in the identification, discovery, assessment, and management of the described entities

Metadata Overview

Objectives

- To count and to catalogue the data,
(Geographic, Socio-economic, Agronomic... data)
- To store and to manage the metadata through a relational base
- To ensure the consultation of the catalogue... and later the access to the data
- To allow the export of the metadata to a XML... interchange format.

International Metadata standards

15 Metadata Elements

- **Content**
- **Intellectual property**
- **Version**

<ul style="list-style-type: none"> • Title • Creator/Author • Contributors • Subject/Keywords • Description • Publisher • Dates: creation; last modified 	<ul style="list-style-type: none"> • Identifier • Resource type • Format • Relation • Source • Language • Coverage • Rights
---	---

Source: Dublin Core (DC)

International Metadata standards

- Content Standards for Digital Geospatial Metadata (FGDC)
 - Identification Information
 - Data Quality Information
 - Spatial Data Organization Information
 - Spatial Reference System
 - Entity and Attribute Information
 - Distribution Information
 - Metadata Reference Information

Progress activities

Datasets documented but not approved

Scientists custodian	Institution
Ryoichi Matsunaga	JIRCAS
Keiichi Hayashi	JIRCAS
Tahirou Abdoulaye	JIRCAS
Fatondji Dougbedji	ICRISAT
Hitoshi Shinjo	JIRCAS
Uru Tanaka	JIRCAS
Augustine A. Ayantunde	ILRI

Progress activities

Non documented datasets

--Priority data

Scientists custodian	Institution
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• Hitoshi Shinjo	JIRCAS
• Pierre Hiernaux	ILRI
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--Secondary data

Thanks

Annexe 3. Participant list to the Niamey Workshop (20-26 September 2006)

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Annexe 4: A quick guide to M3Cat (Compiled from M3Cat help menus)

What is M³Cat ?

M3Cat is a tool that assist users in entering and managing metadata about geospatial data sets. Metadata consist of information that characterises data. Metadata are used to provide documentation for data. In essence, metadata answer who, what, when, where, why, and how about every facet of the data that are being documented.

Online systems for handling metadata need to rely on their being predictable in both form and content. Predictability is assured only by conformance to standards. There are many standards for metadata such as the FGDC <http://www.fgdc.gov/metadata/contstan.html> Content Standard for Digital Geospatial Metadata, the GILS standard (<http://www.gils.net/>), the NBII standard (<http://www.nbii.gov/datainfo/metadata/standards/>) and the ISO/TC211 metadata standard.

Organisations also tend to define a template of metadata for their own applications, encompassing validation rules and customisation which take into account their particularities .

What is particular about M³Cat ?

M3Cat allows users to enter metadata using any standard (Multistandard) and any language (Multilingual). It is provided with the FGDC, GILS, NBII and ISO 19115 metadata standards and in English and French. Functions are available to add other standards and/or languages.

What are the main concepts behind M³Cat ?

Users that document metadata in M3Cat must use a standard. M3Cat is delivered with 4 metadata standards: FGDC, GILS, NBII and ISO/TC211, but others can be developed.

For a specific standard, an organisation uses a profile. A profile adds the cultural aspect to a standard, in particular a language and other particularities. While an organisation cannot change the standard it can modify its profile using the label management functions.

Data managers can also define templates for specific types of data sets. For example a template for raster data set will only include the metadata elements relevant to this type of data set. A template can also add the particularities, or rules, that the organisation wants their metadata elements to follow. A template may include specific mandatory fields.

What are the main features?

M3Cat provides the necessary features to easily enter and update metadata. It also provides the following features :

- A Help menu, a guided tour, as well as the ability to obtain the significance of each metadata element.
- Online validation of metadata elements according to each profile. An offline validation that verifies metadata completeness (mandatory fields) and an approval process that can be performed by a supervisor.
- The capability to translate the metadata elements into another language. Translation is a two step process : the first step

automatically translates standards values into their equivalences in the new language, the second step presents the text values not translated and allows the user to edit them. Once the process completed, the user can change the status of the translation flag to completed.

- A Thesaurus function that manages keywords.
- The capability to store standard values (parameters) in pick lists, such as information about an organisation, reference systems, etc. These pick-lists can be defined and modified by the user.
- The capability to store metadata on different levels (parent and child) of data sets (granularity) such as at data base, map sheet, layer or entity levels with the capability for child's data sets to inherit the metadata values of their parent. Parent and child data sets must use the same metadata standard.
- A Map interface to assist in entering data sets bounding co-ordinates by panning and zooming on a map.
- The capability to make the metadata a clearinghouse node using either ISITE or MetaManager as a Z39.50 server.
- The capability to import or export metadata. Import and export files are in ASCII formats.

What is an access level for a data set?

M3Cat allows user to define an access level for a data set. This access level which is controlled by a number from 1 to 9, it allows user to restrict the access to the data set metadata.

What are users preferences?

M3Cat allows users to define their preferences when using the tool. Preferences include default language, metadata standard and template.

What are user privileges?

When login in, a user is assigned a privilege. This privilege identifies the functions the user can perform. Privileges are assigned by the Admin/users function. They include browsing, cataloguing, approval or administration privileges.

Technologies:

What do I need to run M³Cat ?

M3Cat works within a browser, Microsoft Internet Explorer version 3 and after or Netscape Navigator version 4.0 or after.

What do I need to install M³Cat ?

You need Internet Information Server under Windows NT, 95 or 98. Metadata elements are stored in either Access or Oracle.

Does M³Cat allow multiple users?

M3Cat can be used in standalone or multiple users mode.

What is the cost of M³Cat ?

M3Cat is available for free.




How do I obtain a copy of M³Cat ?

M3Cat is available on Intelec's Web site at <http://www.intelec.ca>










Alternatively a copy of M3Cat is provided on the DVD that accompanies this report

Description of available functionalities in M³Cat






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 **MANAGE SESSION**

 **Start a session**






After entering a login and password, a user can access the M³Cat menu.

[Preferences](#) are assigned to each [user](#) and the functions he has access to depend on its role ([access privileges](#)).

Notes :

- To modify a user access privileges, a user must have "administrator" privileges.


Related Subjects :

-  [Data Sets](#)
-  [Access Levels](#)
-  [Preferences](#)
-  [Access Privileges](#)
-  [Users](#)

 Top

Terminate a session

To terminate a session :




Click on  on the top screen menu. If a data set is being modified, M³Cat will ask the user whether he wishes to save its work.

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Change Preferences

[Preferences](#) include [cultural profile](#) and [template](#).





To change user preferences :

1. Select  **Preferences** from the main menu
or  **Preferences** from the top screen menu.
2. Select a [cultural profile](#) from the list.
3. Select a [template](#) from the list.
4. Click on 

Note :

-  allows the user to exit the function without modifying the preferences.


Related Subjects :

-  [Templattess](#)
-  [Preferences](#)
-  [Access Privileges](#)
-  [Cultural Profiles](#)

 Top

MANAGE DATA SETS


Browse the characteristics of a data set

1. Select  from the home page to access the [data set](#) page.
OR
Move to the [data set](#) page.
2. Click on a data set in the left part of the screen.
3. The characteristics of the data set are displayed on the right part of the screen.

Notes :

- To display child data sets, click on the "+" displayed to the left of a parent data set.

Related Subjects :




-  [Data sets](#)

 Top

Create a data set


This function can only be accessed by users with an administration, approval or cataloguing privilege.

To create a data set :


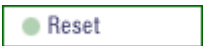
1. Select  from the main menu
or  from the top-menu.
2. Select the parent [data set](#) from the tree list (optional).
3. Enter a title.
4. Select a [template](#) from the list.
5. Select a [cultural profile](#) from the list.
6. Select an [access level](#) from the list.
7. Click on 

After the screen refresh, the new data set title will appear on the left screen tree structure.






Hint :

-  allows the user to cancel the selected parent data set without modifying the other parameters selected or entered.

Notes :

- Each title-template pair must be unique in M³Cat.
- The user name and creation date are stored with the data set characteristics.
-  allows the user to exit the function without saving the modifications.
-  allows the user to restore the default values (template, cultural profile and access levels) and to erase the "Title" field. It does not change the selected parent data set.

Related Subjects :

-  [Templates](#)
-  [Data sets \(and characteristics\)](#)
-  [Access Levels](#)
-  [Access Privileges](#)
-  [Cultural Profiles](#)



Top

Edit a data set

This function can only be accessed by users with an administration, approval or cataloguing privilege.

To edit a data set :

1. Display the data set (see function "Browse the characteristics of a data set").
2. Click on
3. If required, select the parent data set from the data set tree structure.
4. Modify the appropriate fields.
5. Click on

Notes :

- Each data set-template pair must be unique.
- The user name and modification date are stored in the data set characteristics.
- If the completion status is modified to "completed", M³Cat will verify that metadata elements exist for each mandatory field of the data set template.
- allows the user to exit the function without saving any modifications.
- allows the user to restore the default values (template, cultural profile) and to restore the data set "Title". "It does not modify the selected parent data set.

Related Subjects :

 [Data sets](#)


Top


Delete a data set

This function can only be accessed by users with an administration, approval or cataloguing privilege

To delete a data set :

1. Select the desired data set from the tree list.
2. At the [data set](#) characteristics screen click
3. Click to confirm the selection.

Notes :

-  allows the user to cancel the operation.
- All the metadata related to the data sets will be deleted.
- If a data set exist in more than one language, each one will be considered independently.





Related Subjects :

 [Data Sets](#)



Top







To search for data sets :

1. Select  from the main menu or  Search from the top menu.
2. In the new windows, enter the search criteria.
3. Click  to start the search.
4. If at least one data set meets the search criteria, the data set is displayed on the data set tree list.
5. By selecting a data set in the tree list, its characteristics are displayed on the right part of screen.
6. Press  to see the corresponding metadata.

OR

Press  to return to the previous screen.

Notes :

-  allows the user to close the search windows and apply the search results.
-  allows the user to close the search windows and not apply the search results.
-  allows the user to restore all search parameters to null values.
-  allows the user to display all data sets.

Related Subjects :


 [Data Sets](#)


Top

Approve a data set

This function can only be accessed by users with an administration, approval or cataloguing privilege

To approve a data set :

1. Display the data set for approval (see function "Browse the characteristics of a data set").
2. Click 

Notes :

- To approve a data set, its completion status must be "completed".
- The user name and approval date are entered with the data set characteristics.






Related Subjects :

 [Data sets](#)

 Top

Exporte a data set

To export a data set :

1. Select  from the main menu or  from the top menu.
2. Press "OK" to export data set(s) in XML format or "CANCEL" to export data set(s) in ASCII format.
3. Select the data set(s) to be exported from the tree list. Once the selection completed, click on  to export the data set(s).
4. Once the export process completed, M³Cat displays an hyperlink to each exported data set with the related statistics.
5. Activate the hyperlink to display the corresponding exported ASCII or XML file.
6. Click  to return to the pevious screen
7. Click  to close the Windows.

Notes :

- The ASCII file produced by the "Export" function contains the name of each metadata element and its value. The metadata are exported according to the template used.

Related Subjects :



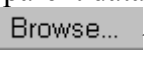


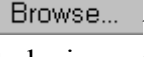


 [Data Sets](#)

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Import a data set

This function can only be used by an administrator.

To import a data set :

1. Select  from the top menu to access the "Administration" menu.
 2. Select  from the "Administration" menu.
 3. Press "OK" to import XML file(s) or "CANCEL" to import ASCII file(s).
- If you import XML file(s) :
 1. Select the cultural profile of the data set to be imported.
 2. Select the standard of the data set to be imported. For this version, only FGDC and ISO template is accepted.
 3. Select parent data set.
 4. Click  to select the XML or ZIP file containing the data set(s) to be imported.
 5. Click  to import the data set.
 6. A log report displays the result of the importation.
 7. Click  to return to the previous screen.
 - If you import ASCII file(s) :
 1. Select the cultural profile of the data set to be imported.
 2. Select the template of the data set to be imported.
 3. Select parent data set.
 4. Click  to select the ASCII or ZIP file containing the data set(s) to be imported.
 5. Click  to import the data set.
 6. A log report displays the result of the importation.
 7. Click  to return to the previous screen.

Notes :

- By default, the data set name is the name of the file.

- The function validates that the data set name does not already exist and that the metadata elements names and values are valid.
- If you use XML format, the file must be well-formed and valid according the DTD.
 - FGDC ([fgdc-std-001-1998.dtd](#))
 - ISO ([iso-min-19115.dtd](#))
- allows the user to exit the function.
- allows the user to restore the default values.

Related Subjects :

 [Data Sets](#)

 Top

Translate a data set

This function can only be accessed by users with an administration, approval or cataloguing privilege.

To translate a data set :

1. Select the data set from the tree list
 2. Clic on
- If the translation status is "completed" :
 1. Enter the title of the new data set and select the target cultural profile for translation.
 2. Clic on
 3. The standard metadata values and their corresponding translated values in the target cultural profile appear side by side.
 4. Clic on to proceed with the translation.

For values that do not have corresponding translations, M³Cat displays the source values.

The translated data set will then appear in the tree list, its translation status will be changed to "in progress".

- If the translation status is "in progress" :
 1. All metadata elements not translated are displayed with their original values.
 2. The user can perform the appropriate modifications.
 3. Clic

The translation status will be changed to "completed".

Notes :

- The translation function uses the template of the source data set.
- will exit the function.
- allows the user to restore the default values.

Related Subjects :

 [Data Sets](#)

 [Top](#)

MANAGE MATADATA

Browse the metadata of a data set

To browse the metadata of a data set :

1. Select from the home page to access the "[data set](#)" page.

OR

Move to the "[data set](#)" page.

2. Click on a data set on the left screen tree structure.
3. The data set characteristics are displayed.
4. Click on on the top right screen.
5. Select the "[metadata](#)" to browse on the left screen tree structure.

Notes :

- Only metadata with values are displayed in M³Cat.

Related Subjects :

[? Metadata](#)

[? Data Sets](#)



[? Enter/Edit the metadata of a data set](#)

This function can only be accessed by users with a cataloguing, approval or administration privilege.

To edit metadata :

1. Display the "[metadata](#)" of the data set (see function "Browse the metadata of a data set").
2. Click on on the screen upper-right corner.
3. Enter new values for metadata elements by first identifying the metadata element group on the left screen tree structure and then entering the appropriate values.
4. Click on

Notes :

- The "R" button to the left of a metadata element indicates the possibility to enter recursive metadata. It allows the user to display a new block of metadata linked to the current block.
- The "+" button to the left of a metadata element allows the user to enter multiple occurrences of the same metadata (one to many relationship).
- The "-" button to the left of a metadata element allows the user to delete a block of recursive metadata.
- The "-" button in pair with the "+" button, to the left of a metadata element allows the user to delete this metadata element occurrence (when a one to many relationship has been defined).
- The list of values to the right of a block of metadata elements are associated with "[standard values](#)".
- Radio-buttons allow the user to select an option for blocks of metadata elements. If a radio-button option was previously used, the metadata values associated with the block will be deleted.
- allows the user to restore all fields to their default values.
- allows the user to exit the function without making modifications.

Related Subjects :





[? Data sets](#)

[? Standard Values](#)





Copy the metadata from a data set




To copy the metadata of a data set :

1. Display the "[metadata](#)" of the data set (see function "Browse the metadata of a data set").
2. Click on  on the screen upper-right corner.
3. Select a source "[data set](#)" on the left screen tree structure. A search may be used to identify the source data set.
 - Enter search criteria.
 - Click on .
 - Repeat, until the source data set is identified.
4. Click on .
5. Click on .

Notes :

- This operation is normally used when first entering metadata for a data set but can be used at anytime. In all cases the existing metadata are replaced.
- The "[template](#)" of the source data set can be different from the "[template](#)" of the target data set.
- Both the source "[template](#)" and the target "[template](#)" must belong to the same standard.
- M³Cat will copy all metadata values from the source data set that exist in the target data set.
-  allows the user to restore all fields to their default values.
-  allows the user to exit the function without making modifications.


Related Subjects :

-  [Metadata](#)
-  [Data Sets](#)
-  [Templates](#)



Import lists values

To import a value list :

1. Select  from the top menu to access the "Administration" menu.

2. Select from the "Administration" menu.
3. Click on
4. Select a template from the list.
5. Enter the path and file name of the import file or click on to select the file.
6. Click on

Notes :

- Each line of the import text file corresponds to a list of values to be imported. The first word is the metadata element name and the rest of the fields are the values separated by semicolons.
- The number of values that can be imported is limited to 500.
- allows the user to empty the text field when a bad file name is selected.
- allows the user to exit the function without making modifications.

Related Subjects :

 [Data sets](#)

 Top

 **Select graphically the spatial extent of a data set**

This function can only be accessed by users with a cataloguing, approval or administration privilege.

To select graphically the spatial extent of a data set :


1. Display metadata elements allowing the entry of spatial extent (see function "Browse the metadata of a data set).
2. Click on on the top right screen.
3. Click on
4. To identify the region of interest,

use zooms and pans on the map.

OR

use the search by toponym function.

1. Enter a, or part of a, toponym in then corresponding field.

2. Click on to start searching.
3. Select the desired toponym from the list.
4. Click on to display the toponym location on the map.
5. Once the region of interest identified, click on  to enter graphically the area coordinates.
6. Enter the first point and then the second (diagonal). M³Cat will draw a rectangle and display the minimum and maximum coordinates on the screen.
7. Repeat operations 4 to 6 to enter additional areas.
8. Click on to return to the metadata page and apply the area selection.
9. The selected coordinates are entered in the appropriate metadata elements fields.
10. Click on to save the metadata.

Hints :

- Click on  to display a point coordinates.

Notes :

- Depending on the cataloguing template, when a second area is selected, M³Cat will ask the user whether the new area is an area of inclusion or exclusion of the previously selected area. If the area is an excusion, M³Cat will require an identification number.
- To center the map, click on the map at the desired location.
- Click on to return to the metadata page without applying the area selection.

Related Subjects :

 [Metadata](#)





 Top

 **MANAGE USERS**



Add a user

This function can only be accessed by a user with administration privilege.





To add a user :

1. Select  from the top menu to access the "Administration" menu.
2. Select  Users from the "Administration" menu.
3. Click on .
4. Enter a "User name" in the designated field.
(15 characters maximum.).
5. Enter the user "Complete Name" in the designated field.
(50 characters maximum.).
6. Enter a "Password" in the designated field.
(8 characters maximum.).
7. Select a "Role" ([Access privileges](#)) from the list according to the user requirements.
8. Select a "[Cultural profile](#)" from the list.
9. Select a "[Template](#)" from the list.
10. Click on .

Notes :

- The selected cultural profile and template will be assigned by default to the user. The user will then be able to change them by modifying the preferences.
-  allows the user to restore the user characteristics to their default values.
-  allows the user to exit the function without performing any modifications.

Related Subjects :

-  [Templates](#)
-  [Access Privileges](#)
-  [Cultural profiles](#)
-  [Users](#)



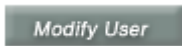



Top



Modify a user

This function can only be accessed by a user with administration privilege.





To modify a user :

1. Select  from the top menu to access the "Administration" menu.
2. Select  **Users** from the "Administration" menu.
3. Click on 
4. Select a user name from the list.
5. Make the appropriate modifications of the user characteristics (name, password, [access privileges](#), [cultural profile](#) and [template](#)).
6. Click on 

Notes :

-  allows the user to restore the user characteristics to their original values.
-  allows the user to exit the function without performing any modifications.

Related Subjects :




-  [Templates](#)
-  [Access Privileges](#)
-  [Cultural Profiles](#)
-  [Users](#)

 [Top](#)

Delete a user


This function can only be accessed by a user with administration privilege.

To delete a user :

1. Select  from the top menu to access the "Administration" menu.
2. Select  **Users** from the "Administration" menu.
3. Click on 
4. Select a user name from the list.

5. Click on 

Notes :

-  allows the user to cancel the function and return to the "Administration" menu.

Related Subjects :

 [Users](#)





 Top

MANAGE PROFILES

 **Add a cultural profile**


This function can only be used by an administrator.

To add a cultural profile :

1. Select  to access the "Administration" menu.
2. Select  Profile on the "Administration" menu.
3. Click on the  pushbutton.
4. Enter the name and description on the cultural profile.
5. Select an ISO language code and the character set code.
6. Click on  to add the cultural profile.

Notes :

-  allows the user to reset the entry fields to their default values.

-  allows the user to exit the function without performing any modification.

Related Subjects :





 [Cultural Profiles](#)

 Top



Modify a cultural profile

This function can only be used by an administrator.

To modify a cultural profile :

1. Select  to access the "Administration" menu.
2. Select  Profile on the "Administration" menu.
3. Click on the  pushbutton.
4. Select the profile from the list.
5. Modify, as needed, the name or description of the cultural profile.
6. Click  to apply the modifications.

Notes :

-  allows the user to reset the entry fields to their default values.
-  allows the user to exit the function without performing any modification.
- Only the name and description can be modified.

Related Subjects :





 [Cultural Profiles](#)

 Top


Delete a cultural profile

This function can only be used by an administrator.

To delete a cultural profile :

1. Select  to access the "Administration" menu.
2. Select  Profile on the "Administration" menu.
3. Click on the  pushbutton.
4. Select the profile from the list.
5. Once the profile displayed, click .
6. Click on "OK" to confirm or "Cancel" to cancel.

Notes :


-  allows the user to cancel the function and return to the "Administration" menu.
- M³Cat does not allow a cultural profile to be deleted if it is used by a user or a data set.
- Deleting a cultural profile will delete all its labels.

Related Subjects :

 [Cultural Profiles](#)





Top


MANAGE TEMPLATES

 **Add a template**



This function can only be accessed by a user with administration privilege.

To add a template :

1. Select  from the top menu to access the "Administration" menu.
2. Select  Templates from the "Administration" menu.
3. Click on .

4. Select a source "[template](#)" from the list.
5. Enter a "Template Name" in the field.
(50 characters max).
6. Click on 

Notes :

-  allows the user to restore all entry fields to their default values.
-  allows the user to exit the function without making modifications.

Related Subjects :





 [Template](#)


Top


Modify a template

This function can only be accessed by a user with administration privilege.

To modify a template :

1. Select  from the top menu to access the "Administration" menu.
2. Select  [Templates](#) from the "Administration" menu.
3. Click 
4. Select a "Template Name" (from the list).
5. Click on the metadata element to modify in the tree list.
6. Perform the modifications on the right part of the screen (importance of element or text field size).
7. Click 

Hints :

- Perform all the required modifications for a template before pressing on 

Notes :


- For text metadata elements, the number of characters (more or less than 250) that the field will allow can be modified.

- The reference (Standard) for metadata element importance is the reference from the published standard.
- When a metadata element becomes "not visible", all its indented (child) metadata elements also become not visible. .
- When the importance of a "not visible" metadata element is modified, all the parent metadata elements will adopt the same importance.

Related Subjects :





 [Template](#)

 Top


 **Delete a template**

This function can only be accessed by a user with administration privilege.


To delete a template :

1. Select  from the top menu to access the "Administration" menu.
2. Select  [Templates](#) from the "Administration" menu.
3. Click on .
4. Select the "Template Name" (from the list).
5. Click .

Notes :

- A template used by a data set or used as a preference cannot be deleted.
-  allows the user to exit the function without making modifications.

Related Subjects :

 [Template](#)



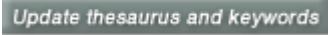

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 **MANAGE THESAURI**


Add a thesaurus

This function can only be accessed by a user with administration privilege.


To add a thesaurus :

1. Select  from the top menu to access the "Administration" menu.
2. Select  Thesauri from the "Administration" menu.
3. Click on .
4. Select a "template" from the list.
5. Select a "[thesaurus](#)" type from the list that conforms to the selected template.
6. Select a "[cultural profile](#)" from the list.
7. Ensure that no thesaurus is selected in the list of thesauri.
8. Enter a "Thesaurus Name" in the field (50 characters max).
9. Click on "+" to add the thesaurus to the list.
10. Click .





To add a keyword :

1. Ensure that no keywords are selected in the list.
2. Enter a "keyword" in the keyword field. (255 characters max).
3. Click on "+" to add the keyword to the list.
4. Click on .

Notes :

-  allows the user to restore all fields to their default values.

Related Subjects :

-  [Standard](#)
-  [Thesaurus](#)
-  [Cultural Profile](#)
-  [Keyword](#)



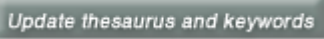



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Modify a thesaurus

This function can only be accessed by a user with administration privilege.


To modify a thesaurus :

1. Select  from the top menu to access the "Administration" menu.
2. Select  **Thesauri** from the "Administration" menu.
3. Click on  **Update thesaurus and keywords**
4. Select a "[template](#)" from the list.
5. Select a "[thesaurus](#)" type from the list.
6. Perform modifications in the "thesaurus" list.
7. Click on "+" to add the thesaurus to the existing list.
8. Click on  **Submit**

To modify a keyword :

1. Select a "[keyword](#)" from the list.
2. Perform modifications in the "keyword" field.
3. Click on "+" to modify the keyword in the list.
4. Click on  **Submit**

Notes :

-  **Reset** allows the user to restore all fields to their default values.

Related Subjects :



 [Thesaurus](#)

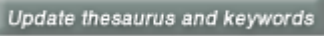

 [Top](#)

Delete a thesaurus


This function can only be accessed by a user with administration privilege.

To delete a thesaurus :


1. Select  from the top menu to access the "Administration" menu".
2. Select  **Thesauri** from the "Administration" menu.

3. Click on 
4. Select a "[template](#)" from the list.
5. Select a "[thesaurus](#)" type from the list.
6. Click on " - " to delete the thesaurus from the existing list.
7. Click on 




To delete a keyword :

1. Select a "[keyword](#)" from the list.
2. Click on " - " to delete the keyword from the list.
3. Click on 

Notes :

-  allows the user to restore the default values.

Related Subjects :





-  [Standard](#)
-  [Thesaurus](#)
-  [Keyword](#)


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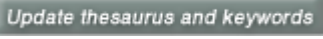

Import keywords


This function can only be accessed by a user with administration privilege.

To import keywords :


1. Select  from the top menu to access the "Administration" menu.
2. Select  from the "Administration" menu.
3. Click on 
4. Select a "[thesaurus](#)" from the list.
5. Click on "Browse..." to select the "[keywords](#)" ASCII file.
6. Click on 

Notes :

- To import keywords into a new thesaurus, add the new thesaurus first using the  function.
-  allows the user to restore all fields to their default values.

-  allows the user to exit without saving modifications.

Related Subjects :

 [Thesaurus](#)

 [Keywords](#)




 Top

MANAGE STANDARD VALUES

Add standard values

This function can only be accessed by a user with administration privilege.

To add a standard value :

1. Select  from the top menu to access the "Administration" menu.
2. Select  Standard values from the "Administration" menu.
3. Click on  Manage standard values
4. Select the tree title to display the operations that can be performed with [standard values](#).



5. Click on  Add
6. Select a template in the list

Select a template :



7. A list, will display all the metadata elements that can be a [standard value](#) for the selected template. Select an element from the list and click on




8. The selected element appears in the tree list of [standard values](#).

9. Once the element defined as a standard value, names must be given to each standard values occurrence.

10. Click on a name in the tree list.



11. Click on 

12. M³Cat asks a name for the [standard value](#).


13. Click on 

14. To enter values for this new [standard value](#) occurrence, select the value in the tree.




15. Click on 

Notes :

- You can click on  to delete a value.
- You can click on  to cancel the operation.

Related Subjects :



 [Standard Values](#)

 Top

Modify standard values

This function can only be accessed by a user with administration privilege.

To modify a standard value :

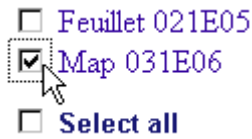
1. Select  from the top menu to access the "Administration" menu.
2. Select  [Standard values](#) from the "Administration" menu.

Manage standard values

3. Click on
4. Select a [standard value](#) from the list of existing values :



5. Click on the values associated with the standard value.
6. Click on
7. If the value is not used in a data set, the value is modified and ***Steps 8 to 10 do not apply.***
8. If the value is used by one (or many) data set (s), the data sets are displayed.



Select the data set (s) where the values must be modified and click on



9. If the user selects "all", the modifications are made to the [standard value](#) and to each data set.

Step 10 does not apply.

10. If the user only selects specific data sets, M³Cat requires a new name for the modified [standard value](#) occurrence.

Enter a name for the new standard value :

The modification will only apply to the selected data sets. Click on



The modifications are applied to the [standard value](#) and to the selected data sets.

Notes :

- allows the user to cancel the operations and return to the [standard values](#) main menu.
- allows the user to restore all fields to their default values.

Related Subjects :




[Standard Values](#)



Delete standard values

This function can only be accessed by a user with administration privilege.


To delete a standard value :



1. Select  from the top menu to access the "Administration" menu.
2. Select  **Standard values** from the "Administration" menu.
3. Click on  **Manage standard values**
4. There are two manners to delete a standard value :
 - A user can delete all the standard values associated with an element.

Select the tree title to display the operations that can be performed on [standard values](#).



Click on 

Select a [standard value](#) in the list click on 

M³Cat will then ask for confirmation of the deleted [standard value](#) click on  to cancel the operation, click on 

Warning, all the values for this standard value as well as the ones used by data sets deleted.

- A user can delete one standard value a the time.

Select a specific value in the tree.



Click on  to delete the data set.

There is no confirmation message

Contrary to the first case only the selected value is deleted.

Notes :

- The user can click on  to cancel the operation.

Related Subjects :

 [Standard Values](#)





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 **MANAGE LABELS**

 **Add labels**

This function can only be accessed by a user with administration privilege.

To add labels :


1. Select  from the top menu to access the "Administration" menu.
2. Select  **Labels** from the "Administration" menu.
3. Select a source "[cultural profile](#)" from the list.
4. Select a target "[cultural profile](#)" from the list.
5. Select a "[label type](#)" from the list.
6. Select a "[template](#)" from the list.
7. From the source side, select from the list the name of the label.
8. Click on "+" to add the label to the existing list of target labels.
9. Click on 

Hints :


- Perform all the required modifications for a target profile before pressing



Notes :

- For the labels types "message" and "code", a template is not selected.
- For the labels types "standard values" and "code", an element must be selected from the list before a label type is selected.
- Be patient, the various selections often require long waiting time.
-  allows all free text fields to be restored to their default values.

Related Subjects :

 [Cultural Profile](#)

 [Label](#)

 [Template](#)






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 **Modify labels**

This function can only be accessed by a user with administration privilege.


To modify labels :

1. Select  from the top menu to access the "Administration" menu.
2. Select  [Labels](#) from the "Administration" menu.
3. Select a source "[cultural profile](#)" from the list.
4. Select a target "[cultural profile](#)" different from the source, from the list.
5. Select a "[label type](#)" from the list.
6. Select a "[gabarit](#)" from the list.
7. On the target side, select the label name from the list.
8. On the target side, perform the modifications in the label field.
9. Click on "+" to modify the label.
10. Click on .

Hints :

- Perform all the required modifications for a target profile before pressing .

Notes :

- For the labels types "message" and "code", a template is not selected.
- For the labels types "standard values" and "code", an element must be selected from the list before a label type is selected.
- Be patient, the various selections often require long waiting time.
-  allows all free text fields to be restored to their default values.

Related Subjects :

 [Cultural Profile](#)

 [Label](#)




 [Template](#)

 [Top](#)


Delete labels

This function can only be accessed by a user with administration privilege.


To delete labels :

1. Select  from the top menu to access the "Administration" menu.
2. Select  [Labels](#) from the "Administration" menu.
3. Select a source "[cultural profile](#)" from the list.
4. Select a target "[cultural profile](#)" from the list.
5. Select a "[label type](#)" from the list.
6. Select a "[template](#)" from the list.
7. On the target side, select the label name from the list.
8. Click on " - " to delete the label from the existing target label list.
9. Click on 

Hints :

- Perform all the required modifications for a target profile before pressing 

Notes :

- For the labels types "message" and "code", a template is not selected.
- For the labels types "standard values" and "code", an element must be selected from the list before a label type is selected.
- Be patient, the various selections often require long waiting time.
-  allows all free text fields to be restored to their default values.

Related Subjects :

 [Cultural Profile](#)


 [Label](#)

 [Template](#)

 [Top](#)

USING THE HELP

Description of concepts


The  **Concepts** option of the Help menu presents a list of concepts used or mentioned in M³Cat .

A short description and, in some cases, examples allow the user to understand the meanings used in M³Cat.

The user can access the Concepts option from the Help menu or from links in the Functions option of the Help menu.

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Description of functions

The  **Functions** option of the Help menu displays the list of available functions in M³Cat.

Each group combines related functions, and a help document is available for each one. The help document is structured as follows:

Using the function :

The detailed operations necessary to perform the function.

Hints :

Hints to save time, reduce errors and make metadata cataloguing easier !


Notes :


Comments or additional information.

Related Subjects :

Links to Concepts related to the function.



 **Definition of metadata**

When metadata are displayed, the user can obtain the definition of a metadata element by pressing on the  pushbutton.



 **Frequently Asked Questions (FAQ)**

The [FAQ](#) answers the most common questions asked by users.

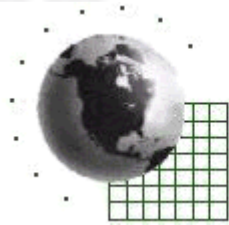
You have questions ? [Contact us !](#)



 **About M³Cat**

About M³Cat

M³Cat



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Version 1.5

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Annexe 5: Metadata in text format

(Exported from M3Cat database on 2/14/2004, metadata are subjected to changes)

Data Set Number 133: Geomorphology map, Niger 1996

Identification_Information:

Citation:

Citation_Information:

Originator: Pierre Hiernaux

Publication_Date: 1996

Title: Fakara Geomorphology map, Niger 1996

Edition: ver1

Geospatial_Data_Presentation_Form: vector digital data

Publication_Information:

Publication_Place: ILRI Niamey

Publisher: ILRI

Description:

Abstract: To help the assessment of the roles of livestock in the management of natural resources and agriculture performances, the soils and the land use were mapped over 500km² (latitude North 13° 20' - 13° 35' ; longitude East 20° 35' - 20° 52') using existing aerial photography. Land use was also mapped in 1994, 1995 and 1996 using low altitude aerial photography done with a plain 24x36 camera from a small aircraft flying at 1200m altitude. Land use maps was systematically verified during the exhaustive field survey of forage resources repeated three times a year from 1994 to 1996 and once a year in 1997 and 1998. The soil map has not been systematically checked on the ground. However, the map was used to stratify sample field sites used in the monitoring of resources and in which soil have been described. Other soil data from experiments (Delabre, Rockström, Sangaré, Gandah,) and surveys (Tropsoil, Chapell, d'Herbes, Loireau, de Row) conducted in the same village lands have been used to complete soil characterisation.

Purpose: help the assessment of the roles of livestock in the management of natural resources and agriculture performances

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1996

Currentness_Reference: publication date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.555843

East_Bounding_Coordinate: 2.886761

North_Bounding_Coordinate: 13.596402

South_Bounding_Coordinate: 13.326810

Keywords:

Theme:

Theme_Keyword_Thesaurus: GCMD

Theme_Keyword: EARTH SCIENCE > Agriculture > Soils > Soil

Classification

Theme_Keyword: EARTH SCIENCE > Agriculture > Soils > Soil

Fertility

Theme_Keyword: EARTH SCIENCE > Agriculture > Soils > Soil

Productivity

Theme_Keyword: EARTH SCIENCE > Land Surface > Geomorphology

Place:

- Place_Keyword_Thesaurus: none
- Place_Keyword: Fakara
- Place_Keyword: Niger
- Place_Keyword: West Africa

Access_Constraints: Access on request

Use_Constraints: Cite Pierre Hiernaux/ILRI when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Centre d'Etudes Spatiales de la Biosphère, CESBIO

Contact_Person: PIERRE HIERNAUX

Contact_Position: Scientist

Contact_Address:

- Address_Type: mailing and physical
- City: TOULOUSE
- Country: FRANCE

Contact_Voice_Telephone: + 33 (0) 5 61 55 85 37; + 33 (0) 5 61 55 76 24

Contact_Electronic_Mail_Address: pierre.hiernaux@cesbio.cnes.fr; pierre.hiernaux@wanadoo.fr

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description: Soils have been mapped along three criteria: the topographical position, the land form and the soil defined by the depth and the texture of the loose soil. Four main topographical situations have been distinguished: plateau and iron pan flats, up-slope, mid and down slopes, valley). Some land forms such as 'fossil dune' or 'thin sand deposits' are found in different topographic situations, others are specific to one situation such as for the alluvial plains, levees banks and channels only found in the valley. A type of texture is associated to each of these land forms allowing to establish a correspondence with the field soil classification.

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

- SDTS_Point_and_Vector_Object_Type: G-polygon
- Point_and_Vector_Object_Count: 1089

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

- Grid_Coordinate_System_Name: Universal Transverse Mercator
- Universal_Transverse_Mercator:

 - UTM_Zone_Number: 31
 - Transverse_Mercator:

 - Scale_Factor_at_Central_Meridian: 0.999600
 - Longitude_of_Central_Meridian: 3.000000
 - Latitude_of_Projection_Origin: 0.000000
 - False_Easting: 500000.000000
 - False_Northing: 0.000000

Planar_Coordinate_Information:

```

    Planar_Coordinate_Encoding_Method: coordinate pair
    Coordinate_Representation:
      Abscissa_Resolution: 0.000000
      Ordinate_Resolution: 0.000000
      Planar_Distance_Units: meters
  Geodetic_Model:
    Horizontal_Datum_Name: D_WGS_1984
    Ellipsoid_Name: WGS_1984
    Semi-major_Axis: 6378137.000000
    Denominator_of_Flattening_Ratio: 298.257224
Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label: geoutmattr
      Entity_Type_Definition_Source: Pierre Hiernaux ILRI
    Attribute:
      Attribute_Label: FID
      Attribute_Definition: Internal feature number.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
    Attribute:
      Attribute_Label: Shape
      Attribute_Definition: Feature geometry.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Coordinates defining the features.
    Attribute:
      Attribute_Label: AREA
      Attribute_Definition: Area
      Attribute_Definition_Source: Bruno Gerard
    Attribute:
      Attribute_Label: PERIMETER
      Attribute_Definition: Perimeter
      Attribute_Definition_Source: Bruno Gerard
    Attribute:
      Attribute_Label: GEOUTM_
      Attribute_Definition: Internal indexing
      Attribute_Definition_Source: Bruno Gerard
    Attribute:
      Attribute_Label: GEOUTM_ID
      Attribute_Definition: Internal indexing
      Attribute_Definition_Source: Bruno Gerard
    Attribute:
      Attribute_Label: GEOM_P
      Attribute_Definition: Geomorphology class
      Attribute_Definition_Source: Pierre Hiernaux
    Attribute:
      Attribute_Label: MOSAIC
      Attribute_Definition: Combination of geomorphology class per
geographic unit
      Attribute_Definition_Source: Bruno Gerard
    Attribute:
      Attribute_Label: DOMINENT
      Attribute_Definition: Dominent geomorphology class per geographic
unit
    Attribute:
      Attribute_Label: TOPO

```

Attribute_Definition: Toposequence
 Attribute_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: TEXTURE
 Attribute_Definition: Texture
 Attribute_Definition_Source: Soil texture
 Attribute:
 Attribute_Label: APTITUDE
 Attribute_Definition: Proeductivity of the geographic unit
 (combination of internal drainage and
 Attribute:
 Attribute_Label: TOPO_1
 Attribute_Definition: Place in toposequence
 Attribute_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: LAND_FORM
 Attribute_Definition: Land form
 Attribute_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: SOIL_TEXTU
 Attribute_Definition: Soil texture
 Attribute_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: SOIL_TYPE
 Attribute_Definition: Soil classification FAO
 Attribute:
 Attribute_Label: JERMA
 Attribute_Definition: Classification in Jerma language
 Attribute:
 Attribute_Label: FULFULDE
 Attribute_Definition: Classification in Fulfulde language
 Overview_Description:
 Entity_and_Attribute_Overview:
 - Soil types: The geology, topography and geomorpholgy settings
 - Internal drainage classes
 - Farmers classification and perception: Soil classification in
 the two main languages spoken in the village studied Jerma and Fulfulde
 ethnic groups.
 The soil agronomic aptitudes:
 The soil types defined on the base of topography, land form and
 top soil texture are grouped by level of agronomic aptitude. For this
 purpose the soil types have been ranked along a soil chemical fertility
 gradient in considering CEC, pH and organic matter content, and a soil
 infiltration gradient considering depth, topographical position,
 texture and crusting. The two gradients are combined in a matrix (Table
 10). This empirical ranking allowed the grouping of soil types into
 five categories of soil aptitude to crop:

 The loamy sands and clayed loams in colluvial and alluvial
 depression (Tv, Rv, Vv) they constitute the 'rich' soil group. These
 soils offer the highest potential for cropping, however because of
 their down position these soils are susceptible to flood rich can ruin
 the crop and the relatively fine texture of the soil render them more
 difficult to till. (Hiernaux 1996).

 The thick sandy soils moderately leached (Pd, Td, Rd, Vr, Vd),
 they constitute the 'fair' soil group. These soils are very easy to

till and offer a fair potential to crop millet and cowpea providing either manure inputs or regular fallowing.

The thick sandy soils highly leached (Rd, Vr, Vd), they constitute the 'poor' soil group. These soils are very easy to till but offer a poor potential for cropping because of the poor inherent fertility of their very sandy material.

The shallow sandy and loamy sand soils, and the highly leached alluvial sandy soils (Pl, Rl, Tr; Rr, Pe, Re, Ve), they constitute the 'marginal' soil group. These soils offer a marginal cropping potential, they are very susceptible to erosion.

The indurated and rocky soils (Pg, Pr) they constitute the 'nil' soil group. These soils are normally not arable.

Entity_and_Attribute_Detail_Citation: See Word Document by Pierre Hiernaux, 1996.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Organization: ICRISAT - ILRI

Contact_Address:

Address_Type: mailing address

City: Niamey

Country: Niger

Contact_Voice_Telephone: +0022720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc

Hours_of_Service: 8h00-16h00 pm z+1

Contact_Instructions: Contact by mailing address

Resource_Description: Fakara Geomorphology map, Niger 1996

Distribution_Liability: Restricted data, Please contact ILRI by icrisatsc@cgiar.org for getting authorization

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: shp

Transfer_Size: 1.792

Metadata_Reference_Information:

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Person: AMADOU M.Laouali

Contact_Address:

Address_Type: icrisatsc@cgiar.org

City: Niamey

Country: Niger

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org

Hours_of_Service: 8h00-16h00 pm z+1

Contact_Instructions: Prefer contact by email

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time
Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 166: Actual situation of land use for Jerma household: Fakara, Niger 2003-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 2005

Title: Actual situation of land use for Jerma household: Fakara, Niger 2003-2005

Edition: vr. 1

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\h.keiishi\actual situation of land use for jerma household\Actual situation of land use for Jerma household.dbf

Description:

Abstract: 38 farms were measured by GPS (Garmin Etrex) for 13 Jerma households in Tchigo Tegui and cultivated and non cultivated (fallow) area was identified. At the same time, a questionnaire was conducted to each household in order to estimate inputs and outputs of each surveyed farm.

Purpose:

To obtain quantitative information on actual ratio of fallow and cultivated area at household level

To measure quantitatively a capacity of food supply from actually cultivated area

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003

Ending_Date: 2005

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: millet production

Theme_Keyword: self sufficiency

Theme_Keyword: Jerma household

Place:

Place_Keyword: Fakara

Place_Keyword: Datiandou
 Place_Keyword: Niger
 Place_Keyword: West Africa
 Place_Keyword: Sahel
 Access_Constraints: Restricted
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Keiichi Hayashi
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 City: 1-1 Ohwashi, Tsukuba
 State_or_Province: Ibaraki
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6355
 Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
 Hours_of_Service: 8:00-17:00 (JST)
 Contact_Instructions: E-mail
 Data_Set_Credit: Amadou Soja (JIRCAS/ICRISAT), Tahirou Abdoulaye (JIRCAS/INRAN)
 Security_Information:
 Security_Classification: Restricted
 Native_Data_Set_Environment: Microsoft Excel; dbase ; ESRI ArcCatalog 9.0.0.535
 Cross_Reference:
 Citation_Information:
 Originator: Elias T. Ayuk
 Publication_Date: 2001
 Title: Social, economic and policy dimensions of soil organic matter
 Series_Information:
 Series_Name: Nutrient Cycling in Agroecosystems
 Issue_Identification: 61: 183195
 Publication_Information:
 Publication_Place: Netherlands
 Publisher: Kluwer Academic
 Cross_Reference:
 Citation_Information:
 Originator: Ndjeunga, J., Bationo, A.
 Publication_Date: 2005
 Title: Stochastic dominance analysis of soil fertility restoration options on sandy Sahelian soils in southwest Niger.
 Series_Information:
 Series_Name: Explimental Agriculture
 Issue_Identification: 41; 227244
 Publication_Information:
 Publication_Place: United Kingdom
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: 38 farms of 13 Jerma households in Tchigo Tegui
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Value: Number of farm

Attribute_Accuracy_Explanation: 4 farms (TTF21), 3 farms (TTF23), 2 farms (TTF46), 2 farms (TTF13), 1 farms (TTF34), 2 farms (TTF37), 7 farms (TTF8), 2 farms (TTF88), 5 farms (TTF77), 3 farms (TTF22), 3 farms (TTF54), 1 farm (T7), 3 farms (T48)

Lineage:

Process_Step:

Process_Description:

Data were collected through an interview by questionnaire in Tchigo Tegui

and were input into spreadsheet of Excel and processed by Excel

Process_Date: Not complete

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Keiuichi Hayashi

Contact_Organization: JIRCAS

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Actual situation of land use for Jerma household

Attribute:

Attribute_Label: OID

Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute_Label: C1

Attribute_Definition: Name1

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C2

Attribute_Definition: Name 2

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C3

Attribute_Definition: Household number

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C4

Attribute_Definition: Code

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C5

Attribute_Definition: Identification

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C6

Attribute_Definition: Terroire (sojya)

Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C7
Attribute_Definition: Terroire (Arcview)
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C8
Attribute_Definition: Number of farm
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C9
Attribute_Definition: Production
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C10
Attribute_Definition: Members of family
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C11
Attribute_Definition: Number of persons who work on field
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C12
Attribute_Definition: measured distance between house to field
(m)
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C13
Attribute_Definition: Distance according farmers feeling
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C14
Attribute_Definition: estimed time (mn)
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C15
Attribute_Definition: Indigenous knowledge (local name) of Main
Soil type
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C16
Attribute_Definition: Land management
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C17
Attribute_Definition: Indigenous knowledge (local name) in land
management
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C18
Attribute_Definition: Affiliation of animal
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C19
Attribute_Definition: Length of fallow (year)
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: C20

Attribute_Definition: Length of cultivation (year)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C21
 Attribute_Definition: Crop
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: Other crop
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: Category
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: Management
 Attribute_Definition_Source: Keiichi Hayashi
 Overview_Description:
 Entity_and_Attribute_Overview:
 The data set contains several attributes that are described as
 follow:
 Teroire (sojya)
 Teroire (ArcView)
 Number of farm
 Prod04
 Family
 Labor
 Distance (m)
 Distance (feeling)
 Time (min)
 IK (Main soil type): Indigenous knowledge (local name) of Main
 Soil type
 Land management
 IK Land management: Indigenous knowledge (local name) in land
 management
 Affiriation of animal
 Length of fallow (year)
 Length of cultivation (year)
 Crop
 Other crop
 Category
 Management
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural
 Sciences
 City: 1-1, Ohwashi, Tsukuba, Ibaraki,
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
Hours_of_Service: 8:00-17:00 (JST)
Contact_Instructions: http://www.jircas.affrc.go.jp
Resource_Description: Actual situation of land use for Jerma household
Distribution_Liability: Data are restricted. Users who need the data should explore the metadata file and should contact JIRCAS via his physical or mailing address
Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.025
Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niamey
 Contact_Voice_Telephone: 0022720722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Email address
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: http://www.esri.com/metadata/esriprof80.html
 Profile_Name: ESRI Metadata Profile

Data Set Number 172: area_cropped by sedentary Fulani(HS): Fakara, Niger 2005-2006

Identification_Information:

Citation:

Citation_Information:

Originator: Hitoshi Shinjo

Originator: Keiichi Hayashi

Publication_Date: Unpublished material

Title: area_cropped by sedentary Fulani(HS): Fakara, Niger 2005-2006

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\h.shinjo\area_cropped by sedentary fulani (hs)\area_cropped by sedentary Fulani(HS).dbf

Description:

Abstract: Area of cropping and corralling was investigated for 36 Fulani households settling in Fakara region. These households were selected to represent the whole households in this region in terms of number of livestock and millet yield. The boundaries for each land use was traced with hand-held GPS to estimate the area at the end of the dry seasons in 2005 and 2006. It was found that the average rate of corralling was about 3 Mg ha⁻¹. The newly settled households tended to spread the manure in the more extensive area.

Purpose: To understand the actual situation of corralling in the Fakara region to suggest realistic option for soil fertility improvement.

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: May 2005

Single_Date/Time:

Calendar_Date: May 2006

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:
 Theme_Keyword_Thesaurus: GCMD
 Theme_Keyword: EARTH SCIENCE > Agriculture > Animal Science >
 Animal Management Systems
 Theme_Keyword: EARTH SCIENCE > Agriculture > Soils > Soil
 Fertility
 Place:
 Place_Keyword_Thesaurus: Geographic Names Information System
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2005
 Temporal_Keyword: 2006
 Access_Constraints: Within project of JIRCAS/ICRISAT
 Use_Constraints: Not allowed
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: KYOTO UNIV
 Contact_Person: HITOSHI SHINJO
 Contact_Position: Assistant professor
 Contact_Address:
 Address_Type: mailing and physical
 City: KYOTO
 Country: JAPAN
 Contact_Voice_Telephone: +81757536101
 Contact_Electronic_Mail_Address: shinhit@kais.kyoto-u.ac.jp
 Hours_of_Service: 9:00-17:00 (UTC+9)
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report:
 Interview was made by Mr Amadou Sodja, JIRCAS technical assistant
 and H. Shinjo.
 Mr Sodja translated my question in French into Fulani and the
 answer of Fulani back into French. Translation may lose some nuance.
 Positional_Accuracy:
 Horizontal_Positional_Accuracy:
 Horizontal_Positional_Accuracy_Report: For tracing the
 boundaries, a Garmin GPS was used. Positional accuracy was no better
 than 5 m.
 Vertical_Positional_Accuracy:
 Vertical_Positional_Accuracy_Report: NA
 Lineage:
 Process_Step:
 Process_Description: Interview to Fulani households in three
 villages of Fakara area and input the data into spreadsheet of Excel and
 processed them by Excel
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: area_cropped by sedentary Fulani (HS)
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: Year for cropping area
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Name of Village
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Code of Farmers
 Attribute_Definition_Source: ILRI
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Total area
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Total cropping area
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C6
 Attribute_Definition: Area corralled in the dry season
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: Corraling period (month)
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Transhumance (TH)
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: Contract corral
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Contracted cows
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C11
 Attribute_Definition: Owned cows in KH 04, 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C12
 Attribute_Definition: Contracted cows in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C13
 Attribute_Definition: Entrusted Cows in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:

Attribute_Label: C14
 Attribute_Definition: Total Cows in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Owned SR in KH 04, 050
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Contracted SR 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C17
 Attribute_Definition: Entrusted SR in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Total SR in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: Cows manure input in 0505(t DM)
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C20
 Attribute_Definition: Cows manure input per ha in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C21
 Attribute_Definition: % of Cows corralled in 0505
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: Area corralled in the dry season in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: Corralling period (month)
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: Owned Cows in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Contracted Cows in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C26
 Attribute_Definition: Entrusted Cows 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C27
 Attribute_Definition: Total Cows in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C28

Attribute_Definition: Owned Sheep in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C29
 Attribute_Definition: Contracted Sheep in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C30
 Attribute_Definition: Entrusted Sheep in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C31
 Attribute_Definition: Owned Goat in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C32
 Attribute_Definition: Contracted Goat in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C33
 Attribute_Definition: Entrusted Goat in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C34
 Attribute_Definition: Total SR in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C35
 Attribute_Definition: Cows manure input (DM) in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C36
 Attribute_Definition: Cows manure input per ha in 0605
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C37
 Attribute_Definition: % of Cows corralled
 Attribute_Definition_Source: Hitoshi Shinjo
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural
 Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
 Resource_Description: Downloadable Data
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:

Transfer_Size: 0.023
Metadata_Reference_Information:
Metadata_Date: 20070117
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP : 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722529
Contact_Facsimile_Telephone: 0022720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 173: Transhumance and corralling by sedentary Fulani: Fakara, Niger 2004-2005-2006

Identification_Information:

Citation:

Citation_Information:

Originator: Hitoshi Shinjo

Originator: Keiichi Hayashi

Publication_Date: Unpublished material

Title: Transhumance and corralling by sedentary Fulani: Fakara, Niger 2004-2005-2006

Edition: 1

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\h.shinjo\transhumance and corralling by sedentary fulani\Transhumance and corralling by sedentary Fulaniv2.dbf

Description:

Abstract: Thirty six Fulani households settling in Fakara region were interviewed on transhumance, corralling, number of livestock, land tenure, etc. These households were selected to represent the whole households in this region in terms of number of livestock and millet yield. The interview was carried out for several times since November 2004. It was found that transhumance was essential for the Fulani in Kodey and Thigo Tegui, where most land was cropped, while the Fulani in Banizombou did not transhumance. Three quarters of the households interviewed did not corral at the field of the Zarma farmers. This observations strongly suggest that the Zarma farmer should seek for another option to maintain or improve soil fertility.

Purpose: To understand the actual situation of corralling in the Fakara region to suggest realistic option for soil fertility improvement.

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: November 2004

Single_Date/Time:

Calendar_Date: May 2005

Single_Date/Time:

Calendar_Date: May 2006

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954
 G-Ring_Longitude: 2.84407
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
 Theme_Keyword: Fulani
 Theme_Keyword: household
 Theme_Keyword: corralling
 Theme_Keyword: transhumance

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Kodey
 Place_Keyword: Tchigo Tegui
 Place_Keyword: Katanga
 Place_Keyword: Banizoumbou

Temporal:

Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2004
 Temporal_Keyword: 2005
 Temporal_Keyword: 2006

Access_Constraints: Within project of JIRCAS/ICRISAT

Use_Constraints: Not allowed

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:
 Contact_Organization: KYOTO UNIV
 Contact_Person: HITOSHI SHINJO
 Contact_Position: Assistant professor
 Contact_Address:
 Address_Type: mailing and physical
 City: KYOTO
 Country: JAPAN
 Contact_Voice_Telephone: +81757536101
 Contact_Electronic_Mail_Address: shinhit@kais.kyoto-u.ac.jp
 Hours_of_Service: 9:00-17:00 (UTC+9)

Data_Set_Credit: K. Hayashi, Amadou Sodja, ICRISAT, JIRCAS

Security_Information:

Security_Classification: Restricted
 Native_Data_Set_Environment: Microsoft Excel; dBASE; ESRI ArcCatalog
 9.0.0.535

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

Interview was made by Mr Amadou Sodja, JIRCAS technical assistant
 and H. Shinjo.
 Mr Sodja translated my question in French into Fulani and the
 answer of Fulani back into French. Translation may lose some nuance.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: Pierre Hiernaux

Originator: Augustine Ayatunde
Publication_Date: Unknown

Process_Step:
Process_Description: Interview to Fulani households in three villages of Fakara area and input the data into spreadsheet of Excel and processed them by Excel

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: Transhumance and corralling by sedentary Fulaniv2

Attribute:
Attribute_Label: OID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
Attribute_Label: C1
Attribute_Definition: Date
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C2
Attribute_Definition: Name of village
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C3
Attribute_Definition: Code of Household
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C4
Attribute_Definition: Location of houses
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C5
Attribute_Definition: Location of houses
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C6
Attribute_Definition: Grazing area
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C7
Attribute_Definition: Corralling
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C8
Attribute_Definition: Supplementation
Attribute_Definition_Source: Hitoshi Shinjo

Attribute:
Attribute_Label: C9

Attribute_Definition: Crops
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Note
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C11
 Attribute_Definition: Thranshumance in 2004
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C12
 Attribute_Definition: Contract corrall between 04-05
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C13
 Attribute_Definition: Contracted Cows between 04-05
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C14
 Attribute_Definition: Owned Cows
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Contracted Cows
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Entrusted Cows
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C17
 Attribute_Definition: Owned Small Ruminants
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Contracted Small Ruminants
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: Entrusted Small Ruminants
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C20
 Attribute_Definition: Transhumance in 2005
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C21
 Attribute_Definition: Contract corrall between 05-06
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: Contracted cows between 05-06
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: Owned Cows

Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: Contracted Cows
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Entrusted Cows
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C26
 Attribute_Definition: Owned Sheep
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C27
 Attribute_Definition: Contracted Sheep
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C28
 Attribute_Definition: Entrusted Sheep
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C29
 Attribute_Definition: Owned Goat
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C30
 Attribute_Definition: Contracted Goat
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: C31
 Attribute_Definition: Entrusted Goat
 Attribute_Definition_Source: Hitoshi Shinjo
 Overview_Description:
 Entity_and_Attribute_Overview:
 The data set summarize the transhumance, corralling, number of livestock and land tenure of Fulani households settling in Fakara region in 2004, 2005 and 2006. three villages of Fakara was concerned: Banizoumbou, Tigo Tegui and Kodey. The variables collected are structured as follow:

- Date: the date of interview
- Terre: name of village
- code
- Location of houses (geographic position): UTM X and UTM Y
- Grazing area
- Corralling
- Supplementation
- Crop cultivated
- transhumance system
- types of land tenure

 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences (JIRCAS)
City: Ohwashi, Tsukuba, Ibaraki
Postal_Code: 305 8686
Country: JAPAN
Contact_Voice_Telephone: +81 29 838 6330
Contact_Facsimile_Telephone: +81 29 838 6316
Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Resource_Description: Transhumance and corralling by sedentary Fulani
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Transfer_Size: 0.039
Metadata_Reference_Information:
Metadata_Date: 20070117
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Position: Consultant
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00am - 16h00pm z+1
Contact_Instructions: prefer to be contact by email
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Not define for instance
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 174: Land use in 2004 obtained from segmentation of Spot 5 image

Identification_Information:

Citation:

Citation_Information:

Originator: Christophe Coq

Publication_Date: September 2005

Title: Land use cover in 2004 obtained from segmentation of Spot 5 image

Geospatial_Data_Presentation_Form: vector digital data

Online_Linkage: \\ENGE-FROUFROU\F\metadata_fakara\Data Set Land Use\Lu2004\Lu2004UCL.shp

Description:

Abstract: Land use vectorial information was obtained in 2004 from the segmentation and object-based classification of a pansharpened orthorectified Spot 5 image taken at the end of the rainy season (28 Sept 2004). The classification used the Land Cover Classification System (LCCS) developed by FAO

Purpose: Production of continuous coverage for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:28:53

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Theme_Keyword: Spot 5

Theme_Keyword: LCCS

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2004

Access_Constraints: Available on request

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Catholic University of Louvain

Contact_Person: BRUNO GERARD

Contact_Position: Visitor Scientist

Contact_Address:

Address_Type: mailing and physical

Address: Faculty of Biological, Agronomic and Environmental
Engineering

Catholic university of Louvain
Croix du Sud, 2 bte 16
B-1348 Louvain-la-Neuve (Belgium)
Fax 32 (0) 10 47 88 98

City: Louvain-la-Neuve

Country: Belgique

Contact_Voice_Telephone: 32 (0) 10 47 92 57

Contact_Electronic_Mail_Address: b.Gerard@cgiar.org;
gerard@enge.ucl.ac.be

Data_Set_Credit: Christophe Coq, Pierre Defourny, Bruno Gerard (UCL,
ICRISAT)

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Data_Quality_Information:

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report: Spot 5 was orthorectified
using GCP surveyed with a differential GPS and SRTM DEM giving on RMSE
< 5 m

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report: not relevant

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: Spot Image

Publication_Date: 20041029

Publication_Time: 09:33:31

Title: Panchromatic scene 5 062-323 04/09/28 10:28:53 1 A and
multispectral scene 062-323/0 04/09/28 10:28:55 1 J

Geospatial_Data_Presentation_Form: remote-sensing image

Online_Linkage: <http://www.spotimage.fr>

Type_of_Source_Media: CD-ROM

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:33

Source_Currentness_Reference: ground condition

Process_Step:

Process_Description:

1) Orthorectification of pan and multispectral scenes using
SRTM MNT and GCP surveyed with differential GPS
2) Pansharpening data fusion to produce multispectral scene wit
5 m ground resolution

3) Multiscale segmentation of the image

4) Object based classification using expert knowledge for
ground cover condition and using LCCS classification scheme

Process_Date: 2005

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 117938

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000

False_Easting: 500000.000000

False_Northing: 0.000000

Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: coordinate pair

Coordinate_Representation:

Abscissa_Resolution: 0.000000

Ordinate_Resolution: 0.000000

Planar_Distance_Units: meters

Geodetic_Model:

Horizontal_Datum_Name: D_WGS_1984

Ellipsoid_Name: WGS_1984

Semi-major_Axis: 6378137.000000

Denominator_of_Flattening_Ratio: 298.257224

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Lu2004UCL

Entity_Type_Definition: Land Cover Classification System (LCCS)

Entity_Type_Definition_Source: FAO

Attribute:

Attribute_Label: FID

Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute_Label: Shape

Attribute_Definition: Feature geometry.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Coordinates defining the features.

Attribute:

Attribute_Label: ID

Attribute:

Attribute_Label: GRIDCODE

Attribute:

Attribute_Label: GRIDCODE_1

Attribute:

Attribute_Label: OCCUPATION

Attribute_Definition: Occupation

Attribute_Definition_Source: FAO LCCS

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Plateau ferreux/Croûte latéritique

Enumerated_Domain:
Enumerated_Domain_Value: Croûte arbustive fermée (fourre) et fragmentée

Enumerated_Domain:
Enumerated_Domain_Value: Végétation herbacée ouverte ((70%-60%)-40%)

Enumerated_Domain:
Enumerated_Domain_Value: Sable délié et mouvant

Enumerated_Domain:
Enumerated_Domain_Value: Champ éparpillé et isolé de culture herbacée

Enumerated_Domain:
Enumerated_Domain_Value: Champ éparpillé en amas de culture herbacée

Enumerated_Domain:
Enumerated_Domain_Value: Champ continu de culture herbacée

Enumerated_Domain:
Enumerated_Domain_Value: Zone bâtie

Enumerated_Domain:
Enumerated_Domain_Value: Surface d'eau naturelle

Enumerated_Domain:
Enumerated_Domain_Value: Surface d'eau naturelle non permanente (en mouvement)

Enumerated_Domain:
Enumerated_Domain_Value: Pas de données

Attribute:
Attribute_Label: LANDCOVER
Attribute_Definition: Land Cover
Attribute_Definition_Source: FAO LCCS
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: Ironpan/Laterie crust

Enumerated_Domain:
Enumerated_Domain_Value: Fragmented (tripped) closed shrubland (thicket)

Enumerated_Domain:
Enumerated_Domain_Value: Herbaceous open (70%-60%)-40%) vegetation

Enumerated_Domain:
Enumerated_Domain_Value: Loose and shifting sand

Enumerated_Domain:
Enumerated_Domain_Value: Scattered and isolated field of herbaceous crop

Enumerated_Domain:
Enumerated_Domain_Value: Scattered clusterd field of herbaceous crop

Enumerated_Domain:
Enumerated_Domain_Value: Conitnous herbaceous crop

Enumerated_Domain:
Enumerated_Domain_Value: Urban area

Enumerated_Domain:
Enumerated_Domain_Value: Natural waterbody

Enumerated_Domain:
Enumerated_Domain_Value: Non-perenial natural waterbody (flowing)

Enumerated_Domain:
Enumerated_Domain_Value: No data

Attribute:

Attribute_Label: UTIL
Attribute_Definition: Utilisation
Attribute_Definition_Source: FAO LCCS
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: Pâturage très extensif
Enumerated_Domain:
Enumerated_Domain_Value: Terre non cultivable
Enumerated_Domain:
Enumerated_Domain_Value: Jachère
Enumerated_Domain:
Enumerated_Domain_Value: Champ sur sol dégradé
Enumerated_Domain:
Enumerated_Domain_Value: Champ sur sol non fumé
Enumerated_Domain:
Enumerated_Domain_Value: Champ sur sol fumé
Enumerated_Domain:
Enumerated_Domain_Value: Zone bâtie
Enumerated_Domain:
Enumerated_Domain_Value: Surface d'eau naturelle
Enumerated_Domain:
Enumerated_Domain_Value: Surface d'eau naturelle non permanente (en mouvement)
Enumerated_Domain:
Enumerated_Domain_Value: Pas de données

Attribute:

Attribute_Label: USE
Attribute_Definition: LAnd use
Attribute_Definition_Source: FAO LCCS
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: Very extensive pasture land
Enumerated_Domain:
Enumerated_Domain_Value: Unsuitable for cultivation soil
Enumerated_Domain:
Enumerated_Domain_Value: Fallow
Enumerated_Domain:
Enumerated_Domain_Value: Unsuitable for cultivation soil
Enumerated_Domain:
Enumerated_Domain_Value: Field on damage soil
Enumerated_Domain:
Enumerated_Domain_Value: Unmanure field
Enumerated_Domain:
Enumerated_Domain_Value: Manure field
Enumerated_Domain:
Enumerated_Domain_Value: Urban area
Enumerated_Domain:
Enumerated_Domain_Value: Natural waterbody
Enumerated_Domain:
Enumerated_Domain_Value: Non-perennial natural waterbody (flow)
Enumerated_Domain:
Enumerated_Domain_Value: No data

Overview_Description:

Entity_and_Attribute_Overview: The data set summarize the transhumance, corralling, number of livestock and land tenure of Fulani households settling in Fakara region in 2004, 2005 and 2006. three

villages of Fakara was concerned: Banizoumbou, Tigo Tegui and Kodey.
the attributes are structured as follow:

- Date: the date of interview
- Terre: name of village
- code
- Location of houses: UTM X and UTM Y
- Grazing area
- Corralling
- transhumance
- types of land tenure

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Organization: ICRISATSC

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Resource_Description: Land use cover in 2004 obtained from
segmentation of Spot 5 image

Distribution_Liability: Restricted data

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 69.633

Metadata_Reference_Information:

Metadata_Date: 20070122

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISATSC

Contact_Person: AMADOU M.Laouali

Contact_Address:

Address_Type: mailing and physical address

City: Niamey

Country: Niamey

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Hours_of_Service: 8h00-16h00 pm z+1

Contact_Instructions: Prefer mailing contact

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: Free acces on Geonetwork

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

Data Set Number 127: Daily rainfall measurements at landscape scale with a network of raingauges in 2000 (Fakara/Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: Bruno Gerard
Publication_Date: 2000
Title: Daily rainfall measurements at landscape scale with a network of raingauges in 2000 (Fakara/Niger)
Edition: version 1
Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: Shape file for daily rainfall measurements over the Fakara region obtained for 49 raingauges. Rainfall readings have been performed by individual farmers throughout the rainy season

Purpose: Obtain spatio-temporal distribution of rainfall over the Fakara

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20000601

Ending_Date: 20001001

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.579792

East_Bounding_Coordinate: 2.881674

North_Bounding_Coordinate: 13.589260

South_Bounding_Coordinate: 13.337560

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: precipitation

Theme_Keyword: rainfall

Theme_Keyword: moisture

Theme_Keyword: water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2000

Access_Constraints: Free access

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Address:

Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Data_Set_Credit: Bruno Gerard, ICRISAT
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Data were collected from rain gauge of each village of Fakara area and were input and processed into Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 49
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: fakara_rain_2000
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI

Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.

Attribute:
 Attribute_Label: Village
 Attribute_Definition: Village in which the raingauge stands
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: X_coord
 Attribute_Definition: Longitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: Y_coord
 Attribute_Definition: Latitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: Pluvio
 Attribute_Definition: Raingauge ID Number
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: DOY152
 Attribute_Definition: Rainfall for specific day i.e DOY 152 (the first june), All subsequent columns (From DOY152 to DOY274) are daily rainfall for given day.
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: DOY274
 Attribute_Definition: Rainfall for specific day i.e DOY 152 (the first june), All subsequent columns (From DOY152 to DOY274) are daily rainfall for given day.
 Attribute_Definition_Source: Bruno Gerard

Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: PB: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatssc@cgiar.org

Resource_Description: Daily rainfall measurements at landscape scale with a network of raingauges in 2000

Distribution_Liability: Public domain, For all need, contact the following address: b.gerard@cgiar.org

Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:

Transfer_Size: 0.001
Fees: Free
Ordering_Instructions: Contact Bruno Gerard at b.gerard@cgiar.org
Metadata_Reference_Information:
Metadata_Date: 20070129
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: Cite when used
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 128: Daily rainfall measurements at landscape scale with a network of raingauges in 2001 (Fakara/Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: Bruno Gerard
Publication_Date: 2001
Title: Daily rainfall measurements at landscape scale with a network of raingauges in 2001 (Fakara/Niger)
Edition: version 1
Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: Shape file for daily rainfall measurements over the Fakara region obtained for 53 raingauges. Rainfall readings have been performed by individual farmers throughout the rainy season

Purpose: Obtain spatio-temporal distribution of rainfall over the Fakara

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20010521

Ending_Date: 20011011

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.557954

East_Bounding_Coordinate: 2.889899

North_Bounding_Coordinate: 13.589263

South_Bounding_Coordinate: 13.337523

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: precipitation

Theme_Keyword: rainfall

Theme_Keyword: moisture

Theme_Keyword: water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2001

Access_Constraints: Free access

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Address:

Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Data_Set_Credit: Bruno Gerard, ICRISAT
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Data were collected from rain gauge of each village of Fakara area and were input and processed into Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 53
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: fakara_rain_2001
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
Attribute_Label: Shape
Attribute_Definition: Feature geometry.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Coordinates defining the features.

Attribute:
Attribute_Label: Village
Attribute_Definition: Village in which the raingauge stands
Attribute_Definition_Source: Bruno Gerard

Attribute:
Attribute_Label: X_coord
Attribute_Definition: Longitude in UTM31N
Attribute_Definition_Source: Bruno Gerard

Attribute:
Attribute_Label: Y_coord
Attribute_Definition: Latitude in UTM31N
Attribute_Definition_Source: Bruno Gerard

Attribute:
Attribute_Label: DOY246
Attribute_Definition: Rainfall for specific day i.e DOY 140 (20 May), All subsequent columns (From DOY140 to DOY283) are daily rainfall for given day.
Attribute_Definition_Source: Bruno Gerard

Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Organization: ICRISAT
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: NIger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: icrisatssc@cgiar.org

Resource_Description: Downloadable Data

Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Transfer_Size: 0.002

Fees: Free

Ordering_Instructions: Contact Bruno Gerard at b.gerard@cgiar.org

Metadata_Reference_Information:
Metadata_Date: 20070129
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: Cite when used
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 129: Daily rainfall measurements at landscape scale with a network of raingauges in 2002 (Fakara/Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: Bruno Gerard

Publication_Date: 2002

Title: Daily rainfall measurements at landscape scale with a network of raingauges in 2002 (Fakara/Niger)

Edition: version 1

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: Shape file for daily rainfall measurements over the Fakara region obtained for 62 raingauges. Rainfall readings have been performed by individual farmers throughout the rainy season

Purpose: Obtain spatio-temporal distribution of rainfall over the Fakara

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20020523

Ending_Date: 20021008

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.557954

East_Bounding_Coordinate: 2.889923

North_Bounding_Coordinate: 13.589263

South_Bounding_Coordinate: 13.285846

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: precipitation

Theme_Keyword: rainfall

Theme_Keyword: moisture

Theme_Keyword: water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2002

Access_Constraints: Free access

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Address:

Address_Type: mailing and physical address

Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Data_Set_Credit: Bruno Gerard, ICRISAT
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Data were collected from rain gauge of each village of Fakara area and were input and processed into Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 62
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: fakara_rain_2002
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
 Attribute:

Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.

Attribute:

Attribute_Label: Village
 Attribute_Definition: Village in which the raingauge stands
 Attribute_Definition_Source: Bruno Gerard

Attribute:

Attribute_Label: X_coord
 Attribute_Definition: Longitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Attribute:

Attribute_Label: Pluvio_ID
 Attribute_Definition: Number of rain gauge in the village
 Attribute_Definition_Source: Bruno Gerard

Attribute:

Attribute_Label: DOY142
 Attribute_Definition: Rainfall for specific day i.e DOY 142 (22 May), All subsequent columns (From DOY139 to DOY280) are daily rainfall for given day.
 Attribute_Definition_Source: Bruno Gerard

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Resource_Description: Daily rainfall measurements at landscape scale with a network of raingauges in 2002

Distribution_Liability: Data are Public domain, contact b.gerard@cgiar.org

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:
 Transfer_Size: 0.002

Fees: Free

Ordering_Instructions: Contact Bruno Gerard at b.gerard@cgiar.org

Metadata_Reference_Information:

Metadata_Date: 20070129
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey

Country: Niamey
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Contact_Instructions: Prefer mailing contact
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: Cite when used
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 130: Daily rainfall measurements at landscape scale with a network of raingauges in 2003 (Fakara/Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: Bruno Gerard
Publication_Date: 2003
Title: Daily rainfall measurements at landscape scale with a network of raingauges in 2003 (Fakara/Niger)
Edition: version 1
Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: Shape file for daily rainfall measurements over the Fakara region obtained for 62 raingauges. Rainfall readings have been performed by individual farmers throughout the rainy season

Purpose: Obtain spatio-temporal distribution of rainfall over the Fakara

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20030603

Ending_Date: 20061026

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.557954

East_Bounding_Coordinate: 2.889923

North_Bounding_Coordinate: 13.589263

South_Bounding_Coordinate: 13.285846

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: precipitation

Theme_Keyword: rainfall

Theme_Keyword: moisture

Theme_Keyword: water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2003

Access_Constraints: Free access

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Address:

Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Data_Set_Credit: Bruno Gerard, ICRISAT
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Data were collected from rain gauge of each village of Fakara area and were input and processed into Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 62
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: fakara_rain_2003
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
Attribute_Label: Shape
Attribute_Definition: Feature geometry.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Coordinates defining the features.

Attribute:
Attribute_Label: Village
Attribute_Definition: Village in which the raingauge stands
Attribute_Definition_Source: Bruno Gerard

Attribute:
Attribute_Label: X_coord
Attribute_Definition: Longitude in UTM31N
Attribute_Definition_Source: Bruno Gerard

Attribute:
Attribute_Label: Y_coord
Attribute_Definition: Latitude in UTM31N
Attribute_Definition_Source: Bruno Gerard

Attribute:
Attribute_Label: DOY153
Attribute_Definition: Rainfall for specific day i.e DOY 153 (2 June), All subsequent columns (From DOY153 to DOY298) are daily rainfall for given day
Attribute_Definition_Source: Bruno Gerard

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
Hours_of_Service: 8H00-16H00 pm z+1
Contact_Instructions: Prefer mailing contact

Resource_Description: Daily rainfall measurements at landscape scale with a network of raingauges in 2003

Distribution_Liability:
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Transfer_Size: 0.002

Fees: Free
Ordering_Instructions: Contact Bruno Gerard at b.gerard@cgiar.org

Metadata_Reference_Information:
Metadata_Date: 20070129
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Person: AMADOU M.Laouali

Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: Cite when used
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 131: Daily rainfall measurements at landscape scale with a network of raingauges in 2004 (Fakara/Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: Bruno Gerard
Publication_Date: 2004
Title: Daily rainfall measurements at landscape scale with a network of rain gauges in 2004 (Fakara/Niger)
Edition: version 1
Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: Shape file for daily rainfall measurements over the Fakara region obtained for 56 raingauges. Rainfall readings have been performed by individual farmers throughout the rainy season

Purpose: Obtain spatio-temporal distribution of rainfall over the Fakara

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20040519

Ending_Date: 20040922

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.579792

East_Bounding_Coordinate: 2.889918

North_Bounding_Coordinate: 13.589263

South_Bounding_Coordinate: 13.296257

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: precipitation

Theme_Keyword: rainfall

Theme_Keyword: moisture

Theme_Keyword: water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2004

Access_Constraints: Free access

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Data_Set_Credit: Bruno Gerard, ICRISAT
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.0.0.535
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Data were collected from rain gauge of each village of Fakara area and were input and processed into Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 56
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000064
 Ordinate_Resolution: 0.000064
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: fakara_rain_2004
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
 Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI

Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.

Attribute:
 Attribute_Label: Village
 Attribute_Definition: Village in which the raingauge stands
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: X_coord
 Attribute_Definition: Longitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: Pluvio_ID

Attribute:
 Attribute_Label: DOY139
 Attribute_Definition: Rainfall for specific day i.e DOY 139 (19 May), All subsequent columns (From DOY139 to DOY265) are daily rainfall for given day
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: Y_coord
 Attribute_Definition: Latitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Resource_Description: Daily rainfall measurements at landscape scale with a network of rain gauges in 2004
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.002
 Fees: Free
 Ordering_Instructions: Contact Bruno Gerard at b.gerard@cgiar.org

Metadata_Reference_Information:
 Metadata_Date: 20070129
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
Contact_Instructions: Prefer mailing contact
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: Cite when used
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 132: Daily rainfall measurements at landscape scale with a network of raingauges in 2005 (Fakara/Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: Bruno Gerard
Publication_Date: 2005
Title: Daily rainfall measurements at landscape scale with a network of rain gauges in 2005 (Fakara/Niger)
Edition: Version 1
Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: Shape file for daily rainfall measurements over the Fakara region obtained for 61 raingauges. Rainfall readings have been performed by individual farmers throughout the rainy season

Purpose: Obtain spatio-temporal distribution of rainfall over the Fakara

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20050429

Ending_Date: 20051014

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.557954

East_Bounding_Coordinate: 2.889923

North_Bounding_Coordinate: 13.589263

South_Bounding_Coordinate: 13.285846

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: precipitation

Theme_Keyword: rainfall

Theme_Keyword: moisture

Theme_Keyword: water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Stratum:

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2005

Access_Constraints: Free access

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISATSC

Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Hours_of_Service: 8h00-16h00 pm z+1
 Contact_Instructions: Prefer mailing contact
 Data_Set_Credit: Bruno Gerard, ICRISAT
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Data were collected from pluviometer of each village of Fakara area and were input and processed into Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 61
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: fakara_rain_2005
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI

Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.

Attribute:
 Attribute_Label: Village
 Attribute_Definition: Village in which the rain gauge stands
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: X_coord
 Attribute_Definition: Longitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: Pluvio_ID
 Attribute_Definition: Number of rain gauge in the village
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: DOY118
 Attribute_Definition: Rainfall for specific day i.e DOY 118 (the 118th Day Of Year), All subsequent columns (From DOY118 to DOY286) are daily rainfall for given day.
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: Y_coord
 Attribute_Definition: Latitude in UTM31N
 Attribute_Definition_Source: Bruno Gerard

Attribute:
 Attribute_Label: DOY286
 Attribute_Definition: Rainfall for specific day i.e DOY 118 (the 118th Day Of Year), All subsequent columns (From DOY118 to DOY286) are daily rainfall for given day.
 Attribute_Definition_Source: Bruno Gerard

Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Hours_of_Service: 8h00-16h00 pm z+1
 Contact_Instructions: Prefer mailing contact

Resource_Description: Daily rainfall measurements at landscape scale with a network of rain gauges in 2005

Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:

Transfer_Size: 0.002
Fees: Free
Ordering_Instructions: Contact Bruno Gerard at b.gerard@cgiar.org
Metadata_Reference_Information:
Metadata_Date: 20070129
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
Hours_of_Service: 8H00-16H00 PM Z+1
Contact_Instructions: Prefer mailing contact
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: Cite when used
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 193: Katanga AWS weather data 2000 Daily Output (Fakara, Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT

Publication_Date: 20010101

Title: Katanga AWS weather data 2000 Daily Output (Fakara, Niger)

Edition: 1

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\d.fatondji\2000\katanga aws weather data 2000 daily output\Katanga AWS weather data 2000 Daily Output.dbf

Description:

Abstract:

The Kantaga weather station was installed for the first in 2000 when ICRISAT activities started in the Fakara in the form of demonstration of the strategic placement of mineral fertilizer - microdose. The station collect the following information:

1. Total rainfall (mm)
2. Rainfall intensity (mm/s) to be checked
3. Total solar radiation (mj/m2)
4. Air temperature (mini, maxi, average)
5. Air relative humidity (%)
6. Wind direction
7. Wind speed

Purpose: Make available for scientific purpose, relevant weather data to scientist.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20000601

Ending_Date: 20001231

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.53656

G-Ring_Longitude: 2.81533

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Weather

Theme_Keyword: air temperature

Theme_Keyword: climate

Theme_Keyword: rain

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: West Africa
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Katanga
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2000
 Access_Constraints: Public domain
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: DOUGBEDJI FATONDJI
 Contact_Position: Senior Scientific Officer
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404 Niamey
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 00227 20722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: d.Fatondji@cgiar.org
 Contact_Electronic_Mail_Address: d_fatondji@yahoo.com
 Hours_of_Service: Monday to Friday, From 8H am to 16H pm z+1
 Contact_Instructions: Prefer contact by email address
 Data_Set_Credit: Bruno Gerard ICRISAT Sahelian Center, PO BOx 12404
 Native_Data_Set_Environment: Microsoft Excel; dBASE; Text; ESRI
 ArcCatalog 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Automatic data collection with Campbell
 Scientific weather station
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: The data are collected with
 sensors that are mounted on the station. They generate signals that are
 converted into numbers through a Campbell Scientific data logger
 Lineage:
 Process_Step:
 Process_Description: Every three months, Data are loaded from
 weather station to computer which has Datalogger program. Data are
 stored in tables such as listed in Dataset Overview. The data files are
 compatible to both txt and excel extentions
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Katanga AWS weather data 2000 Daily Output
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI

Attribute_Domain_Values:
Attribute:
Attribute_Label: Code
Attribute_Definition: Array Id 139
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: Year
Attribute_Definition: Year
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: Jday
Attribute_Definition: Day of Year
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: H
Attribute_Definition: Hour Minute
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: Tavg
Attribute_Definition: Average Air Temperature C
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: TMAX
Attribute_Definition: Max Air Temperature C
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: TMIN
Attribute_Definition: Min Air Temperature C
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: VPAVG
Attribute_Definition: Average Vapor Pressure (kPa)
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: VPMAX
Attribute_Definition: Max Vapor Pressure (kPa)
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: VPMIN
Attribute_Definition: Min Vapor Pressure (kPa)
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: RA
Attribute_Definition: Total Solar (MJ/m2)
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: ET
Attribute_Definition: ETo - (mm/day)
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: WSMAX
Attribute_Definition: Max Wind Speed m/s
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: WSAVG
Attribute_Definition: Average Wind Speed m/s
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
Attribute_Label: RAIN
Attribute_Definition: Total Rain Fall mm
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
Attribute_Label: MAXBAT
Attribute_Definition: Max Battery Voltage
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
Attribute_Label: MINBAT
Attribute_Definition: Min Battery Voltage
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
Attribute_Label: MAXCRT
Attribute_Definition: Max CR10 Temp C
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
Attribute_Label: MINCRT
Attribute_Definition: Min CR10 Temp C
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
Attribute_Label: PROGSIGN
Attribute_Definition: CR10 Program Signature
Attribute_Definition_Source: DOUGBEDJI FATONDJI

Overview_Description:
Entity_and_Attribute_Overview:
The dataset is known and identified by: ''1440 Minute Output
(Code 139)'' and contains the following attributes:
Code: Array Id 139
Year: Year
Jday: Day of Year
H: Hour Minute
Tavg: Average Air Temperature C
Tmax: Max Air Temperature C
Tmin: Min Air Temperature C
Vpavg: Average Vapor Pressure (kPa)
Vpmax: Max Vapor Pressure (kPa)
Vpmin: Min Vapor Pressure (kPa)
Ra: Total Solar (MJ/m2)
ET: ETo - (mm/day)
Wsmax: Max Wind Speed m/s
Wsave: Average Wind Speed m/s
Rain: Total Rain Fall ? mm
MaxBat: Max Battery Voltage
MinBat: Min Battery Voltage
MaxCRT: Max CR10 Temp C
MinCRT: Min CR10 Temp C
Prosign: CR10 Program Signature

Distribution_Information:
Distributor:
Contact_Information:
Contact_Position: ICRISAT SAHELIAN CENTER
Contact_Address:
Address_Type: mailing and physical
City: NIAMEY
Country: NIGER
Contact_Voice_Telephone: 0022720722529

Contact_Voice_Telephone: 0022720722626
Contact_Facsimile_Telephone: 0022720734329
Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
Contact_Electronic_Mail_Address: d.fatondji@cgiar.org
Contact_Electronic_Mail_Address: b.gerard@cgiar.org
Hours_of_Service: 8h00am - 16h00pm z+1
Contact_Instructions: Prefer Email contact
Resource_Description: 1440 Minute Output (Code 139)
Distribution_Liability: Data are public domain. However, Users who need the data should contact ICRISAT via his physical or mailing address.
Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dbf
 Format_Version_Number: 4
 Transfer_Size: 0.048
Metadata_Reference_Information:
 Metadata_Date: 20070205
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M. Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 0022720722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16hpm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 194: Katanga AWS weather data 2000 hourly Output (Fakara, Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT

Publication_Date: 20010101

Title: Katanga AWS weather data 2000 Hourly Output (Fakara, Niger)

Edition: 1

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\d.fatondji\2000\katanga aws weather data 2000 hourly output\Katanga AWS weather data 2000 Hourly Output.dbf

Description:

Abstract:

The Kantaga weather station was installed for the first in 2000 when ICRISAT activities started in the Fakara in the form of demonstration of the strategic placement of mineral fertilizer - microdose. The station collect the following information:

1. Total rainfall (mm)
2. Rainfall intensity (mm/s) to be checked
3. Total solar radiation (mj/m2)
4. Air temperature (mini, maxi, average)
5. Air relative humidity (%)
6. Wind direction
7. Wind speed

Purpose: Make available for scientific purpose, relevant weather data to scientist.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20000601

Ending_Date: 20001231

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.53656

G-Ring_Longitude: 2.81533

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Weather

Theme_Keyword: air temperature

Theme_Keyword: climate
 Theme_Keyword: rain
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: West Africa
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Katanga
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2000
 Access_Constraints: Public domain
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: DOUGBEDJI FATONDJI
 Contact_Position: Senior Scientific Officer
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404 Niamey
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 00227 20722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: d.Fatondji@cgiar.org
 Contact_Electronic_Mail_Address: d_fatondji@yahoo.com
 Hours_of_Service: Monday to Friday, From 8H am to 16H pm z+1
 Contact_Instructions: Prefer contact by email address
 Data_Set_Credit: Bruno Gerard ICRISAT Sahelian Center, PO BOX 12404
 Native_Data_Set_Environment: Microsoft Excel; dBASE; Text; ESRI
 ArcCatalog 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Automatic data collection with Campbell
 Scientific weather station
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: The data are collected with
 sensors that are mounted on the station. They generate signals that are
 converted into numbers through a Campbell Scientific data logger
 Lineage:
 Process_Step:
 Process_Description: Every three months, Data are loaded from
 weather station to computer which has Datalogger program. Data are
 stored in tables such as listed in Dataset Overview. The data files are
 compatible to both txt and excel extentions
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Katanga AWS weather data 2000 Hourly Output
 Attribute:

Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Attribute:
 Attribute_Label: DATACODE
 Attribute_Definition: Array Id 129
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: YEAR
 Attribute_Definition: Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: JDAY
 Attribute_Definition: Day of Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: H
 Attribute_Definition: Hour Minute
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: TAVG
 Attribute_Definition: Average Air Temperature C
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: RH
 Attribute_Definition: Sample %RH
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: VPAVG
 Attribute_Definition: Average Vapor Pressure (kPa)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: RA
 Attribute_Definition: Total Solar (kJ/m2)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: ET
 Attribute_Definition: ETo (mm/hr)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: WS
 Attribute_Definition: Average Wind Speed (m/s)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: WD
 Attribute_Definition: Average Wind Direction
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: WDSTD
 Attribute_Definition: Standard Dev. of Wind Direction
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Overview_Description:
 Entity_and_Attribute_Overview:
 The dataset is known and identified by "'60 Minute Output (Code 129)'" and contains the following attributes:
 DataCode: Array Id 129

Year: Year
 Jday: Day of Year
 H: Hour Minute
 Tavg: Average Air Temperature C
 RH: Sample %RH
 Vpavg: Average Vapor Pressure (kPa)
 Ra: Total Solar (kJ/m2)
 ET: ETo (mm/hr)
 WS: Average Wind Speed (m/s)
 WD: Average Wind Direction
 WDStd: Standard Dev. of Wind Direction
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Position: ICRISAT SAHELIAN CENTER
 Contact_Address:
 Address_Type: mailing and physical
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 0022720722529
 Contact_Voice_Telephone: 0022720722626
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: d.fatondji@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Prefer Email contact
 Resource_Description: 60 Minute Output (Code 129)
 Distribution_Liability: Data are public domain. Users who need the data should contact ICRISAT via his physical or mailing address.
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dbf
 Format_Version_Number: 4
 Transfer_Size: 0.911
 Metadata_Reference_Information:
 Metadata_Date: 20070205
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M. Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 0022720722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16hpm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 195: Katanga AWS weather data 2001 Daily Output (Fakara, Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT
Publication_Date: 20020101
Title: Katanga AWS weather data 2001 Daily Output (Fakara, Niger)
Edition: 1
Geospatial_Data_Presentation_Form: tabular digital data
Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\d.fatondji\2001\katanga aws weather data 2001 daily output\Katanga AWS weather data 2001 Daily Output.dbf

Description:

Abstract:

The Kantaga weather station was installed for the first in 2000 when ICRISAT activities started in the Fakara in the form of demonstration of the strategic placement of mineral fertilizer - microdose. The station collect the following information:

1. Total rainfall (mm)
2. Rainfall intensity (mm/s) to be checked
3. Total solar radiation (mj/m2)
4. Air temperature (mini, maxi, average)
5. Air relative humidity (%)
6. Wind direction
7. Wind speed

Purpose: Make available for scientific purpose, relevant weather data to scientist.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20010101
Ending_Date: 20011231

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333
East_Bounding_Coordinate: 2.866667
North_Bounding_Coordinate: 13.583333
South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:
G-Ring_Latitude: 13.53656
G-Ring_Longitude: 2.81533

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
Theme_Keyword: Weather
Theme_Keyword: air temperature
Theme_Keyword: climate
Theme_Keyword: rain

Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: West Africa
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Katanga

Stratum:
 Stratum_Keyword_Thesaurus: none
 Stratum_Keyword: 2001

Access_Constraints: Public domain
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: DOUGBEDJI FATONDJI
 Contact_Position: Senior Scientific Officer
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404 Niamey
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 00227 20722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: d.Fatondji@cgiar.org
 Contact_Electronic_Mail_Address: d_fatondji@yahoo.com
 Hours_of_Service: Monday to Friday, From 8H am to 16H pm z+1
 Contact_Instructions: Prefer contact by email address

Data_Set_Credit: Bruno Gerard ICRISAT Sahelian Center, PO BOX 12404
 Native_Data_Set_Environment: Microsoft Excel; dBASE; Text; ESRI
 ArcCatalog 9.0.0.535

Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Automatic data collection with Campbell
 Scientific weather station
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: The data are collected with
 sensors that are mounted on the station. They generate signals that are
 converted into numbers through a Campbell Scientific data logger
 Lineage:
 Process_Step:
 Process_Description: Every three months, Data are loaded from
 weather station to computer which has Datalogger program. Data are
 stored in tables such as listed in Dataset Overview. The data files are
 compatible to both txt and excel extentions

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Point

Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Katanga AWS weather data 2001 Daily Output
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Attribute:
 Attribute_Label: Code
 Attribute_Definition: Array Id 139
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: Year
 Attribute_Definition: Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: Jday
 Attribute_Definition: Day of Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: H
 Attribute_Definition: Hour Minute
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: Tavg
 Attribute_Definition: Average Air Temperature C
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: TMAX
 Attribute_Definition: Max Air Temperature C
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: TMIN
 Attribute_Definition: Min Air Temperature C
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: VPAVG
 Attribute_Definition: Average Vapor Pressure (kPa)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: VPMAX
 Attribute_Definition: Max Vapor Pressure (kPa)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: VPMIN
 Attribute_Definition: Min Vapor Pressure (kPa)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: RA
 Attribute_Definition: Total Solar (MJ/m2)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: ET
 Attribute_Definition: ETo - (mm/day)
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: WSMAX
 Attribute_Definition: Max Wind Speed m/s
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: WSAVG
 Attribute_Definition: Average Wind Speed m/s

Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: RAIN
Attribute_Definition: Total Rain Fall mm
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: MAXBAT
Attribute_Definition: Max Battery Voltage
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: MINBAT
Attribute_Definition: Min Battery Voltage
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: MAXCRT
Attribute_Definition: Max CR10 Temp C
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: MINCRT
Attribute_Definition: Min CR10 Temp C
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
Attribute_Label: PROGSIGN
Attribute_Definition: CR10 Program Signature
Attribute_Definition_Source: DOUGBEDJI FATONDJI
Overview_Description:
Entity_and_Attribute_Overview:
The dataset is known and identified by: ''1440 Minute Output
(Code 139)'' and contains the following attributes:
Code: Array Id 139
Year: Year
Jday: Day of Year
H: Hour Minute
Tavg: Average Air Temperature C
Tmax: Max Air Temperature C
Tmin: Min Air Temperature C
Vpavg: Average Vapor Pressure (kPa)
Vpmax: Max Vapor Pressure (kPa)
Vpmin: Min Vapor Pressure (kPa)
Ra: Total Solar (MJ/m2)
ET: ETo - (mm/day)
Wsmax: Max Wind Speed m/s
Wsave: Average Wind Speed m/s
Rain: Total Rain Fall ? mm
MaxBat: Max Battery Voltage
MinBat: Min Battery Voltage
MaxCRT: Max CR10 Temp C
MinCRT: Min CR10 Temp C
Prosign: CR10 Program Signature
Distribution_Information:
Distributor:
Contact_Information:
Contact_Position: ICRISAT SAHELIAN CENTER
Contact_Address:
Address_Type: mailing and physical
City: NIAMEY
Country: NIGER

Contact_Voice_Telephone: 0022720722529
 Contact_Voice_Telephone: 0022720722626
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: d.fatondji@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Prefer Email contact
 Resource_Description: 1440 Minute Output (Code 139)
 Distribution_Liability: Data are public domain. However, Users who
 need the data should contact ICRISAT via his physical or mailing
 address.
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dbf
 Format_Version_Number: 4
 Transfer_Size: 0.048
 Metadata_Reference_Information:
 Metadata_Date: 20070205
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M. Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 0022720722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16hpm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 196: Katanga AWS weather data 2001 hourly Output (Fakara, Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT

Publication_Date: 20020101

Title: Katanga AWS weather data 2001 Hourly Output (Fakara, Niger)

Edition: 1

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\d.fatondji\2001\katanga aws weather data 2001 hourly output\Katanga AWS weather data 2001 Hourly Output.dbf

Description:

Abstract:

The Kantaga weather station was installed for the first in 2000 when ICRISAT activities started in the Fakara in the form of demonstration of the strategic placement of mineral fertilizer - microdose. The station collect the following information:

1. Total rainfall (mm)
2. Rainfall intensity (mm/s) to be checked
3. Total solar radiation (mj/m2)
4. Air temperature (mini, maxi, average)
5. Air relative humidity (%)
6. Wind direction
7. Wind speed

Purpose: Make available for scientific purpose, relevant weather data to scientist.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20010101

Ending_Date: 20011231

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.53656

G-Ring_Longitude: 2.81533

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Weather

Theme_Keyword: air temperature

Theme_Keyword: climate
 Theme_Keyword: rain
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: West Africa
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Katanga
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2001
 Access_Constraints: Public domain
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: DOUGBEDJI FATONDJI
 Contact_Position: Senior Scientific Officer
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404 Niamey
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 00227 20722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: d.Fatondji@cgiar.org
 Contact_Electronic_Mail_Address: d_fatondji@yahoo.com
 Hours_of_Service: Monday to Friday, From 8H am to 16H pm z+1
 Contact_Instructions: Prefer contact by email address
 Data_Set_Credit: Bruno Gerard ICRISAT Sahelian Center, PO BOX 12404
 Native_Data_Set_Environment: Microsoft Excel; dBASE; Text; ESRI
 ArcCatalog 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Automatic data collection with Campbell
 Scientific weather station
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: The data are collected with
 sensors that are mounted on the station. They generate signals that are
 converted into numbers through a Campbell Scientific data logger
 Lineage:
 Process_Step:
 Process_Description: Every three months, Data are loaded from
 weather station to computer which has Datalogger program. Data are
 stored in tables such as listed in Dataset Overview. The data files are
 compatible to both txt and excel extentions
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Katanga AWS weather data 2001 Hourly Output
 Attribute:


```

    Attribute_Label: OID
    Attribute_Definition: Internal feature number.
    Attribute_Definition_Source: ESRI
    Attribute_Domain_Values:
Attribute:
    Attribute_Label: DATACODE
    Attribute_Definition: Array Id 129
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: YEAR
    Attribute_Definition: Year
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: JDAY
    Attribute_Definition: Day of Year
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: H
    Attribute_Definition: Hour Minute
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: TAVG
    Attribute_Definition: Average Air Temperature C
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: RH
    Attribute_Definition: Sample %RH
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: VPAVG
    Attribute_Definition: Average Vapor Pressure (kPa)
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: RA
    Attribute_Definition: Total Solar (kJ/m2)
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: ET
    Attribute_Definition: ETo (mm/hr)
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: WS
    Attribute_Definition: Average Wind Speed (m/s)
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: WD
    Attribute_Definition: Average Wind Direction
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Attribute:
    Attribute_Label: WDSTD
    Attribute_Definition: Standard Dev. of Wind Direction
    Attribute_Definition_Source: DOUGBEDJI FATONDJI
Overview_Description:
Entity_and_Attribute_Overview:
    The dataset is known and identified by "'60 Minute Output (Code
129)'" and contains the following attributes:
    DataCode: Array Id 129

```

Year: Year
Jday: Day of Year

Data Set Number 197: Katanga AWS weather data 2001 Rainfall

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT
Publication_Date: 20020101
Title: Katanga AWS weather data 2001 Rainfall
Edition: 1
Geospatial_Data_Presentation_Form: tabular digital data
Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\d.fatondji\2001\katanga aws weather data 2001 rainfall\Katanga AWS weather data 2001 Rainfall.dbf

Description:

Abstract:

The Kantaga weather station was installed for the first in 2000 when ICRISAT activities started in the Fakara in the form of demonstration of the strategic placement of mineral fertilizer - microdose. The station collect the following information:

1. Total rainfall (mm)
2. Rainfall intensity (mm/s) to be checked
3. Total solar radiation (mj/m2)
4. Air temperature (mini, maxi, average)
5. Air relative humidity (%)
6. Wind direction
7. Wind speed

Purpose: Make available for scientific purpose, relevant weather data to scientist.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20010101

Ending_Date: 20011231

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Every three months

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.53656

G-Ring_Longitude: 2.81533

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Weather

Theme_Keyword: air temperature

Theme_Keyword: climate

Theme_Keyword: rain
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: West Africa
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Katanga
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2001
 Access_Constraints: Public domain
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: DOUGBEDJI FATONDJI
 Contact_Position: Senior Scientific Officer
 Contact_Address:
 Address_Type: mailing and physical
 Address:
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 00227 20722529
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: d.Fatondji@cgiar.org
 Contact_Electronic_Mail_Address: d_fatondji@yahoo.com
 Hours_of_Service:
 Contact_Instructions:
 Data_Set_Credit: Bruno Gerard ICRISAT Sahelian Center, PO BOx 12404
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
 2600) ; ESRI ArcCatalog 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Automatic data collection with Campbell
 Scientific weather station
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: The data are collected with
 sensors that are mounted on the station. They generate signals that are
 converted into numbers through a Campbell Scientific data logger
 Lineage:
 Process_Step:
 Process_Description: Every three months, Data are loaded from
 weather station to computer which has Datalogger program. Data are
 stored in tables such as listed in Dataset Overview. The data files are
 compatible to both txt and excel extentions
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Katanga AWS weather data 2001 Rainfall
 Attribute:
 Attribute_Label: OID

Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.

Attribute:
 Attribute_Label: DATACODE
 Attribute_Definition: Array Id 109
 Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
 Attribute_Label: YEAR
 Attribute_Definition: Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
 Attribute_Label: JDAY
 Attribute_Definition: Day of Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
 Attribute_Label: TIME
 Attribute_Definition: Hour Minute
 Attribute_Definition_Source: DOUGBEDJI FATONDJI

Attribute:
 Attribute_Label: RAININT
 Attribute_Definition: Total Rainfall Last Minute ? mm
 Attribute_Definition_Source: DOUGBEDJI FATONDJI

Overview_Description:
 Entity_and_Attribute_Overview:
 The dataset is Known and identified by : ''1 Minute Rainfall
 Intensity Output (Code 109)'' and contains the following attributes:
 DataCode: Array Id 109
 Year: Year
 Jday: Day of Year
 Time: Hour Minute
 RainInt: Total Rainfall Last Minute ? mm

Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Position: ICRISAT SAHELIAN CENTER
 Contact_Address:
 Address_Type: mailing and physical
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 0022720722529
 Contact_Voice_Telephone: 0022720722626
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: d.fatondji@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Prefer Email contact

 Resource_Description: 1 Minute Rainfall Intensity Output (Code 109)
 Distribution_Liability: Data are public domain. However Users who
 need the data should contact ICRISAT via his physical or mailing
 address.

Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:

Transfer_Size: 0.048
Metadata_Reference_Information:
Metadata_Date: 20070205
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M. Laouali
Contact_Position: Consultant
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: NIAMEY
State_or_Province: REQUIRED: The state or province of the
address.
Postal_Code: REQUIRED: The ZIP or other postal code of the
address.
Country: NIGER
Contact_Voice_Telephone: 0022720722529
Contact_Facsimile_Telephone: 0022720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00am - 16hpm z+1
Contact_Instructions: Email contact
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 198: AWS weather data 2001 Wind Speed (Fakara, Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT

Publication_Date: 20020101

Title: Katanga AWS weather data 2001 Wind Speed (Fakara, Niger)

Edition: 1

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\d.fatondji\2001\katanga aws weather data 2001 wind speed\Katanga AWS weather data 2001 Wind Speed.dbf

Description:

Abstract:

The Kantaga weather station was installed for the first in 2000 when ICRISAT activities started in the Fakara in the form of demonstration of the strategic placement of mineral fertilizer - microdose. The station collect the following information:

1. Total rainfall (mm)
2. Rainfall intensity (mm/s) to be checked
3. Total solar radiation (mj/m2)
4. Air temperature (mini, maxi, average)
5. Air relative humidity (%)
6. Wind direction
7. Wind speed

Purpose: Make available for scientific purpose, relevant weather data to scientist.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20010101

Ending_Date: 20011231

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Every three months

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.53656

G-Ring_Longitude: 2.81533

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Weather

Theme_Keyword: air temperature

Theme_Keyword: climate

Theme_Keyword: rain

Place:

- Place_Keyword_Thesaurus: None
- Place_Keyword: West Africa
- Place_Keyword: Niger
- Place_Keyword: Fakara
- Place_Keyword: Katanga

Temporal:

- Temporal_Keyword_Thesaurus: none
- Temporal_Keyword: 2001

Access_Constraints: Public domain

Use_Constraints: None

Point_of_Contact:

Contact_Information:

- Contact_Organization_Primary:

 - Contact_Organization: ICRISAT
 - Contact_Person: DOUGBEDJI FATONDJI

- Contact_Position: Senior Scientific Officer
- Contact_Address:

 - Address_Type: mailing and physical
 - Address: BP: 12404 Niamey
 - City: NIAMEY
 - Country: NIGER

- Contact_Voice_Telephone: 00227 20722529
- Contact_Facsimile_Telephone: 0022720734329
- Contact_Electronic_Mail_Address: d.Fatondji@cgiar.org
- Contact_Electronic_Mail_Address: d_fatondji@yahoo.com
- Hours_of_Service: Monday to Friday, From 8H am to 16H pm z+1
- Contact_Instructions: Prefer contact by email address

Data_Set_Credit: Bruno Gerard ICRISAT Sahelian Center, PO BOX 12404

Native_Data_Set_Environment: Microsoft Excel; dBASE; Text; ESRI ArcCatalog 9.0.0.535

Data_Quality_Information:

Attribute_Accuracy:

- Attribute_Accuracy_Report: Automatic data collection with Campbell Scientific weather station
- Quantitative_Attribute_Accuracy_Assessment:

 - Attribute_Accuracy_Explanation: The data are collected with sensors that are mounted on the station. They generate signals that are converted into numbers through a Campbell Scientific data logger

Lineage:

Process_Step:

- Process_Description: Every three months, Data are loaded from weather station to computer which has Datalogger program. Data are stored in tables such as listed in Dataset Overview. The data files are compatible to both txt and excel extentions

Spatial_Data_Organization_Information:

- Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:

- SDTS_Terms_Description:

 - SDTS_Point_and_Vector_Object_Type: Point

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

- Entity_Type_Label: Katanga AWS weather data 2001 Wind Speed

Attribute:

- Attribute_Label: OID
- Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Attribute:
 Attribute_Label: DATACODE
 Attribute_Definition: Array Id 119
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: YEAR
 Attribute_Definition: Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: JDAY
 Attribute_Definition: Day of Year
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: TIME
 Attribute_Definition: Hour Minute
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Attribute:
 Attribute_Label: WINDSPEED
 Attribute_Definition: Average Wind Speed - meters/second
 Attribute_Definition_Source: DOUGBEDJI FATONDJI
 Overview_Description:
 Entity_and_Attribute_Overview:
 The dataset is known and identified by : '1 Minute Average Wind
 >= 5 m/s Output (Code 119)' and contains the following attributes:
 DataCode: Array Id 119
 Year: Year
 Jday: Day of Year
 H: Hour Minute
 WindSpeed: Average Wind Speed - meters/second
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Position: ICRISAT SAHELIAN CENTER
 Contact_Address:
 Address_Type: mailing and physical
 City: NIAMEY
 Country: NIGER
 Contact_Voice_Telephone: 0022720722529
 Contact_Voice_Telephone: 0022720722626
 Contact_Facsimile_Telephone: 0022720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Electronic_Mail_Address: d.fatondji@cgiar.org
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Prefer Email contact
 Resource_Description: 1 Minute Average Wind >= 5 m/s Output (Code
 119)
 Distribution_Liability: Data are public domain. However Users who
 need the data should contact ICRISAT via his physical or mailing
 address.
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dbf
 Format_Version_Number: 4

Transfer_Size: 0.031
Metadata_Reference_Information:
Metadata_Date: 20070205
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M. Laouali
Contact_Position: Consultant
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: NIAMEY
Country: NIGER
Contact_Voice_Telephone: 0022720722529
Contact_Facsimile_Telephone: 0022720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00am - 16hpm z+1
Contact_Instructions: Email contact
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 134: Katanga AWS weather data 2002 Daily Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 135: Katanga AWS weather data 2002 hourly Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 136: Katanga AWS weather data 2002 Rainfall

Similar to 2001 metadata

Data Set Number 137: AWS weather data 2002 Wind Speed (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 138: Katanga AWS weather data 2003 Daily Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 139: Katanga AWS weather data 2003 hourly Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 140: Katanga AWS weather data 2003 Rainfall

Similar to 2001 metadata

Data Set Number 141: AWS weather data 2003 Wind Speed (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 142: Katanga AWS weather data 2004 Daily Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 143: Katanga AWS weather data 2004 hourly Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 144: Katanga AWS weather data 2004 Rainfall

Similar to 2001 metadata

Data Set Number 145: AWS weather data 2004 Wind Speed (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 146: Katanga AWS weather data 2005 Daily Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 147: Katanga AWS weather data 2005 hourly Output (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 148: Katanga AWS weather data 2005 Rainfall

Similar to 2001 metadata

Data Set Number 149: AWS weather data 2005 Wind Speed (Fakara, Niger)

Similar to 2001 metadata

Data Set Number 175: Land use in the Fakara in the year 1950

Identification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1950

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer, given land use in 1950 is derived from 1:50000? historical aerial photographs to contribute to the spatial budgeting and modelling work accomplished by ILRI from 1994. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1950

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.567137

East_Bounding_Coordinate: 2.883726

North_Bounding_Coordinate: 13.589355

South_Bounding_Coordinate: 13.332611

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1950

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Pierre Hiernaux and Matthieu Turner

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

1) Photos interpretations was performed stereoscopically by Pierre Hiernaux. To facilitate the completion of the work, alternating photos were used in the interpretation, rather than using the central portion of each photo, usually done to reduce parallax-related distortion.

2) Ground-control Points

In order to geometrically correct individual map files prior to merging, GPS readings were taken in at least ten locations within the area covered by each aerial photo (exception being photo 273 where ground-control points were not taken). Points were at locations identifiable on the aerial photo interpretations as well as on the ground. These points most commonly were at intersections of line features of the aerial interpretations including paths, livestock paths, field boundary hedges, wadis but also at well-defined point features such as isolated trees, and wells. Every attempt was made for points to be as evenly distributed across the photo area as possible. At least 150 GPS readings were taken at each point using a Trimble Pathfinder Basic Plus GPS Receiver. GPS data for ground-control points were collected on the following dates: 21/3/94, 24/3/94, 05/4/94, 29/7/94, 5/8/94, 16/8/94, 17/8/94, 5/9/94, 13/9/94, 27/9/94, and 28/9/94.

3) Each acetate overleaf was digitized using ATLAS-GIS for DOS software with the assistance of Moussa Mahamane and Aboubacar Maman. The land-use interpretations were digitized into separate files with the feature types of each assigned to separate layers. The land-use files were merged together using the above-mentioned corner points as common reference points.

4) In 2000 Atlas GIS layer was converted to ESRI shape file in ArcView 3 by Bruno Gerard

5) In 2006, proper projection was added to the shape file using 'define projection' in the ArcToolbox (ArcMap 9.1)

Source_Used_Citation_Abbreviation:

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 1005

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

```

Longitude_of_Central_Meridian: 3.000000
Latitude_of_Projection_Origin: 0.000000
False_Easting: 500000.000000
False_Northing: 0.000000
Planar_Coordinate_Information:
  Planar_Coordinate_Encoding_Method: coordinate pair
  Coordinate_Representation:
    Abscissa_Resolution: 0.000000
    Ordinate_Resolution: 0.000000
  Planar_Distance_Units: meters
Geodetic_Model:
  Horizontal_Datum_Name: D_WGS_1984
  Ellipsoid_Name: WGS_1984
  Semi-major_Axis: 6378137.000000
  Denominator_of_Flattening_Ratio: 298.257224
Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label: lu50
      Entity_Type_Definition: Land use in 1950
    Attribute:
      Attribute_Label: FID
      Attribute_Definition: Internal feature number.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Sequential unique whole numbers that
are automatically generated.
    Attribute:
      Attribute_Label: Shape
      Attribute_Definition: Feature geometry.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Coordinates defining the features.
    Attribute:
      Attribute_Label: ID_
      Attribute_Definition: Identification code
      Attribute_Definition_Source: Atlas GIS
    Attribute:
      Attribute_Label: LANDUSE
      Attribute_Definition: Land use
      Attribute_Definition_Source: Photointerpretation by P. Hiernaux
      Attribute_Domain_Values:
        Enumerated_Domain:
          Enumerated_Domain_Value: b
          Enumerated_Domain_Value_Definition: No trace of prior
cultivation
          Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
        Enumerated_Domain:
          Enumerated_Domain_Value: c
          Enumerated_Domain_Value_Definition: cropped
          Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
        Enumerated_Domain:
          Enumerated_Domain_Value: f
          Enumerated_Domain_Value_Definition: Uncultivated (Friche)
          Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
        Enumerated_Domain:
          Enumerated_Domain_Value: j

```

Enumerated_Domain_Value_Definition: Fallow (jachere)
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: s
 Enumerated_Domain_Value_Definition: Laterite plateau
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: w
 Enumerated_Domain_Value_Definition: Village
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ILRI - ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Resource_Description: Land use in the Fakara in the year 1950
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 1.251
 Metadata_Reference_Information:
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niger
 State_or_Province:
 Postal_Code:
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Voice_Telephone: +22720722529
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 177: Land use in the Fakara in the year 1975

Identification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1975

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer, given land use in 1975 is derived from 1:300000? historical aerial photographs to contribute to the spatial budgeting and modelling work accomplished by ILRI from 1994. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1975

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.567137

East_Bounding_Coordinate: 2.883726

North_Bounding_Coordinate: 13.589355

South_Bounding_Coordinate: 13.332611

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1975

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Pierre Hiernaux and Matthieu Turner

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

1) Photos interpretations was performed stereoscopically by Pierre Hiernaux. To facilitate the completion of the work, alternating photos were used in the interpretation, rather than using the central portion of each photo, usually done to reduce parallax-related distortion.

2) Ground-control Points

In order to geometrically correct individual map files prior to merging, GPS readings were taken in at least ten locations within the area covered by each aerial photo (exception being photo 273 where ground-control points were not taken). Points were at locations identifiable on the aerial photo interpretations as well as on the ground. These points most commonly were at intersections of line features of the aerial interpretations including paths, livestock paths, field boundary hedges, wadis but also at well-defined point features such as isolated trees, and wells. Every attempt was made for points to be as evenly distributed across the photo area as possible. At least 150 GPS readings were taken at each point using a Trimble Pathfinder Basic Plus GPS Receiver. GPS data for ground-control points were collected on the following dates: 21/3/94, 24/3/94, 05/4/94, 29/7/94, 5/8/94, 16/8/94, 17/8/94, 5/9/94, 13/9/94, 27/9/94, and 28/9/94.

3) Each acetate overleaf was digitized using ATLAS-GIS for DOS software with the assistance of Moussa Mahamane and Aboubacar Maman. The land-use interpretations were digitized into separate files with the feature types of each assigned to separate layers. The land-use files were merged together using the above-mentioned corner points as common reference points.

4) In 2000 Atlas GIS layer was converted to ESRI shape file in ArcView 3 by Bruno Gerard

5) In 2006, proper projection was added to the shape file using 'define projection' in the ArcToolbox (ArcMap 9.1)

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 963

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

```

        Latitude_of_Projection_Origin: 0.000000
        False_Easting: 500000.000000
        False_Northing: 0.000000
    Planar_Coordinate_Information:
        Planar_Coordinate_Encoding_Method: coordinate pair
        Coordinate_Representation:
            Abscissa_Resolution: 0.000000
            Ordinate_Resolution: 0.000000
        Planar_Distance_Units: meters
    Geodetic_Model:
        Horizontal_Datum_Name: D_WGS_1984
        Ellipsoid_Name: WGS_1984
        Semi-major_Axis: 6378137.000000
        Denominator_of_Flattening_Ratio: 298.257224
Entity_and_Attribute_Information:
    Detailed_Description:
        Entity_Type:
            Entity_Type_Label: lu75
            Entity_Type_Definition: Land use in 1950
        Attribute:
            Attribute_Label: FID
            Attribute_Definition: Internal feature number.
            Attribute_Definition_Source: ESRI
            Attribute_Domain_Values:
                Unrepresentable_Domain: Sequential unique whole numbers that
are automatically generated.
        Attribute:
            Attribute_Label: Shape
            Attribute_Definition: Feature geometry.
            Attribute_Definition_Source: ESRI
            Attribute_Domain_Values:
                Unrepresentable_Domain: Coordinates defining the features.
        Attribute:
            Attribute_Label: ID_
            Attribute_Definition: Identification code
            Attribute_Definition_Source: Atlas GIS
        Attribute:
            Attribute_Label: LANDUSE
            Attribute_Definition: Land use
            Attribute_Definition_Source: Photointerpretation by P. Hiernaux
            Attribute_Domain_Values:
                Enumerated_Domain:
                    Enumerated_Domain_Value: b
                    Enumerated_Domain_Value_Definition: No trace of prior
cultivation
                    Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
                Enumerated_Domain:
                    Enumerated_Domain_Value: c
                    Enumerated_Domain_Value_Definition: cropped
                    Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
                Enumerated_Domain:
                    Enumerated_Domain_Value: f
                    Enumerated_Domain_Value_Definition: Uncultivated (Friche)
                    Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
                Enumerated_Domain:
                    Enumerated_Domain_Value: j
                    Enumerated_Domain_Value_Definition: Fallow (jachere)

```

Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: s
 Enumerated_Domain_Value_Definition: Laterite plateau
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: w
 Enumerated_Domain_Value_Definition: Village
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT - ILRI
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Resource_Description: Land use in the Fakara in the year 1975
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 1.251
 Metadata_Reference_Information:
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00-16h00 pm z+1
 Contact_Instructions: Prefer mailing contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 178: Land use in the Fakara in the year 1992

Identification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1992

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer, given land use in 1992 is derived from 1:200000? aerial photographs to contribute to the spatial budgeting and modelling work accomplished by ILRI from 1994. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1992

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.555843

East_Bounding_Coordinate: 2.882185

North_Bounding_Coordinate: 13.596163

South_Bounding_Coordinate: 13.334754

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1992

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Pierre Hiernaux and Matthieu Turner

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

1) Photos interpretations was performed stereoscopically by Pierre Hiernaux. To facilitate the completion of the work, alternating photos were used in the interpretation, rather than using the central portion of each photo, usually done to reduce parallax-related distortion.

2) Ground-control Points

In order to geometrically correct individual map files prior to merging, GPS readings were taken in at least ten locations within the area covered by each aerial photo (exception being photo 273 where ground-control points were not taken). Points were at locations identifiable on the aerial photo interpretations as well as on the ground. These points most commonly were at intersections of line features of the aerial interpretations including paths, livestock paths, field boundary hedges, wadis but also at well-defined point features such as isolated trees, and wells. Every attempt was made for points to be as evenly distributed across the photo area as possible. At least 150 GPS readings were taken at each point using a Trimble Pathfinder Basic Plus GPS Receiver. GPS data for ground-control points were collected on the following dates: 21/3/94, 24/3/94, 05/4/94, 29/7/94, 5/8/94, 16/8/94, 17/8/94, 5/9/94, 13/9/94, 27/9/94, and 28/9/94.

3) Each acetate overleaf was digitized using ATLAS-GIS for DOS software with the assistance of Moussa Mahamane and Aboubacar Maman. The land-use interpretations were digitized into separate files with the feature types of each assigned to separate layers. The land-use files were merged together using the above-mentioned corner points as common reference points.

4) In 2000 Atlas GIS layer was converted to ESRI shape file in ArcView 3 by Bruno Gerard

5) In 2006, proper projection was added to the shape file using 'define projection' in the ArcToolbox (ArcMap 9.1)

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 2359

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: lu92
 Entity_Type_Definition: Land use in 1950
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
 Attribute_Label: LU92
 Attribute_Definition: Land use in 1992
 Attribute_Definition_Source: Pierre Hiernaux
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: C
 Enumerated_Domain_Value_Definition: Cropped field
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: CV
 Enumerated_Domain_Value_Definition: Manure field
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: F
 Enumerated_Domain_Value_Definition: Friche (uncropped land)
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: J
 Enumerated_Domain_Value_Definition: Fallow field
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: S
 Enumerated_Domain_Value_Definition: Plateau
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux

Enumerated_Domain:
 Enumerated_Domain_Value: VL
 Enumerated_Domain_Value_Definition: Village
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT - ILRI

Contact_Address:

Address_Type: mailing and physical address

Address: BP: 12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Resource_Description: Land use in the Fakara in the year 1992

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 1.251

Metadata_Reference_Information:

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Person: AMADOU M.Laouali

Contact_Address:

Address_Type: mailing and physical address

City: Niamey

Country: Niger

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org

Contact_Instructions: Prefer mailing contact

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial

Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

Data Set Number 179: Land use in the Fakara in the year 1994

dentification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1994

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer, given land use in 1994 is derived from 1/20000? aerial photographs to contribute to the spatial budgeting and modelling work accomplished by ILRI from 1994. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1994

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.573233

East_Bounding_Coordinate: 2.882184

North_Bounding_Coordinate: 13.596154

South_Bounding_Coordinate: 13.335020

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1994

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Pierre Hiernaux and Matthieu Turner

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

1) Photos interpretations was performed stereoscopically by Pierre Hiernaux. To facilitate the completion of the work, alternating photos were used in the interpretation, rather than using the central portion of each photo, usually done to reduce parallax-related distortion.

2) Ground-control Points

In order to geometrically correct individual map files prior to merging, GPS readings were taken in at least ten locations within the area covered by each aerial photo (exception being photo 273 where ground-control points were not taken). Points were at locations identifiable on the aerial photo interpretations as well as on the ground. These points most commonly were at intersections of line features of the aerial interpretations including paths, livestock paths, field boundary hedges, wadis but also at well-defined point features such as isolated trees, and wells. Every attempt was made for points to be as evenly distributed across the photo area as possible. At least 150 GPS readings were taken at each point using a Trimble Pathfinder Basic Plus GPS Receiver. GPS data for ground-control points were collected on the following dates: 21/3/94, 24/3/94, 05/4/94, 29/7/94, 5/8/94, 16/8/94, 17/8/94, 5/9/94, 13/9/94, 27/9/94, and 28/9/94.

3) Each acetate overleaf was digitized using ATLAS-GIS for DOS software with the assistance of Moussa Mahamane and Aboubacar Maman. The land-use interpretations were digitized into separate files with the feature types of each assigned to separate layers. The land-use files were merged together using the above-mentioned corner points as common reference points.

4) In 2000 Atlas GIS layer was converted to ESRI shape file in ArcView 3 by Bruno Gerard

5) In 2006, proper projection was added to the shape file using 'define projection' in the ArcToolbox (ArcMap 9.1)

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 3325

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: lu94
 Entity_Type_Definition: Land use in 1994
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
 Attribute_Label: LANDUSE
 Attribute_Definition: Land use in 1994
 Attribute_Definition_Source: Photointerpretation by P. Hiernaux
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: c
 Enumerated_Domain_Value_Definition: cropped
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: f
 Enumerated_Domain_Value_Definition: Uncultivated (Friche)
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: j
 Enumerated_Domain_Value_Definition: Fallow (jachere)
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: s
 Enumerated_Domain_Value_Definition: Laterite plateau
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 Enumerated_Domain:
 Enumerated_Domain_Value: w
 Enumerated_Domain_Value_Definition: Village
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux

Attribute:
 Attribute_Label: Area
 Attribute_Definition: Area
 Attribute_Definition_Source: Photointerpretation by P. Hiernaux
 Attribute:
 Attribute_Label: Perimeter
 Attribute_Definition: Perimeter
 Attribute_Definition_Source: Photointerpretation by P. Hiernaux
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT - ILRI
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Resource_Description: Land use in the Fakara in the year 1994
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 1.251
 Metadata_Reference_Information:
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 180: Land use in the Fakara in the year 1995

Identification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1995

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer, given land use in 1995 is derived from 1:20000 aerial photographs to contribute to the spatial budgeting and modelling work accomplished by ILRI from 1994. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1995

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.568252

East_Bounding_Coordinate: 2.882270

North_Bounding_Coordinate: 13.593594

South_Bounding_Coordinate: 13.334661

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1995

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Pierre Hiernaux and Matthieu Turner

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

1) Photos interpretations was performed stereoscopically by Pierre Hiernaux. To facilitate the completion of the work, alternating photos were used in the interpretation, rather than using the central portion of each photo, usually done to reduce parallax-related distortion.

2) Ground-control Points

In order to geometrically correct individual map files prior to merging, GPS readings were taken in at least ten locations within the area covered by each aerial photo (exception being photo 273 where ground-control points were not taken). Points were at locations identifiable on the aerial photo interpretations as well as on the ground. These points most commonly were at intersections of line features of the aerial interpretations including paths, livestock paths, field boundary hedges, wadis but also at well-defined point features such as isolated trees, and wells. Every attempt was made for points to be as evenly distributed across the photo area as possible. At least 150 GPS readings were taken at each point using a Trimble Pathfinder Basic Plus GPS Receiver. GPS data for ground-control points were collected on the following dates: 21/3/94, 24/3/94, 05/4/94, 29/7/94, 5/8/94, 16/8/94, 17/8/94, 5/9/94, 13/9/94, 27/9/94, and 28/9/94.

3) Each acetate overleaf was digitized using ATLAS-GIS for DOS software with the assistance of Moussa Mahamane and Aboubacar Maman. The land-use interpretations were digitized into separate files with the feature types of each assigned to separate layers. The land-use files were merged together using the above-mentioned corner points as common reference points.

4) In 2000 Atlas GIS layer was converted to ESRI shape file in ArcView 3 by Bruno Gerard

5) In 2006, proper projection was added to the shape file using 'define projection' in the ArcToolbox (ArcMap 9.1)

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 4217

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000
False_Easting: 500000.000000
False_Northing: 0.000000
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: coordinate pair
Coordinate_Representation:
Abscissa_Resolution: 0.000000
Ordinate_Resolution: 0.000000
Planar_Distance_Units: meters
Geodetic_Model:
Horizontal_Datum_Name: D_WGS_1984
Ellipsoid_Name: WGS_1984
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257224
Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: lu95
Entity_Type_Definition: Land use in 1950
Attribute:
Attribute_Label: FID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that
are automatically generated.
Attribute:
Attribute_Label: Shape
Attribute_Definition: Feature geometry.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Coordinates defining the features.
Attribute:
Attribute_Label: LANDUSE
Attribute_Definition: Land use
Attribute_Definition_Source: Photointerpretation by P. Hiernaux
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: c
Enumerated_Domain_Value_Definition: cropped
Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
Enumerated_Domain:
Enumerated_Domain_Value: f
Enumerated_Domain_Value_Definition: Uncultivated (Friche)
Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
Enumerated_Domain:
Enumerated_Domain_Value: j
Enumerated_Domain_Value_Definition: Fallow (jachere)
Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
Enumerated_Domain:
Enumerated_Domain_Value: s
Enumerated_Domain_Value_Definition: Laterite plateau
Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
Enumerated_Domain:
Enumerated_Domain_Value: vl
Enumerated_Domain_Value_Definition: Village
Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT - ILRI
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
Resource_Description: Land use in Fakara in the year 1995
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Transfer_Size: 1.251
Metadata_Reference_Information:
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Contact_Instructions: Prefer mailing contact
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 181: Land use in the Fakara in the year 1996

Identification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1996

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer, given land use in 1996 is derived from digital photo mosaïque (ILRI photographic mission) to contribute to the spatial budgeting and modelling work accomplished by ILRI from 1994. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1996

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.563927

East_Bounding_Coordinate: 2.887283

North_Bounding_Coordinate: 13.592817

South_Bounding_Coordinate: 13.337918

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1996

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Pierre Hiernaux, Bruno Gerard and Matthieu Turner

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

1) Photos interpretations was performed stereoscopically by Pierre Hiernaux. To facilitate the completion of the work, alternating photos were used in the interpretation, rather than using the central portion of each photo, usually done to reduce parallax-related distortion.

2) Ground-control Points

In order to geometrically correct individual map files prior to merging, GPS readings were taken in at least ten locations within the area covered by each aerial photo (exception being photo 273 where ground-control points were not taken). Points were at locations identifiable on the aerial photo interpretations as well as on the ground. These points most commonly were at intersections of line features of the aerial interpretations including paths, livestock paths, field boundary hedges, wadis but also at well-defined point features such as isolated trees, and wells. Every attempt was made for points to be as evenly distributed across the photo area as possible. At least 150 GPS readings were taken at each point using a Trimble Pathfinder Basic Plus GPS Receiver. GPS data for ground-control points were collected on the following dates: 21/3/94, 24/3/94, 05/4/94, 29/7/94, 5/8/94, 16/8/94, 17/8/94, 5/9/94, 13/9/94, 27/9/94, and 28/9/94.

3) Each acetate overleaf was digitized using ATLAS-GIS for DOS software with the assistance of Moussa Mahamane and Aboubacar Maman. The land-use interpretations were digitized into separate files with the feature types of each assigned to separate layers. The land-use files were merged together using the above-mentioned corner points as common reference points.

4) In 2000 Atlas GIS layer was converted to ESRI shape file in ArcView 3 by Bruno Gerard

5) In 2006, proper projection was added to the shape file using 'define projection' in the ArcToolbox (ArcMap 9.1)

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 9812

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: LU96
 Entity_Type_Definition: Land use in 1950
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
 Attribute_Label: OS96
 Attribute_Definition: Land use in 1996
 Attribute_Definition_Source: Pierre Hiernaux and Bruno Gerard
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: c
 Enumerated_Domain_Value_Definition: cropped
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 and Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: cv
 Enumerated_Domain_Value_Definition: Manure field
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 and Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: f
 Enumerated_Domain_Value_Definition: Friche (uncropped land)
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 and Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: j
 Enumerated_Domain_Value_Definition: Fallow field
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 and Bruno Gerard

Enumerated_Domain:
 Enumerated_Domain_Value: s
 Enumerated_Domain_Value_Definition: plateau
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 and Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: vl
 Enumerated_Domain_Value_Definition: village
 Enumerated_Domain_Value_Definition_Source: Pierre Hiernaux
 and Bruno Gerard
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT - ILRI
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Hours_of_Service: 8h00-16h00 pm z+1
 Contact_Instructions: Prefer mailing contact
 Resource_Description: Land use in Fakara in the year 1996
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 1.251
 Metadata_Reference_Information:
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Hours_of_Service: 8h00-16h00 pm z+1
 Contact_Instructions: Prefer mailing contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 185: Land use in the Fakara in the year 1965

Identification_Information:

Citation:

Citation_Information:

Originator: ILRI

Publication_Date: Unpublished Material

Title: Land use in the Fakara in the year 1965

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract: This GIS layer contains polygons for cropped area in 1965 and is derived from unclassified corona images georeferenced with a Spot 5 orthorectified image. Since 2000, land use has been updated and used by ICRISAT under a range of special research project (DGCD Decision Support, DMP, Agrhymet Climate Change)

Purpose: Production of continuous coverage from discontinuous aerial coverage to produce clear readable maps of different spatial scales necessary for unit-referenced data collection to act as a base map for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1965

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.508749

East_Bounding_Coordinate: 2.915250

North_Bounding_Coordinate: 13.716895

South_Bounding_Coordinate: 13.335738

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Place_Keyword: Sahel

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1965

Access_Constraints: Request to be made to ILRI

Use_Constraints: Cite when used

Data_Set_Credit: Bruno Gerard and Djaby Bakary

Security_Information:

Security_Classification: Restricted

Security_Handling_Description: Can only be used with specific authorization of ILRI

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Geospatial_Data_Presentation_Form: document

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

- 1) Corona images in digital format (Tif) were received from Agrhymet with approximate georeferencing
- 2) Georeferencing was improved by using GCP of an orthorectified spot 5 pansharpened image (RMS < 5m) in ArcGIS
- 3) Segmentation and object-based classification in e-cognition to identify cropped area
- 4) Export of object from e-cognition in shp file format

Process_Date: 2005

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Bruno Gerard

Contact_Address:

Address: BP: 12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: b.gerard@cgiar.org

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 15736

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000

False_Easting: 500000.000000

False_Northing: 0.000000

Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: coordinate pair

Coordinate_Representation:

Abscissa_Resolution: 0.000000

Ordinate_Resolution: 0.000000

Planar_Distance_Units: meters

Geodetic_Model:

Horizontal_Datum_Name: D_WGS_1984

Ellipsoid_Name: WGS_1984

Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: lu1965
 Entity_Type_Definition: Land use in 1950
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
 Attribute_Label: ID
 Attribute_Definition: Identification code
 Attribute_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: Class
 Attribute_Definition: Classification
 Attribute_Definition_Source: Bruno Gerard
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: cropped
 Enumerated_Domain_Value_Definition: Field cropped in 1965
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: Color
 Attribute_Definition: Class Color
 Attribute_Definition_Source: Bruno Gerard
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: ILRI - ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Resource_Description: Land use in the Fakara in the year 1965
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 1.251
 Metadata_Reference_Information:

Metadata_Date: 20070130
Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 188: Satellite image map of the Fakara at 1/30000 scale (map A)

Identification_Information: Space map of the Fakara (Banizoumbou) area at 1/30000 (Niger 2004)

Citation:

Citation_Information:

Originator: Bruno Gerard

Publication_Date: 20060901

Title: Space map of the Fakara (Banizoumbou) area at 1/30000 (Niger 2004)

Geospatial_Data_Presentation_Form: vector digital data

Description:

Abstract:

Maps of the Fakara region at 1/30000 scale have been elaborated from the pansharpened orthorectified Spot 5 imagery to serve as detailed maps for field work and field activities of various partners of the ICRISAT Decision Support Project. A total of 5 maps covering the Fakara have been produced. They are created as JPEG files and supposed to be printed in a digital photolab in 50x75 cm format. Similar maps have been produced for the project two other sites: South Maradi; North East Zinder.

For the impression, the Pixaco site was tested and makes it possible to obtain the space maps in high quality on scale 1/30.000 at a reasonable price (+ / - 9 euro by map). According to your country use the following addresses:

For France: www.pixaco.fr

For Belgium: www.pixaco.be (site only in Dutch!)

For Germany: www.pixaco.de

For Switzerland: www.pixaco.ch

Purpose: Produce up-to-date spatial information of the Fakara region for the various ICRISAT partners working in the area.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:31

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.553543

East_Bounding_Coordinate: 2.711714

North_Bounding_Coordinate: 13.594354

South_Bounding_Coordinate: 13.468407

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Map

Theme_Keyword: Spot 5

Theme_Keyword: Imagery

Theme_Keyword: Remote sensing

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara
 Place_Keyword: Niger
 Place_Keyword: West Africa
 Access_Constraints: Free
 Use_Constraints: Cite when used
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: Catholic University of Louvain
 Contact_Person: BRUNO GERARD
 Contact_Position: Visitor Scientist
 Contact_Address:
 Address_Type: mailing and physical
 Address: Faculty of Biological, Agronomic and Environmental
 Engineering
 Catholic university of Louvain
 Croix du Sud, 2 bte 16
 B-1348 Louvain-la-Neuve (Belgium)
 Fax 32 (0) 10 47 88 98

 City: Louvain-la-Neuve
 Country: Belgique
 Contact_Voice_Telephone: 32 (0) 10 47 92 57
 Contact_Electronic_Mail_Address: b.Gerard@cgiar.org;
 gerard@enge.ucl.ac.be
 Browse_Graphic:
 Browse_Graphic_File_Name: Fakara_A_quicklook.jpg
 Browse_Graphic_File_Type: JPEG
 Data_Set_Credit: Bruno Gerard, Jean-Francois Peckel, and Christophe
 Coq
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Maps of the Fakara region at 1/30000 scale
 have been elaborated from the pansharpened orthorectified Spot 5
 imagery to serve as detailed maps for field work and field activities.
 Maps were created as JPEG files and printed.
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: G-polygon
 Point_and_Vector_Object_Count: 1
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection-Origin: 0.000000
 False_Easting: 500000.000000

```

        False_Northing: 0.000000
Planar_Coordinate_Information:
    Planar_Coordinate_Encoding_Method: coordinate pair
    Coordinate_Representation:
        Abscissa_Resolution: 0.000000
        Ordinate_Resolution: 0.000000
    Planar_Distance_Units: meters
Geodetic_Model:
    Horizontal_Datum_Name: D_WGS_1984
    Ellipsoid_Name: WGS_1984
    Semi-major_Axis: 6378137.000000
    Denominator_of_Flattening_Ratio: 298.257224
Entity_and_Attribute_Information:
    Detailed_Description:
        Entity_Type:
            Entity_Type_Label: Fakara_A
        Attribute:
            Attribute_Label: FID
            Attribute_Definition: Internal feature number.
            Attribute_Definition_Source: ESRI
            Attribute_Domain_Values:
                Unrepresentable_Domain: Sequential unique whole numbers that
are automatically generated.
        Attribute:
            Attribute_Label: Shape
            Attribute_Definition: Feature geometry.
            Attribute_Definition_Source: ESRI
            Attribute_Domain_Values:
                Unrepresentable_Domain: Coordinates defining the features.
    Attribute:
        Attribute_Label: Id
        Attribute_Definition: Identification classes
        Attribute_Definition_Source: Bruno Gerard
        Attribute_Domain_Values:
            Enumerated_Domain:
                Enumerated_Domain_Value: classe 1
                Enumerated_Domain_Value_Definition: Village
                Enumerated_Domain_Value_Definition_Source: Bruno Gerard
            Enumerated_Domain:
                Enumerated_Domain_Value: classe 2
                Enumerated_Domain_Value_Definition: Crops
                Enumerated_Domain_Value_Definition_Source: Bruno Gerard
            Enumerated_Domain:
                Enumerated_Domain_Value: classe 3
                Enumerated_Domain_Value_Definition: Fallow
                Enumerated_Domain_Value_Definition_Source: Bruno Gerard
            Enumerated_Domain:
                Enumerated_Domain_Value: classe 4
                Enumerated_Domain_Value_Definition: Animal track
                Enumerated_Domain_Value_Definition_Source: Bruno Gerard
            Enumerated_Domain:
                Enumerated_Domain_Value: classe 5
                Enumerated_Domain_Value_Definition: shrub lands 'Brousse
tigree'
                Enumerated_Domain_Value_Definition_Source: Bruno Gerard
            Enumerated_Domain:
                Enumerated_Domain_Value: classe 6

```

Enumerated_Domain_Value_Definition: Water
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Resource_Description: Saptio Carte de la Region du Fakara au 1/30000
 Planche A
 Distribution_Liability: For all needs, email to Bruno Gerard at
 b.gerard@cgiar.org
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.000
 Metadata_Reference_Information:
 Metadata_Date: 20070202
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Contact_Instructions: Prefer mailing contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 200: Panchromatic Spot 5 Imagery of the Fakara taken on 28 September 2004

Identification_Information:

Citation:

Citation_Information:

Originator: CNES

Publication_Date: 20041029

Publication_Time: 10:28:51

Title: Panchromatic Spot 5 Imagery of the Fakara taken on 28

September 2004

Geospatial_Data_Presentation_Form: remote-sensing image

Online_Linkage: \\ENGE-FROUFROU\LACIE

(F)\metadata_fakara\Spot\Spot2004\panchro\IMAGERY.TIF

Description:

Abstract: Panchromatic Spot 5 image acquired over the Fakara on 28 September 2004 (SCENE 5 062-323 04/09/28 10:28:53 1A)

Purpose: Land use land cover mapping

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:28:55

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 434729.067153

East_Bounding_Coordinate: 506268.997699

North_Bounding_Coordinate: 1530724.465343

South_Bounding_Coordinate: 1458815.412988

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: SPOT 5

Theme_Keyword: SPOT

Theme_Keyword: CNES

Theme_Keyword: SPOT IMAGE

Theme_Keyword: PANCHROMATIC

Theme_Keyword: IR

Theme_Keyword: INFRARED

Theme_Keyword: HIGH RESOLUTION

Theme_Keyword: SATELLITE

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: FAKARA

Place_Keyword: NIGER

Place_Keyword: SAHEL

Place_Keyword: WEST AFRICA

Place_Keyword: AFRICA

Temporal:

Temporal_Keyword_Thesaurus: None

Temporal_Keyword: 2004

Access_Constraints: Copyrighted CNES Spot Image

Use_Constraints: Some derived products can be used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Catholic University of Louvain

Contact_Person: BRUNO GERARD

Contact_Position: Visitor Scientist

Contact_Address:

Address_Type: mailing and physical

Address: Faculty of Biological, Agronomic and Environmental
Engineering

Catholic university of Louvain

Croix du Sud, 2 bte 16

B-1348 Louvain-la-Neuve (Belgium)

Fax 32 (0) 10 47 88 98

City: Louvain-la-Neuve

Country: Belgique

Contact_Voice_Telephone: 32 (0) 10 47 92 57

Contact_Electronic_Mail_Address: b.Gerard@cgiar.org

Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be

Data_Set_Credit: Spot Image

Security_Information:

Security_Classification: Unclassified

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Data_Quality_Information:

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report: Level 1B

Lineage:

Process_Step:

Process_Description:

- 1) Orthorectification of pan and multispectral scenes using
SRTM MNT and GCP surveyed with differential GPS
- 2) Pansharpening data fusion to produce multispectral scene wit
5 m ground resolution
- 3) Multiscale segmentation of the image
- 4) Object based classification using expert knowledge for
ground cover condition and using LCCS classification scheme

Cloud_Cover: 0

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Raster

Raster_Object_Information:

Raster_Object_Type: Pixel

Row_Count: 12041

Column_Count: 11940

Vertical_Count: 1

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 0.000000

Longitude_Resolution: 0.000000

Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

Horizontal_Datum_Name: D_WGS_1984

Ellipsoid_Name: WGS_1984

Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Instructions: http://www.icrisat.org/
 Resource_Description: Panchromatic Spot 5 Imagery of the Fakara taken
 on 28 September 2004
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.000
 Metadata_Reference_Information:
 Metadata_Date: 20070206
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 City: Niamey
 State_or_Province:
 Postal_Code:
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Contact_Instructions: http://www.icrisat.org/
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: http://www.esri.com/metadata/esriprof80.html
 Profile_Name: ESRI Metadata Profile

Data Set Number 199: Multispectral Spot 5 Imagery of the Fakara taken on 28 September 2004 Level 1B

Identification_Information:

Citation:

Citation_Information:

Originator: CNES

Publication_Date: 20041029

Publication_Time: 10:28:51

Title: Multispectral Spot 5 Imagery of the Fakara taken on 28 September 2004 Level 1B

Geospatial_Data_Presentation_Form: remote-sensing image

Online_Linkage: \\ENGE-FROUFROU\LACIE

(F)\metadata_fakara\Spot\Spot2004\multi\IMAGERY.TIF

Description:

Abstract: Multispectral Spot 5 image acquired over the Fakara on 28 September 2004 (SCENE 5 062-323/0 04/09/28 10:28:55 1 J)

Purpose: Land use land cover mapping

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:28:55

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.396548

East_Bounding_Coordinate: 3.057893

North_Bounding_Coordinate: 13.845693

South_Bounding_Coordinate: 13.195663

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: SPOT 5

Theme_Keyword: SPOT

Theme_Keyword: CNES

Theme_Keyword: SPOT IMAGE

Theme_Keyword: MULTISPECTRAL

Theme_Keyword: IR

Theme_Keyword: INFRARED

Theme_Keyword: HIGH RESOLUTION

Theme_Keyword: SATELLITE

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: FAKARA

Place_Keyword: NIGER

Place_Keyword: SAHEL

Place_Keyword: WEST AFRICA

Place_Keyword: AFRICA

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2004

Access_Constraints: Copyrighted CNES Spot Image

Use_Constraints: Some derived products can be used
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: Catholic University of Louvain
 Contact_Person: BRUNO GERARD
 Contact_Position: Visitor Scientist
 Contact_Address:
 Address_Type: mailing and physical
 Address: Faculty of Biological, Agronomic and Environmental
 Engineering
 Catholic university of Louvain
 Croix du Sud, 2 bte 16
 B-1348 Louvain-la-Neuve (Belgium)
 Fax 32 (0) 10 47 88 98
 City: Louvain-la-Neuve
 Country: Belgique
 Contact_Voice_Telephone: 32 (0) 10 47 92 57
 Contact_Electronic_Mail_Address: b.Gerard@cgiar.org
 Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be
 Data_Set_Credit: Spot Image
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Positional_Accuracy:
 Horizontal_Positional_Accuracy:
 Horizontal_Positional_Accuracy_Report: Level 1B
 Lineage:
 Process_Step:
 Process_Description:
 1) Orthorectification of pan and multispectral scenes using
 SRTM MNT and GCP surveyed with differential GPS
 2) Pansharpening data fusion to produce multispectral scene wit
 5 m ground resolution
 3) Multiscale segmentation of the image
 4) Object based classification using expert knowledge for
 ground cover condition and using LCCS classification scheme
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Cloud_Cover: 0
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 6022
 Column_Count: 5970
 Vertical_Count: 1
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Geographic:
 Latitude_Resolution: 0.000000

Longitude_Resolution: 0.000000
 Geographic_Coordinate_Units: Decimal degrees
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Instructions: http://www.icrisat.org/
 Resource_Description: Multispectral Spot 5 Imagery of the Fakara
 taken on 28 September 2004 Level 1B
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.000
 Metadata_Reference_Information:
 Metadata_Date: 20070206
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 City: Niamey
 State_or_Province: address.
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Contact_Instructions: http://www.icrisat.org/
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: http://www.esri.com/metadata/esriprof80.html
 Profile_Name: ESRI Metadata Profile

Data Set Number 49: Satellite image of ASTER on 19/9/04

Identification_Information:

Citation:

Citation_Information:

Originator: Hitoshi Shinjo

Publication_Date: 20040919

Title: Satellite image of ASTER on 19/9/04

Edition: 1

Geospatial_Data_Presentation_Form: remote-sensing image

Description:

Abstract: ASTER image was acquired from ERSDAC (Earth Remote Sensing Data Analysis Center), Japan. It covers the region of Fakara with some cloud coverage. It has three radiometers; VNIR, SWIR and TIR. VNIR has the three bands (G,R, NIR) with 15 m resolution. SWIR has the 6 bands in the short wave infrared (1.6 -2.43 um) with 30 m resolution. TIR has 5 bands in thermal infrared (8.125-11.65 um) with 90 m resolution.

Purpose: To evaluate the status of soil and vegetation.

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: 20040919

Time_of_Day: 6:59:06

Status:

Progress: Complete

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.352623

East_Bounding_Coordinate: 2.951402

North_Bounding_Coordinate: 13.686003

South_Bounding_Coordinate: 13.219931

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: ASTER

Theme_Keyword: Satellite

Theme_Keyword: NDVI

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Niger

Place_Keyword: Fakara

Place_Keyword: Kodey

Place_Keyword: Tchigo Tegui

Place_Keyword: Katanga

Place_Keyword: Banizoumbou
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2004
 Access_Constraints: Within project of JIRCAS/ICRISAT
 Use_Constraints: Not allowed
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: KYOTO UNIV
 Contact_Person: HITOSHI SHINJO
 Contact_Position: Assistant professor
 Contact_Address:
 Address_Type: mailing and physical
 City: KYOTO
 Country: JAPAN
 Contact_Voice_Telephone: +81757536101
 Contact_Electronic_Mail_Address: shinhit@kais.kyoto-u.ac.jp
 Hours_of_Service: 9:00-17:00 (UTC+9)
 Security_Information:
 Security_Classification: Restricted
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Attributes were obtained as byte values,
 0-255 for each band.
 Positional_Accuracy:
 Horizontal_Positional_Accuracy:
 Horizontal_Positional_Accuracy_Report: less than 20 m
 Vertical_Positional_Accuracy:
 Vertical_Positional_Accuracy_Report: NA
 Lineage:
 Source_Information:
 Source_Citation:
 Citation_Information:
 Originator: Pierre Hiernaux (ILRI)
 Originator: Augustine Ayatunde (ILRI)
 Publication_Date: Unknown
 Process_Step:
 Process_Description: The results of interview were input to the
 digital format of Excel.
 Cloud_Cover: 0
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: ASTER image dated 19 September 2004
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:

Attribute_Label: Date
 Attribute_Definition: the date of interview
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: Terre
 Attribute_Definition: name of village
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: code
 Attribute_Definition: Identification code
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: Location of houses
 Attribute_Definition: UTM X and UTM Y
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: Grazing area
 Attribute_Definition: Grazing area
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: Corralling
 Attribute_Definition: Corralling
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: transhumance
 Attribute_Definition: Transhumance
 Attribute_Definition_Source: Hitoshi Shinjo
 Attribute:
 Attribute_Label: type of land tenure
 Attribute_Definition: Types of land tenure
 Attribute_Definition_Source: Hitoshi Shinjo

Overview_Description:

Entity_and_Attribute_Overview: The data set summarize the transhumance, corralling, number of livestock and land tenure of Fulani households settling in Fakara region in 2004, 2005 and 2006. three villages of Fakara was concerned: Banizoumbou, Tigo Tegui and Kodey. the attributes are structured as follow:

- Date: the date of interview
- Terre: name of village
- code
- Location of houses: UTM X and UTM Y
- Grazing area
- Corralling
- transhumance
- types of land tenure

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences (JIRCAS)

City: Ohwashi, Tsukuba, Ibaraki

Postal_Code: 305 8686
Country: JAPAN
Contact_Voice_Telephone: +81 29 838 6330
Contact_Facsimile_Telephone: +81 29 838 6316
Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Resource_Description: ASTER image dated 20040919
Metadata_Reference_Information:
Metadata_Date: 20061017
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Position: Consultant
Contact_Address:
Address_Type: mailing and physical
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00am - 16h00pm z+1
Contact_Instructions: prefer to be contact by email
Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Not define for instance
Metadata_Security_Information:
Metadata_Security_Classification_System: None
Metadata_Security_Classification: Unclassified
Metadata_Security_Handling_Description: None
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 209: True color Ikonos image of the Fakara

Identification_Information:

Citation:

Citation_Information:

Originator: Space Imaging (2000)

Publication_Date: 20000101

Title: True color Ikonos image of the Fakara

Geospatial_Data_Presentation_Form: remote-sensing image

Other_Citation_Details: Download via Restricted Access

Online_Linkage: \\ENGE-FROUFROU\LACIE

(F)\metadata_fakara\Ikonos\po_49488_tc.tif

Description:

Abstract: High Resolution Ikonos true color image of an are of 11x11 km covering Tigo-Tegui, Bagoua in the Fakara Niger taken on 11 September 2000

Purpose: Land use mapping

Supplemental_Information:

Metadata from Space Imaging text file:

Product Order Number: 49488

Customer Project Name: 1007Niamey_Niger

Product Order Area (Geographic Coordinates)

Number of Coordinates: 4

Coordinate: 1

Latitude: 13.46893000 degrees

Longitude: 2.73634000 degrees

Coordinate: 2

Latitude: 13.56831000 degrees

Longitude: 2.73634000 degrees

Coordinate: 3

Latitude: 13.56831000 degrees

Longitude: 2.83795000 degrees

Coordinate: 4

Latitude: 13.46893000 degrees

Longitude: 2.83795000 degrees

Product Order Area (Map Coordinates)

Coordinate: 1

Map X (Easting): 471474.72 meters

Map Y (Northing): 1499999.77 meters

Coordinate: 2

Map X (Easting): 482467.90 meters

Map Y (Northing): 1499990.19 meters

Coordinate: 3

Map X (Easting): 482460.63 meters

Map Y (Northing): 1488999.65 meters

Coordinate: 4

Map X (Easting): 471462.89 meters

Map Y (Northing): 1489009.16 meters

Sensor Type: Satellite

Processing Level: Standard Geometrically Corrected

Image Type: MSI

Interpolator Method: Bicubic

Multispectral Algorithm: None

Stereo: Mono

Mosaic: No

Map Projection: Universal Transverse Mercator
UTM Specific Parameters
Hemisphere: N
Zone Number: 31
Datum: WGS84
Product Order Pixel Size: 4.00 meters
MTFC Applied: Yes
DRA Applied: No
Media: CD
File Format: GeoTIFF
TIFF Tiled: No
Bits per Pixel per Band: 8 bits per pixel
Multispectral Files: Separate Files
Special Instructions: NA

=====

Source Image Metadata

Number of Source Images: 1
Source Image ID: 2000091110103070000011607393
Product Image ID: 000
Sensor: IKONOS-2
Acquired Nominal GSD
Cross Scan: 1.04 meters
Along Scan: 1.31 meters
Scan Direction: 0 degrees
Nominal Collection Azimuth: 12.6339 degrees
Nominal Collection Elevation: 50.78595 degrees
Sun Angle Azimuth: 108.9467 degrees
Sun Angle Elevation: 64.84592 degrees
Acquisition Date/Time: 2000-09-11 10:10

=====

Product Space Metadata

Number of Image Tiles: 1
X Tiles: 1
Y Tiles: 1
Product MBR Geographic Coordinates
Number of Coordinates: 4
Coordinate: 1
Latitude: 13.56830988 degrees
Longitude: 2.73623072 degrees
Coordinate: 2
Latitude: 13.56839665 degrees
Longitude: 2.83796835 degrees
Coordinate: 3
Latitude: 13.46890407 degrees
Longitude: 2.83803556 degrees
Coordinate: 4
Latitude: 13.46881797 degrees
Longitude: 2.73634012 degrees
Product Map Coordinates
UL Map X (Easting): 471464.39 meters
UL Map Y (Northing): 1499998.27 meters

Pixel Size X: 4.00 meters
Pixel Size Y: 4.00 meters
Columns: 2752 pixels
Rows: 2751 pixels

=====

Product Component Metadata

Number of Components: 1
Tile ID: 0000000
Product Image ID: 000
Tile File Name: po_49488_red_0000000.tif po_49488_grn_0000000.tif
po_49488_blu_0000000.tif po_49488_nir_0000000.tif
Tile Geographic Corner Coordinates
Number of Coordinates: 4
Coordinate: 1
Latitude: 13.56830988 degrees
Longitude: 2.73623072 degrees
Coordinate: 2
Latitude: 13.56839665 degrees
Longitude: 2.83796835 degrees
Coordinate: 3
Latitude: 13.46890407 degrees
Longitude: 2.83803556 degrees
Coordinate: 4
Latitude: 13.46881797 degrees
Longitude: 2.73634012 degrees
Tile Map Coordinates
UL Map X (Easting): 471464.39 meters
UL Map Y (Northing): 1499998.27 meters
Pixel Size X: 4.00 meters
Pixel Size Y: 4.00 meters
Columns: 2752 pixels
Rows: 2751 pixels

=====

Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 20000911
Time_of_Day: 10:10
Currentness_Reference: ground condition
Status:
Progress: Complete
Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate: 2.736226
East_Bounding_Coordinate: 2.838040
North_Bounding_Coordinate: 13.568401
South_Bounding_Coordinate: 13.468813
Keywords:
Theme:
Theme_Keyword_Thesaurus: None.
Theme_Keyword: Ikonos
Theme_Keyword: High resolution imagery

Theme_Keyword: True color
 Theme_Keyword: infrared
 Theme_Keyword: vegetation
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: Fakara
 Place_Keyword: Niger
 Place_Keyword: Sahel
 Place_Keyword: West Africa
 Place_Keyword: Africa
 Temporal:
 Temporal_Keyword_Thesaurus: None
 Temporal_Keyword: 2000
 Access_Constraints: Restricted to ICRISAT (Copyright)
 Use_Constraints: Restricted to ICRISAT (Copyright)
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: Space Imaging
 Contact_Address:
 Address_Type: mailing address
 Address: 12076 Grant Street
 City: Thornton
 State_or_Province: Colorado
 Postal_Code: 80241
 Country: USA
 Contact_Voice_Telephone: (U.S.A.): 1.800.232.9037
 Contact_Voice_Telephone: (World Wide): 301.552.0537
 Contact_Facsimile_Telephone: 301.552.376
 Hours_of_Service: Monday - Friday, 7:00am - 11:00pm Eastern
 Standard Time
 Data_Set_Credit: Ikonos Space Imaging
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Color compositing realized in Envi software from original IR, red and green band received from Space Imaging
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Contact_Position: Senior Scientist
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 2751
 Column_Count: 2752
 Vertical_Count: 1
 Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

- Planar:
 - Grid_Coordinate_System:
 - Grid_Coordinate_System_Name: Universal Transverse Mercator
 - Universal_Transverse_Mercator:
 - UTM_Zone_Number: 31
 - Transverse_Mercator:
 - Scale_Factor_at_Central_Meridian: 0.999600
 - Longitude_of_Central_Meridian: 3.000000
 - Latitude_of_Projection_Origin: 0.000000
 - False_Easting: 500000.000000
 - False_Northing: 0.000000
 - Planar_Coordinate_Information:
 - Planar_Coordinate_Encoding_Method: row and column
 - Coordinate_Representation:
 - Abscissa_Resolution: 4.000000
 - Ordinate_Resolution: 4.000000
 - Planar_Distance_Units: meters
 - Geodetic_Model:
 - Horizontal_Datum_Name: D_WGS_1984
 - Ellipsoid_Name: WGS_1984
 - Semi-major_Axis: 6378137.000000
 - Denominator_of_Flattening_Ratio: 298.257224

Distribution_Information:

- Resource_Description: IKONOS Imagery
- Distribution_Liability:
- Standard_Order_Process:
 - Digital_Form:
 - Digital_Transfer_Information:
 - Transfer_Size: 0.000

Metadata_Reference_Information:

- Metadata_Date: 20070208
- Metadata_Contact:
 - Contact_Information:
 - Contact_Organization_Primary:
 - Contact_Organization: ICRISAT
 - Contact_Address:
 - Address_Type: mailing and physical address
 - Address: BP: 12404
 - City: Niamey
 - Country: Niger
 - Contact_Voice_Telephone: +22720722626
 - Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 - Contact_Instructions: <http://www.icrisat.org/>
- Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
- Metadata_Standard_Version: FGDC-STD-001-1998
- Metadata_Time_Convention: local time
- Metadata_Extensions:
 - Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 - Profile_Name: ESRI Metadata Profile

Data Set Number 208: False color Ikonos Image of the Fakara

Identification_Information:

Citation:

Citation_Information:

Originator: Space Imaging (2000)
Publication_Date: 20000101
Title: False color Ikonos Image of the Fakara
Geospatial_Data_Presentation_Form: remote-sensing image
Online_Linkage: \\ENGE-FROUFROU\LACIE
(F)\metadata_fakara\Ikonos\po_49488_fc.tif

Description:

Abstract: High Resolution Ikonos false color IR image of an are of 11x11 km covering Tigo-Tegui, Bagoua in the Fakara Niger taken on 11 September 2000

Purpose: Land use mapping

Supplemental_Information:

Metadata from Space Imaging text file:

Product Order Number: 49488
Customer Project Name: 1007Niamey_Niger
Product Order Area (Geographic Coordinates)
Number of Coordinates: 4
Coordinate: 1
Latitude: 13.46893000 degrees
Longitude: 2.73634000 degrees
Coordinate: 2
Latitude: 13.56831000 degrees
Longitude: 2.73634000 degrees
Coordinate: 3
Latitude: 13.56831000 degrees
Longitude: 2.83795000 degrees
Coordinate: 4
Latitude: 13.46893000 degrees
Longitude: 2.83795000 degrees
Product Order Area (Map Coordinates)
Coordinate: 1
Map X (Easting): 471474.72 meters
Map Y (Northing): 1499999.77 meters
Coordinate: 2
Map X (Easting): 482467.90 meters
Map Y (Northing): 1499990.19 meters
Coordinate: 3
Map X (Easting): 482460.63 meters
Map Y (Northing): 1488999.65 meters
Coordinate: 4
Map X (Easting): 471462.89 meters
Map Y (Northing): 1489009.16 meters
Sensor Type: Satellite
Processing Level: Standard Geometrically Corrected
Image Type: MSI
Interpolator Method: Bicubic
Multispectral Algorithm: None
Stereo: Mono
Mosaic: No
Map Projection: Universal Transverse Mercator

UTM Specific Parameters

Hemisphere: N
Zone Number: 31
Datum: WGS84
Product Order Pixel Size: 4.00 meters
MTFC Applied: Yes
DRA Applied: No
Media: CD
File Format: GeoTIFF
TIFF Tiled: No
Bits per Pixel per Band: 8 bits per pixel
Multispectral Files: Separate Files
Special Instructions: NA

=====

Source Image Metadata

Number of Source Images: 1
Source Image ID: 2000091110103070000011607393
Product Image ID: 000
Sensor: IKONOS-2
Acquired Nominal GSD
Cross Scan: 1.04 meters
Along Scan: 1.31 meters
Scan Direction: 0 degrees
Nominal Collection Azimuth: 12.6339 degrees
Nominal Collection Elevation: 50.78595 degrees
Sun Angle Azimuth: 108.9467 degrees
Sun Angle Elevation: 64.84592 degrees
Acquisition Date/Time: 2000-09-11 10:10

=====

Product Space Metadata

Number of Image Tiles: 1
X Tiles: 1
Y Tiles: 1
Product MBR Geographic Coordinates
Number of Coordinates: 4
Coordinate: 1
Latitude: 13.56830988 degrees
Longitude: 2.73623072 degrees
Coordinate: 2
Latitude: 13.56839665 degrees
Longitude: 2.83796835 degrees
Coordinate: 3
Latitude: 13.46890407 degrees
Longitude: 2.83803556 degrees
Coordinate: 4
Latitude: 13.46881797 degrees
Longitude: 2.73634012 degrees
Product Map Coordinates
UL Map X (Easting): 471464.39 meters
UL Map Y (Northing): 1499998.27 meters
Pixel Size X: 4.00 meters

Pixel Size Y: 4.00 meters
Columns: 2752 pixels
Rows: 2751 pixels

=====

Product Component Metadata

Number of Components: 1
Tile ID: 0000000
Product Image ID: 000
Tile File Name: po_49488_red_0000000.tif po_49488_grn_0000000.tif
po_49488_blu_0000000.tif po_49488_nir_0000000.tif
Tile Geographic Corner Coordinates
Number of Coordinates: 4
Coordinate: 1
Latitude: 13.56830988 degrees
Longitude: 2.73623072 degrees
Coordinate: 2
Latitude: 13.56839665 degrees
Longitude: 2.83796835 degrees
Coordinate: 3
Latitude: 13.46890407 degrees
Longitude: 2.83803556 degrees
Coordinate: 4
Latitude: 13.46881797 degrees
Longitude: 2.73634012 degrees
Tile Map Coordinates
UL Map X (Easting): 471464.39 meters
UL Map Y (Northing): 1499998.27 meters
Pixel Size X: 4.00 meters
Pixel Size Y: 4.00 meters
Columns: 2752 pixels
Rows: 2751 pixels

=====

Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 20000911
Time_of_Day: 10:10
Currentness_Reference: ground condition
Status:
Progress: Complete
Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate: 2.736226
East_Bounding_Coordinate: 2.838040
North_Bounding_Coordinate: 13.568401
South_Bounding_Coordinate: 13.468813
Keywords:
Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: Ikonos
Theme_Keyword: High resolution imagery
Theme_Keyword: IR

Theme_Keyword: infrared
 Theme_Keyword: vegetation
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: Fakara
 Place_Keyword: Niger
 Place_Keyword: Sahel
 Place_Keyword: West Africa
 Place_Keyword: Africa
 Temporal:
 Temporal_Keyword_Thesaurus: None
 Temporal_Keyword: 2000
 Access_Constraints: Restricted to ICRISAT (Copyright)
 Use_Constraints: Restricted to ICRISAT (Copyright)
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: Space Imaging
 Contact_Address:
 Address_Type: mailing address
 Address: 12076 Grant Street
 City: Thornton
 State_or_Province: Colorado
 Postal_Code: 80241
 Country: USA
 Contact_Voice_Telephone: (U.S.A.): 1.800.232.9037
 Contact_Voice_Telephone: (World Wide): 301.552.0537
 Contact_Facsimile_Telephone: 301.552.376
 Hours_of_Service: Monday - Friday, 7:00am - 11:00pm Eastern
 Standard Time
 Data_Set_Credit: Ikonos Space Imaging
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Cross_Reference:
 Citation_Information:
 Originator: Thornton, CO
 Publication_Date: 20001130
 Title: IKONOS scene po-37836, Level Standard Geometrically Corrected, Space Imaging/GeoEye,
 Geospatial_Data_Presentation_Form: raster digital data
 Other_Citation_Details: GeoEye owns all IKONOS imagery. Access is provided here for education or research purposes only. Users must credit GeoEye when using this imagery.
 Online_Linkage:
 <http://glcf.umiacs.umd.edu/data/ikonos/index.shtml>
 Data_Quality_Information:
 Lineage:
 Process_Step:
 Process_Description: Color compositing realized in Envi software from original IR, red and green band received from Space Imaging
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT

Contact_Position: Senior Scientist
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 2751
 Column_Count: 2752
 Vertical_Count: 1

Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: row and column
 Coordinate_Representation:
 Abscissa_Resolution: 4.000000
 Ordinate_Resolution: 4.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224

Distribution_Information:
 Resource_Description: IKONOS Imagery
 Distribution_Liability:
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.000

Metadata_Reference_Information:
 Metadata_Date: 20070208
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: +22720722626
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Instructions: <http://www.icrisat.org/>
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 202: Pan-sharpened true color Landsat 7 image for Path192 Row 051 taken on 09 November 1999

Identification_Information:

Citation:

Citation_Information:

Originator: U.S. Geological Survey
Publication_Date: 1999
Title: Pan-sharpened true color Landsat 7 image for Path192 Row 051 taken on 09 November 1999

Geospatial_Data_Presentation_Form: remote-sensing image
Online_Linkage: \\ENGE-FROUFROU\LACIE
(F)\metadata_fakara\landsat\1999\p192r051_7p19991109_z31_tc_psA.tif

Description:

Abstract: This data set is a pan-sharpened true color image of Landsat 7 ETM-EarthSat Orthorectified scene taken over the Niamey-Fakara region

Purpose: Enhance multispectral resolution using panchromatic scene (15 meter resolution)

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19991109

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 1.938093
East_Bounding_Coordinate: 4.229655
North_Bounding_Coordinate: 13.992028
South_Bounding_Coordinate: 12.038444

Keywords:

Theme:

Theme_Keyword_Thesaurus: GCMD
Theme_Keyword: EARTH SCIENCE > RADIANCE OR IMAGERY > Infrared Wavelengths > Infrared Imagery
Theme_Keyword: EARTH SCIENCE > RADIANCE OR IMAGERY > Visible Wavelengths > Visible Imagery
Theme_Keyword: EARTH SCIENCE > LAND SURFACE > Surface Radiative Properties > Reflectance
Theme_Keyword: EARTH SCIENCE > LAND SURFACE > Land Use/Land Cover > Land Classes

Theme_Keyword: EARTH SCIENCE > LAND SURFACE > Landscape > Landscape Pattern

Theme_Keyword: Pan-sharpen

Place:

Place_Keyword_Thesaurus: none
Place_Keyword: Niamey
Place_Keyword: Fakara
Place_Keyword: Niger
Place_Keyword: Sahel
Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1999

Access_Constraints: None

Use_Constraints: Cite: NASA Landsat Program, 2003, Landsat ETM+ scene L71008058_05820031026, SLC-Off, USGS, Sioux Falls, 10/26/2003 + pan-sharpening by B.Gerard

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Catholic University of Louvain

Contact_Person: BRUNO GERARD

Contact_Position: Visitor Scientist

Contact_Address:

Address_Type: mailing and physical

Address: Faculty of Biological, Agronomic and Environmental Engineering

Catholic university of Louvain

Croix du Sud, 2 bte 16

B-1348 Louvain-la-Neuve (Belgium)

Fax 32 (0) 10 47 88 98

City: Louvain-la-Neuve

Country: Belgique

Contact_Voice_Telephone: 32 (0) 10 47 92 57

Contact_Electronic_Mail_Address: b.Gerard@cgiar.org

Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be

Data_Set_Credit: The Landsat Program, as defined by Congress in 1992 and amended by Presidential Decision Directive/NSTC-3 in May 1994, is managed cooperatively by the National Aeronautics and Space Administration (NASA), and the USGS. Responsibility for construction of the spacecraft and instrument lies with NASA. The Landsat Program is part of NASA's Earth Observing System global change initiative administered by NASA's Earth Science Enterprise. Data processing, archiving, and distribution are performed by the USGS. The primary ground station, the data handling facility and archive are located at the USGS EROS Data Center in Sioux Falls, SD. NASA will manage flight operations from the control center at the Goddard Space Flight Center until October 1, 2000, when responsibility for flight operations transfers to the USGS. The ground system will be able to distribute raw ETM+ data within 24 hours of its reception at the EROS Data Center. These functions are executed in coordination with the EDC Distributed Active Archive Center (EDC DAAC) of NASA's Earth Observing System Data and Information System.

Security_Information:

Security_Classification_System: none

Security_Classification: Unclassified

Security_Handling_Description: none

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Cross_Reference:

Citation_Information:

Originator: U.S. Geological Survey

Title: Landsat Thematic Mapper Imagery (Landsat TM)

Online_Linkage: <http://earthexplorer.cr.usgs.gov/>

Data_Quality_Information:

Lineage:

Process_Step:

Process_Description:

Pan-sharpening using HSV algorithm and nearest-neighbour resampling

The HSV sharpening transforms an RGB image to HSV color space, replace the value band with the high-resolution image, automatically resample the hue and saturation bands to the high-resolution pixel size using a nearest neighbor, bilinear, or cubic convolution technique, and finally transform the image back to RGB color space. The output RGB images have the pixel size of the input high-resolution data.

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Bruno Gerard

Contact_Organization: ICRISAT

Contact_Address:

Address_Type: mailing and physical address

Address: BP: 12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: +22720722626

Contact_Voice_Telephone: +22720722529

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: b.gerard@cgiar.org

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Contact_Instructions: <http://www.icrisat.org/>

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Raster

Raster_Object_Information:

Raster_Object_Type: Pixel

Row_Count: 15140

Column_Count: 17368

Vertical_Count: 1

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000

False_Easting: 500000.000000

False_Northing: 0.000000

Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: row and column

Coordinate_Representation:

Abscissa_Resolution: 14.250000

Ordinate_Resolution: 14.250000

Planar_Distance_Units: meters

Geodetic_Model:

Horizontal_Datum_Name: D_WGS_1984

Ellipsoid_Name: WGS_1984

Semi-major_Axis: 6378137.000000

Denominator_of_Flattening_Ratio: 298.257224

Distribution_Information:

Distributor:

Contact_Information:
Contact_Organization_Primary:
Contact_Organization: U.S. Geological Survey
Contact_Address:
Address_Type: mailing and physical address
Address: Service, EROS, 800-252-4547
Contact_Electronic_Mail_Address: custserv@usgs.gov
Contact_Instructions:
Resource_Description: Pan-sharpened true color Landsat 7 image for
Path192 Row 051 taken on 09 November 1999
Distribution_Liability:
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Transfer_Size: 0.000
Metadata_Reference_Information:
Metadata_Date: 20070206
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISAT
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
State_or_Province:
Postal_Code:
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
Contact_Instructions: <http://www.icrisat.org>
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 201: Pan-sharpened false color IR Landsat 7 image for Path192 Row 051 taken on 09 November 1999

Identification_Information:

Citation:

Citation_Information:

Originator: U.S. Geological Survey

Publication_Date: 1999

Title: Pan-sharpened false color IR Landsat 7 image for Path192 Row 051 taken on 09 November 1999

Geospatial_Data_Presentation_Form: remote-sensing image

Online_Linkage: \\ENGE-FROUFROU\LACIE

(F)\metadata_fakara\landsat\1999\p192r051_7p19991109_z31_fcir_psA.tif

Description:

Abstract: This data set is a pan-sharpened false colour IR image of Landsat 7 ETM-EarthSat Orthorectified scene taken over the Niamey-Fakara region

Purpose: Enhance multispectral resolution using panchromatic scene (15 meter resolution)

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19991109

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 1.938093

East_Bounding_Coordinate: 4.229655

North_Bounding_Coordinate: 13.992028

South_Bounding_Coordinate: 12.038444

Keywords:

Theme:

Theme_Keyword_Thesaurus: GCMD

Theme_Keyword: EARTH SCIENCE > RADIANCE OR IMAGERY > Infrared Wavelengths > Infrared Imagery

Theme_Keyword: EARTH SCIENCE > RADIANCE OR IMAGERY > Visible Wavelengths > Visible Imagery

Theme_Keyword: EARTH SCIENCE > LAND SURFACE > Surface Radiative Properties > Reflectance

Theme_Keyword: EARTH SCIENCE > LAND SURFACE > Land Use/Land Cover > Land Classes

Theme_Keyword: EARTH SCIENCE > LAND SURFACE > Landscape > Landscape Pattern

Theme_Keyword: Pan-sharpen

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Niamey

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: Sahel

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 1999
Access_Constraints: None
Use_Constraints: Cite: NASA Landsat Program, 2003, Landsat ETM+ scene L71008058_05820031026, SLC-Off, USGS, Sioux Falls, 10/26/2003 + pan-sharpening by B.Gerard
Point_of_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: Catholic University of Louvain
Contact_Person: BRUNO GERARD
Contact_Position: Visitor Scientist
Contact_Address:
Address_Type: mailing and physical
Address: Faculty of Biological, Agronomic and Environmental Engineering
Catholic university of Louvain
Croix du Sud, 2 bte 16
B-1348 Louvain-la-Neuve (Belgium)
Fax 32 (0) 10 47 88 98

City: Louvain-la-Neuve
Country: Belgique
Contact_Voice_Telephone: 32 (0) 10 47 92 57
Contact_Electronic_Mail_Address: b.Gerard@cgiar.org
Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be
Data_Set_Credit: The Landsat Program, as defined by Congress in 1992 and amended by Presidential Decision Directive/NSTC-3 in May 1994, is managed cooperatively by the National Aeronautics and Space Administration (NASA), and the USGS. Responsibility for construction of the spacecraft and instrument lies with NASA. The Landsat Program is part of NASA's Earth Observing System global change initiative administered by NASA's Earth Science Enterprise. Data processing, archiving, and distribution are performed by the USGS. The primary ground station, the data handling facility and archive are located at the USGS EROS Data Center in Sioux Falls, SD. NASA will manage flight operations from the control center at the Goddard Space Flight Center until October 1, 2000, when responsibility for flight operations transfers to the USGS. The ground system will be able to distribute raw ETM+ data within 24 hours of its reception at the EROS Data Center. These functions are executed in coordination with the EDC Distributed Active Archive Center (EDC DAAC) of NASA's Earth Observing System Data and Information System.
Security_Information:
Security_Classification_System: none
Security_Classification: Unclassified
Security_Handling_Description: none
Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
Cross_Reference:
Citation_Information:
Originator: U.S. Geological Survey
Title: Landsat Thematic Mapper Imagery (Landsat TM)
Online_Linkage: <http://earthexplorer.cr.usgs.gov/>
Data_Quality_Information:
Lineage:
Process_Step:
Process_Description:

Pan-sharpening using HSV algorithm and nearest-neighbour resampling

The HSV sharpening transforms an RGB image to HSV color space, replace the value band with the high-resolution image, automatically resample the hue and saturation bands to the high-resolution pixel size using a nearest neighbor, bilinear, or cubic convolution technique, and finally transform the image back to RGB color space. The output RGB images have the pixel size of the input high-resolution data.

Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 15140
 Column_Count: 17368
 Vertical_Count: 1
Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: row and column
 Coordinate_Representation:
 Abscissa_Resolution: 14.250000
 Ordinate_Resolution: 14.250000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Organization: U.S. Geological Survey
 Contact_Address:
 Address_Type: mailing and physical address
 Address: Service, EROS, 800-252-4547
 Contact_Electronic_Mail_Address: custserv@usgs.gov
 Contact_Instructions:
 Resource_Description: Pan-sharpened false color IR Landsat 7 image
 for Path192 Row 051 taken on 09 November 1999
 Distribution_Liability:

Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.000
Metadata_Reference_Information:
 Metadata_Date: 20070206
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 City: Niamey
 State_or_Province:
 Postal_Code:
 Country: Niamey
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Instructions: <http://www.icrisat.org>
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 205: Georeferenced Corona Image of the Fakara-1 (Niger, 1965)

Identification_Information:

Citation:

Citation_Information:

Originator: USGS National Center for Earth Resources Observation & Science (EROS)

Publication_Date: 19950101

Title: Georeference Corona Image of the Fakara (Niger, 1995)

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Sioux Falls, South Dakota, USA

Publisher: USGS National Center for Earth Resources Observation & Science (EROS)

Online_Linkage: \\ENGE-

FROUFROU\F\metadata_fakara\Corrona\corona_fakara_ds1018_51.tif

Description:

Abstract: On February 24, 1995, President Clinton signed an Executive

Order, directing the declassification of intelligence imagery acquired by the first generation of United States photo-reconnaissance satellites, including the systems code-named CORONA, ARGON, and LANYARD. More than 860,000 images of Earth's surface, collected between 1960 and 1972, were declassified with the issuance of this Executive Order. The National Archives and Records Administration (NARA) was given the responsibility for the original film and provide access to a duplicate copy for public viewing of the film. The USGS was also provided a dupe copy to support science products. Both NARA and the USGS provide access and product support for Declass-1 collection.

Online requests for these data can be placed via the Earth Explorer interactive query system.

Image was scanned at Agrhymet and georeferenced by D. Bakary and B. Gerard

Purpose: Use in this context to estimate landuse pattern in 1965

The Declassified Image collection was driven, in part, by the need to confirm purported developments in then-Soviet strategic missile capabilities. The images also were used to produce maps and charts for the Department of Defense and for other Federal Government mapping programs. The CORONA system provided a cost effective method to map the earth from space with stereo-optical images. CORONA demonstrated that the ability to adapt rapidly to a changing world is critical to the success of U.S. intelligence. This need to adapt grows even more acute as the pace of technological advancement increases. Data provided by CORONA offers beneficial information for environmentalists, scientists, scholars, and historians.

Supplemental_Information: In addition to the images, documents and reports

(collateral information) are available, pertaining to frame ephemeris data, orbital ephemeris data, and mission performance. Document availability varies by mission; documentation was not produced for unsuccessful missions.

Corner coordinate data is a critical component of the index information. Accuracy in locating corner coordinates varies according to how coordinates were derived and according to the accuracy of information used for the derivation. As a general rule, metadata corner points have errors less than 10 miles from their actual ground positions for the CORONA and LANYARD systems, and less than 50 miles for the ARGON system. After a search of the metadata, the user should inspect the browse image and its immediate neighbors in the image series for the point of interest before placing an order. For example, each CORONA image is about 10 miles wide and looking at three consecutive images in a series will compensate for 10 mile errors in cornerpoint locations. Also, the use of browse imagery allows the user to review a reduced resolution image to determine whether or not a specific site is contained in the selected frame. Check the following links for further information:

Declassified Satellite Imagery - 1 Fact Sheet

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19650329

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.307410

East_Bounding_Coordinate: 2.921364

North_Bounding_Coordinate: 13.746900

South_Bounding_Coordinate: 13.494524

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: DECLASSIFIED

Theme_Keyword: PANORAMIC CAMERA

Theme_Keyword: PHOTOGRAPHY

Theme_Keyword: ARGON

Theme_Keyword: ENVIRONMENTAL

Theme_Keyword: LANYARD

Theme_Keyword: USGS

Theme_Keyword: SATELLITE

Theme_Keyword: EDC

Theme_Keyword: EROS

Theme_Keyword: PHOTOGRAPHS

Theme_Keyword: CARTOGRAPHIC CAMERA

Theme_Keyword: PHOTO-RECONNAISSANCE

Theme_Keyword: Visible Imagery

Theme_Keyword: Infrared Imagery

Theme_Keyword: CORONA

Theme_Keyword: IMAGERY

Theme_Keyword: Visible

Theme_Keyword: Infrared

Theme_Keyword: Wavelengths
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: FAKARA
 Place_Keyword: NIGER
 Place_Keyword: SAHEL
 Place_Keyword: WEST AFRICA
 Place_Keyword: AFRICA
 Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 1965
 Access_Constraints: None
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: USGS National Center for Earth Resources
 Observation & Science (EROS)
 Browse_Graphic:
 Browse_Graphic_File_Type: JPEG
 Security_Information:
 Security_Classification_System: none
 Security_Classification: Unclassified
 Security_Handling_Description: none
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Logical_Consistency_Report: Not available
 Completeness_Report:
 These images were retrieved under rigid quality control and
 product specifications.
 Lineage:
 Source_Information:
 Source_Citation:
 Citation_Information:
 Originator: U.S. Geological Survey
 Publication_Date: 19650329
 Title: DECLASSIFIED SATELLITE PHOTOGRAPHY: DS1018-1059DA051
 Geospatial_Data_Presentation_Form: Remote-sensing image
 Publication_Information:
 Publication_Place: Sioux Falls, South Dakota, USA
 Publisher: U.S. Geological Survey
 Online_Linkage: <http://earthexplorer.usgs.gov>
 Source_Time_Period_of_Content:
 Source_Currentness_Reference: ground condition
 Source_Citation_Abbreviation: Declass-1
 Process_Step:
 Process_Description:
 This image collection was produced under strict
 military guidelines and initially used to produce maps
 and charts, providing stereo-optical coverage of
 selected areas, for the U.S. Department of Defense.
 Process_Date: Unknown
 Process_Step:
 Process_Description: Film scanned at Agrhymet and image
 georeferenced. Further rubbersheeting was performed using
 orthorectified pan-sharpened Spot 5 image

Process_Step:
 Process_Description: Metadata imported from USGS web site and edited
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Cloud_Cover: 40
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 6788
 Column_Count: 16201
 Vertical_Count: 1
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: row and column
 Coordinate_Representation:
 Abscissa_Resolution: 4.096429
 Ordinate_Resolution: 4.096429
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Person: Service Coordinator
 Contact_Position: Service Coordinator
 Contact_Address:
 Address_Type: mailing and physical address
 City: Sioux Falls
 State_or_Province: SD
 Postal_Code: 57198-0001
 Country: USA
 Contact_Voice_Telephone: +001 605-594-6151 or U.S. toll free: 1-800-252-4547
 Contact_Facsimile_Telephone: +001 605-594-6589
 Contact_Electronic_Mail_Address: custserv@usgs.gov
 Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT

Resource_Description: Georeference Corona Image of the Fakara (Niger, 1995)

Distribution_Liability: Although these data have been processed successfully on a computer system at the USGS, no warranty expressed or implied is made by the USGS regarding the use of the data on any other system, nor does the act of distribution constitute any such warran

Standard_Order_Process:

Non/digital_Form: Mission-specific reports (collateral information) of varied length

Fees: Product media formats, pricing and shipping information are available at: <<http://edcsns17.cr.usgs.gov/helpdocs/prices.html>>

Ordering_Instructions: Online Ordering: Once you have selected the image of your choice via the EarthExplorer system at <<http://earthexplorer.usgs.gov>> , Contact Customer Services at the USGS National Center for Earth Resources Observation & Science (EROS) at <<http://edc.u>

Turnaround: Delivery Times

Metadata_Reference_Information:

Metadata_Date: 20070207

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: USGS National Center for Earth Resources Observation & Science (EROS)

Contact_Position: Archive Management

Contact_Address:

Address_Type: mailing and physical address

Address: Archive Management, USGS National Center for Earth Resources Observation & Science (EROS)

City: Sioux Falls

State_or_Province: SD

Postal_Code: 57198-0001

Country: USA

Contact_Voice_Telephone: +001 605-594-6594 or U.S. toll free: 1-800-252-4547

Contact_Facsimile_Telephone: +001 605-594-6953

Contact_Electronic_Mail_Address: meta@usgs.gov

Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: None

Metadata_Use_Constraints: None

Metadata_Security_Information:

Metadata_Security_Classification_System: None

Metadata_Security_Classification: Declassified

Metadata_Security_Handling_Description: None

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

Data Set Number 206: Georeferenced Corona Image of the Fakara-2 (Niger, 1965)

Identification_Information:

Citation:

Citation_Information:

Originator: USGS National Center for Earth Resources Observation & Science (EROS)

Publication_Date: 19950101

Title: Georeference Corona Image of the Fakara (Niger, 1995)

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Sioux Falls, South Dakota, USA

Publisher: USGS National Center for Earth Resources Observation & Science (EROS)

Online_Linkage: \\ENGE-

FROUFROU\F\metadata_fakara\Corrona\corona_fakara_ds1018_52.tif

Description:

Abstract: On February 24, 1995, President Clinton signed an Executive

Order, directing the declassification of intelligence imagery acquired by the first generation of United States photo-reconnaissance satellites, including the systems code-named CORONA, ARGON, and LANYARD. More than 860,000 images of Earth's surface, collected between 1960 and 1972, were declassified with the issuance of this Executive Order. The National Archives and Records Administration (NARA) was given the responsibility for the original film and provide access to a duplicate copy for public viewing of the film. The USGS was also provided a dupe copy to support science products. Both NARA and the USGS provide access and product support for Declass-1 collection.

Online requests for these data can be placed via the Earth Explorer interactive query system.

Image was scanned at Agrhymet and georeferenced by D. Bakary and B. Gerard

Purpose: Use in this context to estimate landuse pattern in 1965

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Declassified Satellite Imagery - 1 Fact Sheet

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19650329

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.292472

East_Bounding_Coordinate: 2.921116

North_Bounding_Coordinate: 13.614442

South_Bounding_Coordinate: 13.321138

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: DECLASSIFIED

Theme_Keyword: PANORAMIC CAMERA

Theme_Keyword: PHOTOGRAPHY

Theme_Keyword: ARGON

Theme_Keyword: ENVIRONMENTAL

Theme_Keyword: LANYARD

Theme_Keyword: USGS

Theme_Keyword: SATELLITE

Theme_Keyword: EDC

Theme_Keyword: EROS

Theme_Keyword: PHOTOGRAPHS

Theme_Keyword: CARTOGRAPHIC CAMERA

Theme_Keyword: PHOTO-RECONNAISSANCE

Theme_Keyword: Visible Imagery

Theme_Keyword: Infrared Imagery

Theme_Keyword: CORONA

Theme_Keyword: IMAGERY

Theme_Keyword: Wavelengths

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: FAKARA
 Place_Keyword: NIGER
 Place_Keyword: SAHEL
 Place_Keyword: WEST AFRICA
 Place_Keyword: AFRICA
 Temporal:
 Temporal_Keyword_Thesaurus: None
 Temporal_Keyword: 1995
 Access_Constraints: None
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Organization:
 Browse_Graphic:
 Browse_Graphic_File_Type: JPEG
 Security_Information:
 Security_Classification_System: none
 Security_Classification: Unclassified
 Security_Handling_Description: none
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Logical_Consistency_Report: Not available
 Completeness_Report:
 These images were retrieved under rigid quality control and product specifications.
 Lineage:
 Source_Information:
 Source_Citation:
 Citation_Information:
 Originator: U.S. Geological Survey
 Publication_Date: 19650329
 Title: DECLASSIFIED SATELLITE PHOTOGRAPHY: DS1018-1059DA051
 Geospatial_Data_Presentation_Form: Remote-sensing image
 Publication_Information:
 Publication_Place: Sioux Falls, South Dakota, USA
 Publisher: U.S. Geological Survey
 Online_Linkage: <http://earthexplorer.usgs.gov>
 Source_Time_Period_of_Content:
 Source_Currentness_Reference: ground condition
 Source_Citation_Abbreviation: Declass-1
 Process_Step:
 Process_Description: This image collection was produced under strict military guidelines and initially used to produce maps and charts, providing stereo-optical coverage of selected areas, for the U.S. Department of Defense.
 Process_Date: Unknown
 Process_Step:
 Process_Description: Film scanned at Agrhymet and image georeferenced. Further rubbersheeting was performed using orthorectified pan-sharpened Spot 5 image
 Process_Step:
 Process_Description: Metadata imported from USGS web site and edited

Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Cloud_Cover: 40
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 8236
 Column_Count: 17321
 Vertical_Count: 1
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: row and column
 Coordinate_Representation:
 Abscissa_Resolution: 3.925354
 Ordinate_Resolution: 3.925354
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: USGS National Center for Earth Resources
 Observation & Science (EROS)
 Contact_Person: Service Coordinator
 Contact_Position: Service Coordinator
 Contact_Address:
 Address_Type: mailing and physical address
 Address: Customer Services, USGS National Center for Earth
 Resources Observation & Science (EROS)
 City: Sioux Falls
 State_or_Province: SD
 Postal_Code: 57198-0001
 Country: USA
 Contact_Voice_Telephone: +001 605-594-6151 or U.S. toll free: 1-
 800-252-4547
 Contact_Facsimile_Telephone: +001 605-594-6589
 Contact_Electronic_Mail_Address: custserv@usgs.gov

Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT
Contact_Instructions: Online Ordering: Once you have selected the image of your choice online via the EarthExplorer system at <<http://earthexplorer.usgs.gov>> , Contact Customer Services at the USGS National Center for Earth Resources Observation & Science (EROS) <<http://e>

Resource_Description: Georeference Corona Image of the Fakara (Niger, 1995)
Distribution_Liability: Although these data have been processed successfully on a computer system at the USGS, no warranty expressed or implied is made by the USGS regarding the use of the data on any other system, nor does the act of distribution constitute any such warran

Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Transfer_Size: 0.000
Fees: Product media formats, pricing and shipping information are available at: <<http://edcsns17.cr.usgs.gov/helpdocs/prices.html>>
Ordering_Instructions: Online Ordering: Once you have selected the image of your choice via the EarthExplorer system at <<http://earthexplorer.usgs.gov>> , Contact Customer Services at the USGS National Center for Earth Resources Observation
Turnaround: Delivery Times
Custom_Order_Process: You may also order directly from this site.
Technical_Prerequisites: Adequate computer capability is the only technical prerequisite for viewing data in digital form.

Metadata_Reference_Information:
Metadata_Date: 20070207
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: USGS National Center for Earth Resources Observation & Science (EROS)
Contact_Position: Archive Management
Contact_Address:
Address_Type: mailing and physical address
Address: Archive Management, USGS National Center for Earth Resources Observation & Science (EROS)
City: Sioux Falls
State_or_Province: SD
Postal_Code: 57198-0001
Country: USA
Contact_Voice_Telephone: +001 605-594-6594 or U.S. toll free: 1-800-252-4547
Contact_Facsimile_Telephone: +001 605-594-6953
Contact_Electronic_Mail_Address: meta@usgs.gov
Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: None
Metadata_Use_Constraints: None
Metadata_Security_Information:
Metadata_Security_Classification_System: None
Metadata_Security_Classification: Declassified
Metadata_Security_Handling_Description: None

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

Data Set Number 207: 3 arc second (90 meter) Digital Elevation Model from Shuttle Radar Topography Mission (SRTM) for Path192 Row 052

Identification_Information:

Citation:

Citation_Information:

Originator: USGS National Center for Earth Resources Observation & Science (EROS)

Publication_Date: 19950101

Title: Georeference Corona Image of the Fakara (Niger, 1995)

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Sioux Falls, South Dakota, USA

Publisher: USGS National Center for Earth Resources Observation & Science (EROS)

Online_Linkage: \\ENGE-

FROUFROU\F\metadata_fakara\Corrona\corona_fakara_ds1018_52.tif

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Image was scanned at Agrhymet and georeferenced by D. Bakary and B. Gerard

Purpose: Use in this context to estimate landuse pattern in 1965

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Declassified Satellite Imagery - 1 Fact Sheet

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19650329

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.292472

East_Bounding_Coordinate: 2.921116

North_Bounding_Coordinate: 13.614442

South_Bounding_Coordinate: 13.321138

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: DECLASSIFIED

Theme_Keyword: PANORAMIC CAMERA

Theme_Keyword: PHOTOGRAPHY

Theme_Keyword: ARGON

Theme_Keyword: ENVIRONMENTAL

Theme_Keyword: LANYARD

Theme_Keyword: USGS

Theme_Keyword: SATELLITE

Theme_Keyword: EDC

Theme_Keyword: EROS

Theme_Keyword: PHOTOGRAPHS

Theme_Keyword: CARTOGRAPHIC CAMERA

Theme_Keyword: PHOTO-RECONNAISSANCE

Theme_Keyword: Visible Imagery

Theme_Keyword: Infrared Imagery

Theme_Keyword: CORONA

Theme_Keyword: IMAGERY

Theme_Keyword: Wavelengths

Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: FAKARA
 Place_Keyword: NIGER
 Place_Keyword: SAHEL
 Place_Keyword: WEST AFRICA
 Place_Keyword: AFRICA

Temporal:
 Temporal_Keyword_Thesaurus: None
 Temporal_Keyword: 1995

Access_Constraints: None
 Use_Constraints: None
 Point_of_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Organization:

Browse_Graphic:
 Browse_Graphic_File_Type: JPEG

Security_Information:
 Security_Classification_System: none
 Security_Classification: Unclassified
 Security_Handling_Description: none

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Data_Quality_Information:
 Logical_Consistency_Report: Not available
 Completeness_Report:
 These images were retrieved under rigid quality control and product specifications.

Lineage:
 Source_Information:
 Source_Citation:
 Citation_Information:
 Originator: U.S. Geological Survey
 Publication_Date: 19650329
 Title: DECLASSIFIED SATELLITE PHOTOGRAPHY: DS1018-1059DA051
 Geospatial_Data_Presentation_Form: Remote-sensing image
 Publication_Information:
 Publication_Place: Sioux Falls, South Dakota, USA
 Publisher: U.S. Geological Survey
 Online_Linkage: <http://earthexplorer.usgs.gov>
 Source_Time_Period_of_Content:
 Source_Currentness_Reference: ground condition
 Source_Citation_Abbreviation: Declass-1

Process_Step:
 Process_Description: This image collection was produced under strict military guidelines and initially used to produce maps and charts, providing stereo-optical coverage of selected areas, for the U.S. Department of Defense.
 Process_Date: Unknown

Process_Step:
 Process_Description: Film scanned at Agrhymet and image georeferenced. Further rubbersheeting was performed using orthorectified pan-sharpened Spot 5 image
 Process_Step:

Process_Description: Metadata imported from USGS web site and edited
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT
 Cloud_Cover: 40
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Raster
 Raster_Object_Information:
 Raster_Object_Type: Pixel
 Row_Count: 8236
 Column_Count: 17321
 Vertical_Count: 1
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: row and column
 Coordinate_Representation:
 Abscissa_Resolution: 3.925354
 Ordinate_Resolution: 3.925354
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: USGS National Center for Earth Resources Observation & Science (EROS)
 Contact_Person: Service Coordinator
 Contact_Position: Service Coordinator
 Contact_Address:
 Address_Type: mailing and physical address
 Address: Customer Services, USGS National Center for Earth Resources Observation & Science (EROS)
 City: Sioux Falls
 State_or_Province: SD
 Postal_Code: 57198-0001
 Country: USA
 Contact_Voice_Telephone: +001 605-594-6151 or U.S. toll free: 1-800-252-4547

Contact_Facsimile_Telephone: +001 605-594-6589
Contact_Electronic_Mail_Address: custserv@usgs.gov
Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT
Contact_Instructions: Online Ordering: Once you have selected the image of your choice online via the EarthExplorer system at <<http://earthexplorer.usgs.gov>> , Contact Customer Services at the USGS National Center for Earth Resources Observation & Science (EROS)
<<http://e>

Resource_Description: Georeference Corona Image of the Fakara (Niger, 1995)

Distribution_Liability: Although these data have been processed successfully on a computer system at the USGS, no warranty expressed or implied is made by the USGS regarding the use of the data on any other system, nor does the act of distribution constitute any such warran

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 0.000

Fees: Product media formats, pricing and shipping information are available at: <<http://edcsns17.cr.usgs.gov/helpdocs/prices.html>>

Ordering_Instructions: Online Ordering: Once you have selected the image of your choice via the EarthExplorer system at <<http://earthexplorer.usgs.gov>> , Contact Customer Services at the USGS National Center for Earth Resources Observation

Turnaround: Delivery Times

Custom_Order_Process: You may also order directly from this site.

Technical_Prerequisites: Adequate computer capability is the only technical prerequisite for viewing data in digital form.

Metadata_Reference_Information:

Metadata_Date: 20070207

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: USGS National Center for Earth Resources Observation & Science (EROS)

Contact_Position: Archive Management

Contact_Address:

Address_Type: mailing and physical address

Address: Archive Management, USGS National Center for Earth Resources Observation & Science (EROS)

City: Sioux Falls

State_or_Province: SD

Postal_Code: 57198-0001

Country: USA

Contact_Voice_Telephone: +001 605-594-6594 or U.S. toll free: 1-800-252-4547

Contact_Facsimile_Telephone: +001 605-594-6953

Contact_Electronic_Mail_Address: meta@usgs.gov

Hours_of_Service: 0800 - 1600 CT, M-F, -6 h GMT

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: None

Metadata_Use_Constraints: None

Metadata_Security_Information:

Metadata_Security_Classification_System: None

Metadata_Security_Classification: Declassified
Metadata_Security_Handling_Description: None
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 101: Effect of corralling on millet production

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 23 October 2006

Title: ; Effect of corralling on millet production

Edition: version 1

Geospatial_Data_Presentation_Form: spreadsheet

Description:

Abstract: In order to obtain quantitative information on corralling, wide area survey with 155 Fulani households (36 Fulani in Banizoumbou, 57 in Tchigo Tegui and 62 in Kodey) was carried out in terms of household capacity for corralling as well as agricultural production. The parameter was on number of family, number of livestock, millet production and quantity for the compensation to landowner. Obtained information was analyzed through cluster analysis to identify the characteristics of Fulani household. Based on the result from analysis, majority group was assigned for detailed survey on corralling practice in terms of area and duration of corralling. According to the result through cluster analysis on Fulani, 6 or 7 groups in each village were identified and its characteristics on corralling as well as agricultural production were obtained. First and third group in Banizoumbou occupied 41.4% and 34.5%, respectively. The Fulani in these groups showed fewer numbers of family and lower productions than other groups. They possessed diversified livestock species but more number in cow and goat. Second and third group in Tchigo Tegui occupied 43.9% and 26.8%, respectively. These groups showed also fewer numbers of family and lower productions than others. Main types of livestock in these groups were cow and goat. Possession of each type was lower than other groups. Second and fourth group in Kodey occupied 38.5% and 29.8%, respectively. Second group showed relatively higher number of family and it possessed only cow. On the other hand, fourth group showed lower numbers of family and diversified type of livestock. However, small ruminant was dominant of the group.

Purpose: Obtain quantitative information on the productivity in Fulani households in order to evaluate actual situation of agricultural production in Fakara

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: June 2003

Single_Date/Time:

Calendar_Date: October 2005

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: agricultural production

Theme_Keyword: Fulani households
Theme_Keyword: corralling
Place:
Place_Keyword_Thesaurus: None
Place_Keyword: West Africa
Place_Keyword: Niger
Place_Keyword: Fakara
Place_Keyword: Katanga
Place_Keyword: Gourou Yena
Point_of_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: JIRCAS
Contact_Person: HAYASHI KEIICHI
Contact_Position: Special Project Scientist
Contact_Address:
Address_Type: mailing and physical
Address: BP: 12404
Fax: 20734329

City: NIAMEY
Country: NIGER
Contact_Voice_Telephone: Tel: 20722529
Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
Hours_of_Service: Monday to Friday 8H AM to 16H PM Z+1
Cross_Reference:
Citation_Information:
Originator: Mamadou Sangare, Salvador Fernandez-Rivera, Pierre
Hiernaux, Andre Bationo, Vijay Pandey
Publication_Date: 2002
Title: Influence of dry season supplementation for cattle on soil
fertility and millet (*Pennisetum glaucum* L.) yield in a mixed
crop/livestock production system of the Sahel
Series_Information:
Series_Name: Nutrient Cycling in Agroecosystems
Issue_Identification: 62: 209-217
Publication_Information:
Publication_Place: Netherlands
Publisher: Kluwer Academic Publishers
Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report: 3 sites in Katanga and 1 site in Gourou
Yena
Quantitative_Attribute_Accuracy_Assessment:
Attribute_Accuracy_Explanation: 3x3 factorial split plot design,
main plot; fertilizer application (number of night for corralling with
or without inorganic fertilizer), sub plot; supplement for livestock (0
g day⁻¹, 360 g day⁻¹, 720 g day⁻¹ of millet bran)
Lineage:
Source_Information:
Source_Citation:
Citation_Information:
Originator: Keiichi Hayashi
Publication_Date: 2005
Title: Obtaining quantitative information of IK for
evaluation of fertility level in sandy soils in the study site

Series_Information:
 Series_Name: JIRCAS-ICRISAT intermediate evaluation meeting
 Issue_Identification: September 12, 2005
 Publication_Information:
 Publication_Place: Niamey
 Publisher: JIRCAS

Process_Step:
 Process_Description: Interview of 155 households in three
 villages of Fakara area (Banizoumbou, Tigo tegui et Kodey) and input
 the raw data into spreadsheet of Excel and processed them by Excel

Process_Date: Unknown

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Yield and biomass production for cropping 2003
 (KA1, KA2, KA4, GY5)
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute:
 Attribute_Label: CHAMP
 Attribute_Definition: Code of Field
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: PLOT
 Attribute_Definition: Name of Plot
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: LEAVE_FRES
 Attribute_Definition: fresh weight of leaves
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: LEAVE_DRIE
 Attribute_Definition: Dry weight of leaves
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: GRAIN
 Attribute_Definition: Weight of grain
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: STEM
 Attribute_Definition: weight of stem
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: NO._OF_HIL
 Attribute_Definition: number of hill
 Attribute_Definition_Source: Keiichi Hayashi

Distribution_Information:
 Distributor:
 Contact_Information:

Contact_Address:
Address_Type: mailing and physical
Address: Japan International Research Center for Agricultural
Sciences (JIRCAS)
City: Ohwashi, Tsukuba, Ibaraki
Country: JAPAN
Contact_Voice_Telephone: +81 29 838 6330
Contact_Facsimile_Telephone: +81 29 838 6316
Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Contact_Instructions: http://www.jircas.affrc.go.jp
Resource_Description: Yield and biomass production for cropping 2003
(KA1, KA2, KA4, GY5)
Distribution_Liability: Users who need the data should explore the
metadata files and should contact JIRCAS via his physical or mailing
address
Metadata_Reference_Information:
Metadata_Date: 20061211
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: AMADOU M.Laouali
Contact_Organization: ICRISATSC
Contact_Address:
Address_Type: mailing and physical
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Facsimile_Telephone: 0022720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Metadata available on Icrisat server
until the final decision of the project about data and their metadata
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified

***Data Set Number 15: Indigenous ecological knowledge in southwestern Niger
(Ethnobotanical survey)***

Identification_Information:

Citation:

Citation_Information:

Publication_Date: Unpublished material

Title: Indigenous ecological knowledge in southwestern Niger

Edition: first version

Geospatial_Data_Presentation_Form: spreadsheet

Description:

Purpose: The survey was carried out to document indigenous ecological knowledge specifically the different uses of the herbaceous and woody plant species, and strategies for conservation.

Supplemental_Information: This is still a raw data that is yet to be analysed talkless of being published

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: April 2005

Ending_Date: December 2005

Status:

Progress: In work

Maintenance_and_Update_Frequency: Irregular

Keywords:

Theme:

Theme_Keyword: Indigenous knowledge

Theme_Keyword: plant genetic resources

Place:

Place_Keyword: Sahel

Place_Keyword: Western Niger

Place_Keyword: Fakara

Access_Constraints: The data is not yet analysed and is therefore not available until publication

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ILRI/ICRISAT

Contact_Person: AYANTUNDE A. AUGUSTINE

Contact_Position: Animal Scientist

Contact_Address:

Address_Type: mailing and physical

Address: BP: 12404, Niamey

Fax: 20752804

City: NIAMEY

Country: NIGER

Contact_Voice_Telephone: Tel: +227 20722529

Contact_Electronic_Mail_Address: a.a.ayantunde@cgiar.org

Hours_of_Service: Monday to Friday, From 8H am to 16H pm

Data_Set_Credit: The survey was partially funded by Desert Margins Programs (DMP). The dataset belongs to ILRI.

Native_Data_Set_Environment: Microsoft Excel

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: About 200 farmers and herders of two ethnic groups - Djerma and Peulh - were interviewed on their knowledge of the herbaceous and woody plant species in Fakara.

Lineage:

Process_Step:

Process_Description: Data collected from the survey were entered by an assistant using Microsoft Excel. Preliminary statistical analysis of the data will be performed using SAS.

Process_Date: Not complete

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Ethno-botanical survey

Entity_Type_Definition: Explanation of codes for survey on ethnobotany conducted in Fakara (April - Dec 2005)

Entity_Type_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: ENQUET

Attribute_Definition: Enumerator who conducted the interview (1 to 3 for the 3 enumerators)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: RESID

Attribute_Definition: Identification number of the respondent (1 to 209)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: GENDER

Attribute_Definition: Gender of the respondent (Male = 1; Female = 2)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: MARSTAT

Attribute_Definition: Marital status of the respondent (Married = 1; Single = 2)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: ETHNIE

Attribute_Definition: Ethnicity of the respondent (Djerma = 1; Peulh = 2)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: OCCUPA

Attribute_Definition: Occupation of the respondent (Farmer = 1; Household worker = 2; Herder = 3; bricklayer = 4; Others = 5)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: TERROIR

Attribute_Definition: Village territory (Banizoumbou = 1; Tchigo = 2; Kodey = 3)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:

Attribute_Label: VILLAGE

Attribute_Definition: Village of the respondent (Banizoumbou = 1; Yellowa = 2; Boundou = 3; Tchigo Tegui = 4; Katanga = 5; Kodey = 6; Gorou Yena = 7)

Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: AGE
Attribute_Definition: Age of the respondent
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: EDULEV
Attribute_Definition: Education level of the respondent
(Illiterate = 1; Primary = 2; Secondary = 3; Arabic education = 4;
Higher education = 5)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: GROUP
Attribute_Definition: Survey group of the respondent (Adult
Djerma male = 1; Young Djerma male = 2; Adult Djerma female = 3; Young
Djerma female = 4; Adult Peulh male = 5; Young Peulh male = 6; Adult
Peulh female = 7; Young Peulh female = 8)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: PLANT
Attribute_Definition: Plant species number (1 to 123)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: MEDUSE
Attribute_Definition: of the plant species for medicine (Yes or
No)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: MEDPART
Attribute_Definition: Plant part being used for medicine (E =
Bark; G = Fruits; F = Leaves; L = Flowers; R = Root; T = Stem; S =
Sap; J = Young plant ; P = whole plant)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: MEDHA
Attribute_Definition: Use for medicine by Man (H) or animal (A)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: MEDHA
Attribute_Definition: Use for medicine by Man (H) or animal (A)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: MEDMAL
Attribute_Definition: Disease being used to treat
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: FOODUSE
Attribute_Definition: Use of plant species for food (Yes or No)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: FOODPAR
Attribute_Definition: Plant part being used for food (see MEDPART
for codes)
Attribute_Definition_Source: Ayantunde A. Augustine

Attribute:
Attribute_Label: FEEDUSE
Attribute_Definition: Use of plant species as feed for animal
(Yes or No)

Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: FEEDPAR
 Attribute_Definition: - Plant part being used as feed (codes the same as MEDPART)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: FEEDPAL
 Attribute_Definition: Palatability of the plant species (Refuse by animals = 1; Consume by the animals when there is nothing to eat = 2; Generally eaten by the animals = 3; Highly preferred by the animals = 4)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: FEEDANI
 Attribute_Definition: Animal species that consume the plant (Cattle = B; Sheep = M; Goat = C; Donkey = A; Horse = E; Camel = H; Poultry = V; All species = T)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: CONSUSE
 Attribute_Definition: Use of plant species for construction (Yes or No)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: CONSPAR
 Attribute_Definition: Plant part being used for construction (codes the same as MEDPART)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: COMBUSE
 Attribute_Definition: Use of plant species as fuel wood (Yes or No)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: COMBPAR
 Attribute_Definition: Plant part being used for household cooking (codes the same as MEDPART)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: TIMBUSE
 Attribute_Definition: Use of plant species for timber (Yes or No)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: TIMBPAR
 Attribute_Definition: Part being used as timber (codes the same as MEDPART)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: OTHEUSE
 Attribute_Definition: Usage of plant species for other purpose than mentioned above (Yes or No)
 Attribute_Definition_Source: Ayantunde A. Augustine
 Attribute:
 Attribute_Label: OTHEPAR
 Attribute_Definition: Plant part being used (codes the same as MEDPART)

Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: HABITAT
Attribute_Definition: Habitat where the plant is normally found (D: Sand dunes; M: Marshes or waterlogged area; U: Understorey; P: Plateau; V: Valley; A: Around the village; T: Everywhere)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: SOILTYP
Attribute_Definition: Soil type where the plant species is normally found (S: Sandy soil; C: Clay soil; L: Loamy soil; T: Everywhere)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: SOLEFF
Attribute_Definition: Effect of the plant species on soil fertility (Positive = P; Negative = M; Neutral = E)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: TOXIC
Attribute_Definition: Toxicity of the plant species to man or animal (Not toxic = N; Toxic to animal = A; Toxic to man = H; Toxic to both man and animal = E)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: POPPRE
Attribute_Definition: Present population of the plant species (A: Abundant; B: Moderately available; C: Rare; D: Not available)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: POPPAST
Attribute_Definition: Past population of the plant species compared to the present population (Increase = A; Decrease = D; No change = N; Disappeared = I)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: TOLEDRO
Attribute_Definition: Tolerance of the plant species to drought (A: Not tolerant; B: Marginally tolerant; C: Moderately tolerant; H: Highly tolerant)
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: MARKSTA
Attribute_Definition: Market value of the plant species (1. Readily marketable (that is there is a ready market for it); 2. Seasonally marketable (there is a season when it is marketable))
Attribute_Definition_Source: Ayantunde A. Augustine
Attribute:
Attribute_Label: MARKPAR
Attribute_Definition: Plant part being sold in the market (codes the same as MEDPART)
Attribute_Definition_Source: Ayantunde A. Augustine
Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Ayantunde A. Augustine

Contact_Organization: ILRI/ICRISAT
Contact_Position: Animal Scientist
Contact_Address:
Address_Type: mailing and physical
Address: BP: 12404, Niamey
City: Niamey
Country: Niger
Contact_Voice_Telephone: +227 20722529
Contact_Facsimile_Telephone: 20752804
Contact_Electronic_Mail_Address: a.a.ayantunde@cgiar.org
Resource_Description: Ethno-botanical survey
Distribution_Liability: Restricted data.
Metadata_Reference_Information:
Metadata_Date: 20070115
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: AMADOU M.Laouali
Contact_Organization: ICRISATSC
Contact_Address:
Address_Type: mailing and physical
Address: BP: 12404, Niamey
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Facsimile_Telephone: 0022720734329
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org

Data Set Number 14: Exhaustive land tenure map accompanied by household survey

Identification_Information:

Citation:

Citation_Information:

Originator: Pierre Hiernaux

Publication_Date: 1996

Title: Exhaustive land tenure map accompanied by household survey

Description:

Abstract: The extensive farm database was developed between 1994 and 2000 in the framework of a research project on crop-livestock interactions in semi-arid zones of West

Africa, by scientists from the International Livestock Research Institute (ILRI) in collaboration with the National Research Institute of Agriculture in Niger (INRAN)

and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

That database included information on the composition and activities of

households on farm assets, land rights and management, livestock owned and managed, and equipment, documented for 542 farms

from the three neighbouring sites (Powell et al., 1996; Hiernaux et al., 1998a,b;

Turner and Hiernaux, 2002). The dataset also includes spatial information on land tenure

Purpose: Household characterization and typology and tenure for range of integrated studies

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 1996

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Keywords:

Theme:

Theme_Keyword_Thesaurus: GCMD

Theme_Keyword: EARTH SCIENCE > Human Dimensions > Land Use/Land Cover > Land Tenure

Theme_Keyword: EARTH SCIENCE > Human Dimensions > Land Use/Land Cover > Land Management

Theme_Keyword: household survey

Place:

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Access_Constraints: Restricted. Precise request needed

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Centre d'Etudes Spatiales de la Biosphère, CESBIO

Contact_Person: PIERRE HIERNAUX
Contact_Position: Scientist
Contact_Address:
Address_Type: mailing and physical
Address: 18 avenue Edouard Belin, bpi 2801,
F-31041 Toulouse, cedex 4

City: TOULOUSE
Country: FRANCE
Contact_Voice_Telephone: + 33 (0) 5 61 55 85 37; + 33 (0) 5 61
55 76 24
Contact_Electronic_Mail_Address: pierre.hiernaut@cesbio.cnes.fr;
pierre.hiernaut@wanadoo.fr

Data Set Number 150: Answers of individual interviewed farmers to selections of the questions: Fakara, Niger 2004-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Ryoichi Matsunaga

Publication_Date: 20061201

Publication_Time: Unknown

Title: Answers of individual interviewed farmers to selections of the questions: Fakara, Niger 2004-2005

Edition: 1st Version

Geospatial_Data_Presentation_Form: tabular digital data

Publication_Information:

Publication_Place: Japan

Publisher: Japanese Society for Tropical Agriculture

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\r.matsunaga\answers of individual interviewed farmers to selections of the questions\Answers of individual interviewed farmers to selections of the questions.dbf

Description:

Abstract: Cowpea is mostly planted as an intercrop between pearl millet (*Pennisetum glaucum*) rows around two weeks after planting of millet and weed control was the most important practice during the cropping season. The farmers prefer dual purpose cowpea varieties with desired proportion of grain and fodder yields rather than mainly grain type and fodder type varieties. About two third of the farmers purchase cowpea seeds at the time of planting from the local market, due to strong demand of domestic consumption, sales in the local market for cash after the harvest and poor harvest of cowpea grains.

Purpose: collect latest information about cropping systems, cultural practices, production constraints and farmers' preference in three typical villages in the Sahel.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Jan.8, 2004

Beginning_Time: unknown

Ending_Date: March 31 2005

Ending_Time: unknown

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954
 G-Ring_Longitude: 2.84407
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
 Theme_Keyword: cowpea
 Theme_Keyword: Vigna unguiculata
 Theme_Keyword: production
 Theme_Keyword: on farm survey

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: Fakara
 Place_Keyword: Sahel
 Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2004
 Temporal_Keyword: 2005

Access_Constraints: Only the case authorized by originator
 Use_Constraints: Only the case authorized by originator
 Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Ryoichi Matsunaga
 Contact_Position: Senior Researcher
 Contact_Address:
 Address_Type: mailing and physical
 City: Tsukuba
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6352
 Contact_Electronic_Mail_Address:
 ryoichi_matsunaga@jircas.affrc.go.jp
 Hours_of_Service: 9:00am - 18:00pm
 Contact_Instructions: Prefer to contact by mailing address

Browse_Graphic:

Browse_Graphic_File_Name: non
 Data_Set_Credit: Soja Amadou, ICRISAT-Niamey
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: About 15-16% of households (57 households) in the three villages were interviewed

Quantitative_Attribute_Accuracy_Assessment:

Attribute_Accuracy_Value: Number of interviewed farmers
 Attribute_Accuracy_Explanation:
 Around twenty farmers in each three villages (Bani Zoumbou, Kodey, and Tchigo Tegui).
 The total number of households was 145, 135 and 100 in Bani Zoumbou, Kodey, and Tchigo Tegui, respectively.

Lineage:

Process_Step:

Process_Description: interview to the cowpea farmers in three villages of Fakara area and input the data into spreadsheet of Excel and processed them by Excel

Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Answers of individual interviewed farmers to selections of the questions

Attribute:

Attribute_Label: OID

Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute_Label: C1

Attribute_Definition: Number of farmer

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C2

Attribute_Definition: Name of Farmer

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C3

Attribute_Definition: Age of farmer

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C4

Attribute_Definition: Name of village

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C5

Attribute_Definition: Longitude of the village

Attribute_Definition_Source: None

Attribute:

Attribute_Label: C6

Attribute_Definition: Latitude of village

Attribute_Definition_Source: None

Attribute:

Attribute_Label: C7

Attribute_Definition: Mono or Intercropping system with Millet

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C8

Attribute_Definition: Mono or Intercropping system with Sorghum

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C9

Attribute_Definition: Mono or Intercropping system with Cowpea

Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C10
Attribute_Definition: Mono or Intercropping system with Groudnut
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C11
Attribute_Definition: Mono or Intercropping system with Banbara
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C12
Attribute_Definition: Mono or Intercropping system with Sesami
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C13
Attribute_Definition: Mono or Intercropping system with Hiviscus
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C14

Attribute:
Attribute_Label: C15
Attribute_Definition: Meanings of rotation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C16
Attribute_Definition: Rotation between Cereal/Leg
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C17
Attribute_Definition: Order of Rotation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C18
Attribute_Definition: Fallow period (year)
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C19
Attribute_Definition: Reasons for the cultivation by mention
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C20
Attribute_Definition: Reasons for the cultivation by Grain
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C21
Attribute_Definition: Reasons for the cultivation by Vegetable
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C22
Attribute_Definition: Reasons for the cultivation by Soil
fertility
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C23
Attribute_Definition: Others raisons
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C24

Attribute_Definition: Reasons for the cultivation by fodder
 importance
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Reasons for the cultivation by Grain
 importance
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C26
 Attribute_Definition: Reasons for the cultivation by Vegetable
 importance
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C27
 Attribute_Definition: Reasons for the cultivation by Soil
 fertility importance
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C28
 Attribute_Definition: Reasons for the cultivation by Striger
 importance
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C29
 Attribute_Definition: Utilization of cowpea: Fodder Sale or Home
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C30
 Attribute_Definition: Utilization of cowpea : Fodder Sale or Home
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C31
 Attribute_Definition: Price of Fodder Sale
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C32
 Attribute_Definition: Utilization of cowpea: Grain Sale or Home
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C33
 Attribute_Definition: Utilization of cowpea: Grain Sale or Home
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C34
 Attribute_Definition: Price of Grain Sale
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C35
 Attribute_Definition: Utilization of cowpea: Vegetable Sale or
 Home
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C36
 Attribute_Definition: Utilization of cowpea: Vegetable Sale or
 Home
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C37
Attribute_Definition: Price of Vegetable Sale
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C38
Attribute_Definition: importance of Cowpea in Soil fertility
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C39
Attribute_Definition: Local name of Cowpea variety
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C40
Attribute_Definition: Local name of cowpea improved variety
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C41
Attribute_Definition: Local name of cowpea variety
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C42
Attribute_Definition: How to get seeds? by Market?
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C43
Attribute_Definition: How to get seeds? By Self?
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C44
Attribute_Definition: How to get seeds? By Others/farmers?
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C45
Attribute_Definition: How to get seeds? by organization?
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C46
Attribute_Definition: How to get seeds? Others
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C47
Attribute_Definition: Sowing date: Monocrop 03
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C48

Attribute:
Attribute_Label: C49
Attribute_Definition: Sowing Monocrop 02
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C50

Attribute:
Attribute_Label: C51
Attribute_Definition: Intercropping date of Millet 03
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:

Attribute_Label: C52
 Attribute_Definition: Intercropping date of Millet 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C53
 Attribute_Definition: Intercropping date of Millet 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C54
 Attribute:
 Attribute_Label: C55
 Attribute_Definition: Intercropping date of Sorghum 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C56
 Attribute_Definition: Intercropping date of Sorghum 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C57
 Attribute_Definition: Intercropping date of Sorghum 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C58
 Attribute:
 Attribute_Label: C59
 Attribute_Definition: Intercropping date of Cowpea 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C60
 Attribute_Definition: Intercropping date of Sorghum 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C61
 Attribute_Definition: Intercropping date of Sorghum 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C62
 Attribute:
 Attribute_Label: C63
 Attribute_Definition: Intercropping date of Hibiscus 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C64
 Attribute_Definition: Intercropping date of Hibiscus 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C65
 Attribute_Definition: Intercropping date of Hibiscus 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C66
 Attribute:
 Attribute_Label: C67
 Attribute_Definition: Intercropping date of Groundnut 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C68

Attribute:
Attribute_Label: C69
Attribute_Definition: Intercropping date of Groundnut 02
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C70

Attribute:
Attribute_Label: C71
Attribute_Definition: Amount of seeds in Monocropping
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C72
Attribute_Definition: Amount of seeds in Millet Intercropping
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C73
Attribute_Definition: Amount of seeds in Sorghum Intercropping
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C74
Attribute_Definition: Amount of seeds in Cowpea Intercropping
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C75
Attribute_Definition: Amount of seeds in Hibiscus Intercropping
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C76
Attribute_Definition: Amount of seeds in Others crops

Intercropping
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C77
Attribute_Definition: Planting patterns for Millet
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C78
Attribute_Definition: Planting patterns for Cowpea
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C79
Attribute_Definition: Planting patterns for Hibiscus
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C80
Attribute_Definition: Planting patterns for Sorghum
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C81
Attribute_Definition: Planting patterns for others crops
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C82
Attribute_Definition: Harvesting date for Green pods
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C83

Attribute_Definition: Harvesting time for green pods
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C84
 Attribute_Definition: Harvesting date for Grains
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C85
 Attribute_Definition: Harvesting time for Grains
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C86
 Attribute_Definition: Harvesting time for Grains
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C87
 Attribute_Definition: Harvesting date for Fodder
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C88
 Attribute_Definition: Harvesting time for Fodder
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C89
 Attribute_Definition: Utilization of Chemical Fertilization
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C90
 Attribute_Definition: Quantity and time of Chemical Fertilization
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C91
 Attribute_Definition: Utilization of Manure
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C92
 Attribute_Definition: Quantity of Manure used
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C93
 Attribute_Definition: Corraling
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C94
 Attribute_Definition: years
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C95
 Attribute_Definition: Weeding practices
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C96
 Attribute_Definition: First labor x day
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C97
 Attribute_Definition: second labor x day

Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C98
 Attribute_Definition: Fungicides used
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C99
 Attribute_Definition: Quantity of fungicide used
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C100
 Attribute_Definition: Pesticide used
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C101
 Attribute_Definition: Quantity of pesticide
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C102
 Attribute_Definition: Constrains in mention: Diseases
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C103
 Attribute_Definition: Constrains in mention: Pest
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C104
 Attribute_Definition: Constrains in mention: Drought
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C105
 Attribute_Definition: Constrains in mention: Standing
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C106
 Attribute_Definition: Constrains in mention: Soil fertility
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C107
 Attribute_Definition: Constrains in mention: others1
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C108
 Attribute_Definition: Constrains in mention: others2
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C109
 Attribute_Definition: Constrains in mention: others 3
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C110
 Attribute_Definition: Constrains in importance: Disease
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C111
 Attribute_Definition: Constrains in importance: Pest
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C112
Attribute_Definition: Constrains in importance: drought
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C113
Attribute_Definition: Constrains in importance: Standing
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C114
Attribute_Definition: Constrains in importance: Soil fertility
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C115
Attribute_Definition: Constrains in importance: others1
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C116
Attribute_Definition: Constrains in importance: others2
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C117
Attribute_Definition: Constrains in importance: others3
Attribute_Definition_Source: Ryoichi Matsunaga

Overview_Description:
Entity_and_Attribute_Overview:
The data set contains several attributes that are summarized in the following sections:

- 0. Answering farmer,
- a. Mono or Intercropping system,
- b. Meanings of rotation,
- c. Fallow period
- d1. Reasons for the cultivation by mention between Fodder, Grain Vegetable or Soil Fertility
- d2. Reasons for the cultivation by importance
- e. Utilization of cowpea
- f. Soil fertility
- g. Name of variety
- h. Questions about How to get seeds
- i. Sowing date, Intercropping date,
- j. Amount of seeds and Intercropping
- k. Planting patterns
- l. Harvesting date
- m. Questions about practices used,
- n1. Constrains in mention,
- n2. Constrains in importance concerning diseases, drought, soil fertility, and the utilization of pesticides and fertilizers.

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: JIRCAS
Contact_Address:
Address_Type: mailing and physical
Address: Japan International Research Center for Agricultural Sciences
City: Ohwashi, Tsukuba, Ibaraki,

Postal_Code: 305 8686
Country: JAPAN
Contact_Voice_Telephone: +81 29 838 6330
Contact_Facsimile_Telephone: +81 29 838 6316
Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Resource_Description: Downloadable Data
Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.141
Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: PB: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 151: Answers of individual interviewed farmers to the questions about cropping patternsystem: Fakara, Niger 2004-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Ryoichi Matsunaga

Publication_Date: 20061201

Publication_Time: Unknown

Title: Answers of individual interviewed farmers to the questions about cropping patternsystem: Fakara, Niger 2004-2005

Edition: 1st Version

Geospatial_Data_Presentation_Form: tabular digital data

Publication_Information:

Publication_Place: Japan

Publisher: Japanese Society for Tropical Agriculture

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\r.matsunaga\answers of individual interviewed farmers to the questions about cropping patternsystem\Answers of individual interviewed farmers to the questions about cropping patternsystem.dbf

Description:

Abstract: Cowpea is mostly planted as an intercrop between pearl millet (*Pennisetum glaucum*) rows around two weeks after planting of millet and weed control was the most important practice during the cropping season. The farmers prefer dual purpose cowpea varieties with desired proportion of grain and fodder yields rather than mainly grain type and fodder type varieties. About two third of the farmers purchase cowpea seeds at the time of planting from the local market, due to strong demand of domestic consumption, sales in the local market for cash after the harvest and poor harvest of cowpea grains.

Purpose: collect latest information about cropping systems, cultural practices, production constraints and farmers' preference in three typical villages in the Sahel.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Jan.8, 2004

Beginning_Time: unknown

Ending_Date: March 31 2005

Ending_Time: unknown

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954
G-Ring_Longitude: 2.84407
G-Ring_Point:
G-Ring_Latitude: 13.50950
G-Ring_Longitude: 2.77607

Keywords:

Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: cowpea
Theme_Keyword: Vigna unguiculata
Theme_Keyword: production
Theme_Keyword: on farm survey

Place:
Place_Keyword_Thesaurus: None
Place_Keyword: Fakara
Place_Keyword: Sahel
Place_Keyword: West Africa

Temporal:
Temporal_Keyword_Thesaurus: none
Temporal_Keyword: 2004
Temporal_Keyword: 2005

Access_Constraints: Only the case authorized by originator
Use_Constraints: Only the case authorized by originator
Point_of_Contact:

Contact_Information:
Contact_Organization_Primary:
Contact_Organization: JIRCAS
Contact_Person: Ryoichi Matsunaga
Contact_Position: Senior Researcher
Contact_Address:
Address_Type: mailing and physical
City: Tsukuba
Postal_Code: 305-8686
Country: Japan
Contact_Voice_Telephone: +81-29-838-6352
Contact_Electronic_Mail_Address:
ryoichi_matsunaga@jircas.affrc.go.jp
Hours_of_Service: 9:00am - 18:00pm
Contact_Instructions: Prefer to contact by mailing address
Data_Set_Credit: Soja Amadou, ICRISAT-Niamey
Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
9.0.0.535

Cross_Reference:
Citation_Information:
Originator: Unknown

Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report: About 15-16% of households (57 households) in the three villages were interviewed
Quantitative_Attribute_Accuracy_Assessment:
Attribute_Accuracy_Value: Number of interviewed farmers
Attribute_Accuracy_Explanation:
Around twenty farmers in each three villages (Bani Zoumbou, Kodey, and Tchigo Tegui).
The total number of households was 145, 135 and 100 in Bani Zoumbou, Kodey, and Tchigo Tegui, respectively.

Lineage:

Process_Step:
 Process_Description: Interview to the cowpea farmers in three villages of Fakara area and input the data into spreadsheet of Excel and processed them by Excel
 Process_Date: Unknown
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Answers of individual interviewed farmers to the questions about cropping patternsystem
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: Number of interviewed farmers
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Mono or Intercropping system in Millet field
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Mono or Intercropping system in Cowpea field
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Mono or Intercropping system in Groudnut field
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Mono or Intercropping system in Banbara field
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Planting date of Intercropping of Millet 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C11
 Attribute_Definition: Planting date of Intercropping of Cowpea 03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C12

Attribute_Definition: Difference of planting date between
 millet03 and cowpea03
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C14
 Attribute_Definition: Planting date of Intercropping of millet 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Planting date of Intercropping cowpea 02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Difference of planting date between
 millet02 and cowpea02
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C17
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Planting pattern: number of Cowpea rows
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: Planting pattern: number of Millet rows
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C20
 Attribute:
 Attribute_Label: C21
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: Harvesting date of Green pods
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: Harvesting date of Green pods: Duration
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: Harvesting date of Grains
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Harvesting date of Grains: Duration
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C26
 Attribute_Definition: Harvesting date of Fodder
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C27
 Attribute_Definition: Harvesting date of Fodder:Duration
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C28
 Attribute:

Attribute_Label: C29
 Attribute_Definition: Practices about Chemical fertilization
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C30
 Attribute:
 Attribute_Label: C31
 Attribute_Definition: Practices about Manure fertilization
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C32
 Attribute_Definition: Practices about Corraling
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C33
 Attribute_Definition: Practices about Weeding
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C34
 Attribute_Definition: Practices about Fungicide
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C35
 Attribute_Definition: Practices about Pesticide
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: N36
 Overview_Description:
 Entity_and_Attribute_Overview:
 The data set contains some attributes which are sammarizing in the following sections:
 a. Mono or Intercropping system concerning Millet, Cowpea, Groundnut, Banbara,
 b. Planting date of Intercropping system
 c. Planting pattern
 d. Harvesting date
 e. Practices: Informations about input utilization like Manure, Corraling, Weeding, Fungicide and Pesticide
 Entity_and_Attribute_Detail_Citation:
 The number of available answers differ according to the requested informations:
 - For Mono or intercropping systems: The interview was done on 57 farmers among which 55 farmers gave available answers: 2 farmers for monocropping and 53 farmers for intercropping (17 farmers for millet and 36 farmers for millet/Hiv)
 - For Planting date of Intercropping: 57 farmers among which 54 gave available answer (17 June and 30 June for Millet 03 and Cowpea 03 respectively).
 Always for the planting date we have 49 available answer on 57 farmers : Millet 02 and Cowpea 02 were planted in 13 June and 27 June respectively
 - Planting pattern: 56 available answers in a total of 57 farmers:
 Mil rows: 2.4;
 Cowpea rows: 1
 - Harvesting date; 49 available answers:
 Green pods: 65.5, 4 Sept;

Grains : 94.4, 2 Oct;
 Fodder: 95.4, 3 Oct;
 - Practices: 57 available answer :
 Chemical F: 13 or 23%;
 Manure: 40 or 70%;
 Corralling: 8 or 14%;
 Weeding: 56 or 98%;
 Fongicide: 0 or 0%;
 Pesticide: 0 or 0%

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences

City: Ohwashi, Tsukuba, Ibaraki,

Postal_Code: 305 8686

Country: JAPAN

Contact_Voice_Telephone: +81 29 838 6330

Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Resource_Description: Downloadable Data

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: dBase

Format_Version_Number: 4

Transfer_Size: 0.034

Metadata_Reference_Information:

Metadata_Date: 20070117

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISATSC

Contact_Person: AMADOU M.Laouali

Contact_Position: Consultant

Contact_Address:

Address_Type: mailing and physical address

City: Niamey

Country: Niger

Contact_Voice_Telephone: 0022720722529

Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org

Hours_of_Service: 8h00am - 16h00pm z+1

Contact_Instructions: email contact

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: Restricted

Metadata_Use_Constraints: Restricted

Metadata_Security_Information:

Metadata_Security_Classification: Unclassified

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

Data Set Number 152: Answers of individual interviewed farmers to the questions about the reasons for cowpea cultivation

Identification_Information:

Citation:

Citation_Information:

Originator: Ryoichi Matsunaga
Publication_Date: 1 Dec., 2006
Publication_Time: Unknown
Title: Answers of individual interviewed farmers to the questions about the reasons for cowpea cultivation
Edition: 1st Version
Geospatial_Data_Presentation_Form: tabular digital data
Publication_Information:
Publication_Place: Japan
Publisher: Japanese Society for Tropical Agriculture
Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\r.matsunaga\answers of individual interviewed farmers to the questions about the reasons for cowpea cultivation\Answers of individual interviewed farmers to the questions about the reasons for cowpea cultivation.dbf

Description:

Abstract: Cowpea is mostly planted as an intercrop between pearl millet (*Pennisetum glaucum*) rows around two weeks after planting of millet and weed control was the most important practice during the cropping season. The farmers prefer dual purpose cowpea varieties with desired proportion of grain and fodder yields rather than mainly grain type and fodder type varieties. About two third of the farmers purchase cowpea seeds at the time of planting from the local market, due to strong demand of domestic consumption, sales in the local market for cash after the harvest and poor harvest of cowpea grains.

Purpose: collect latest information about cropping systems, cultural practices, production constraints and farmers' preference in three typical villages in the Sahel.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 20040108

Ending_Date: 20050331

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607

Keywords:

Theme:

- Theme_Keyword_Thesaurus: None
- Theme_Keyword: cowpea
- Theme_Keyword: Vigna unguiculata
- Theme_Keyword: production
- Theme_Keyword: on farm survey

Place:

- Place_Keyword_Thesaurus: None
- Place_Keyword: Fakara
- Place_Keyword: Sahel
- Place_Keyword: West Africa

Temporal:

- Temporal_Keyword_Thesaurus: none
- Temporal_Keyword: 2004
- Temporal_Keyword: 2005

Access_Constraints: Only the case authorized by originator

Use_Constraints: Only the case authorized by originator

Point_of_Contact:

Contact_Information:

- Contact_Organization_Primary:
- Contact_Organization: JIRCAS
- Contact_Person: Ryoichi Matsunaga
- Contact_Position: Senior Researcher
- Contact_Address:
- Address_Type: mailing and physical
- City: Tsukuba
- Postal_Code: 305-8686
- Country: Japan
- Contact_Voice_Telephone: +81-29-838-6352
- Contact_Electronic_Mail_Address:

ryoichi_matsunaga@jircas.affrc.go.jp

- Hours_of_Service: 9:00am - 18:00pm
- Contact_Instructions: Prefer to contact by mailing address

Data_Set_Credit: Soja Amadou, ICRISAT-Niamey

Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog 9.0.0.535

Data_Quality_Information:

Attribute_Accuracy:

- Attribute_Accuracy_Report: About 15-16% of households (57 households) in the three villages were interviewed
- Quantitative_Attribute_Accuracy_Assessment:
- Attribute_Accuracy_Value: Number of interviewed farmers
- Attribute_Accuracy_Explanation: Around twenty farmers in each three villages (Bani Zoumbou, Kodey, and Tchigo Tegui).

The total number of households was 145, 135 and 100 in Bani Zoumbou, Kodey, and Tchigo Tegui, respectively.

Lineage:

Process_Step:

- Process_Description: interview to the cowpea farmers in three villages of Fakara area and input the data into spreadsheet of Excel and processed them by Excel
- Process_Date: Unknown

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Answers of individual interviewed farmers to
 the questions about the reasons for cowpea cultivation
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C0
 Attribute_Definition: Household number
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: Importance of Fodder
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Importance of Grain
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Importance of Vegetable
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Importance of Soil fertility
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Importance of Striga
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C6
 Attribute_Definition: Utilization of cowpea: Fodder sale
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: Utilization of cowpea: Grain sale
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Utilization of cowpea: Vegetable sale
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: Effects of Cowpea soil fertility
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C10
Attribute_Definition: Source of seeds: Market
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C11
Attribute_Definition: Source of seeds: Self
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C12
Attribute_Definition: Source of seeds: Others or farmers
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C13
Attribute_Definition: Source of seeds: Organization
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C14
Attribute_Definition: Pest as constrains of Cowpea cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C15
Attribute_Definition: Diseases as constrains of cowpea
cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C16
Attribute_Definition: Drought as constrains of cowpea cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C17
Attribute_Definition: Standing as constrains of cowpea
cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C18
Attribute_Definition: Soil fertility as constrains of cowpea
cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C19
Attribute_Definition: Heavy Rain as constrains of cowpea
cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C20
Attribute_Definition: Wind as constrains of cowpea cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
Attribute_Label: C21
Attribute_Definition: Sowing as constrains of cowpea cultivation
Attribute_Definition_Source: Ryoichi Matsunaga

Overview_Description:
Entity_and_Attribute_Overview:
The data set conatains attributes which are grouped by the
following sections :

- a. Importance

- b. Utilization of Cowpea
- c. Soil fertility
- d. Questions on possibilities (Market, Self, others farmers or Organization) to farmers to get seeds
- e. Constrains in importance concerning Pest, Diseases, Drought, Standing, Soil fertility, Heavy Rain, Wind and Sowing.

Data set overview:

a. Importance				
	Fodder	Grain	Vegetable	Soil fertility
Striga				
	2	1	4	3
	3	1	2	4
	2	1	4	3
	2	1	4	3
	2	1	3	4
5				
	2	1	5	4
3				
	3	1	4	2
5				

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT SAHELIAN CENTER

Contact_Address:

Address_Type: mailing and physical

Address: PB: 12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: 00227722626

Contact_Facsimile_Telephone: 0022720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Hours_of_Service: 8h00am - 16h00pm z+1

Resource_Description: Downloadable Data

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 0.014

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural

Sciences

City: Ohwashi, Tsukuba, Ibaraki

Postal_Code: 305 8686

Country: JAPAN

Contact_Voice_Telephone: +81 29 838 6330

Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Resource_Description: Downloadable Data

Distribution_Liability: Data are restricted. Users who need the data should explore the metadata file and should contact JIRCAS via his physical or mailing address

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 0.014

Metadata_Reference_Information:

Metadata_Date: 20061221

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISATSC

Contact_Person: AMADOU M.Laouali

Contact_Position: Consultant

Contact_Address:

Address_Type: mailing and physical address

Address: BP: 12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: 0022720722529

Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org

Hours_of_Service: 8h00am - 16h00pm z+1

Contact_Instructions: Email contact

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial

Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: Restricted

Metadata_Security_Information:

Metadata_Security_Classification: Unclassified

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

Data Set Number 153 : Narrative answers of individual interviewed farmers to the questions: Fakara, Niger 2004-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Ryoichi Matsunaga

Publication_Date: 20061201

Publication_Time: Unknown

Title: Narrative answers of individual interviewed farmers to the questions: Fakara, Niger 2004-2005

Edition: 1st Version

Geospatial_Data_Presentation_Form: tabular digital data

Publication_Information:

Publication_Place: Japan

Publisher: Japanese Society for Tropical Agriculture

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\r.matsunaga\narrative answers of individual interviewed farmers to the questions\narrative answers of individual interviewed farmers to the questions.dbf

Description:

Abstract: Cowpea is mostly planted as an intercrop between pearl millet (*Pennisetum glaucum*) rows around two weeks after planting of millet and weed control was the most important practice during the cropping season. The farmers prefer dual purpose cowpea varieties with desired proportion of grain and fodder yields rather than mainly grain type and fodder type varieties. About two third of the farmers purchase cowpea seeds at the time of planting from the local market, due to strong demand of domestic consumption, sales in the local market for cash after the harvest and poor harvest of cowpea grains.

Purpose: collect latest information about cropping systems, cultural practices, production constraints and farmers' preference in three typical villages in the Sahel.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Jan.8, 2004

Ending_Date: March 31 2005

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

G-Ring_Point:
 G-Ring_Latitude: 13.50219
 G-Ring_Longitude: 2.63092

Keywords:

Theme:
 Theme_Keyword_Thesaurus: None
 Theme_Keyword: cowpea
 Theme_Keyword: Vigna unguiculata
 Theme_Keyword: production
 Theme_Keyword: on farm survey

Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: West Africa
 Place_Keyword: Sahel
 Place_Keyword: Fakara

Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2004
 Temporal_Keyword: 2005

Access_Constraints: Only the case authorized by originator
 Use_Constraints: Only the case authorized by originator

Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Ryoichi Matsunaga
 Contact_Position: Senior Researcher
 Contact_Address:
 Address_Type: mailing and physical
 City: Tsukuba
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6352
 Contact_Electronic_Mail_Address:
 ryoichi_matsunaga@jircas.affrc.go.jp
 Hours_of_Service: 9:00am - 18:00pm
 Contact_Instructions: Prefer to contact by mailing address

Data_Set_Credit: Soja Amadou, ICRISAT-Niamey
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535

Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: About 15-16% of households (57 households) in the three villages were interviewed
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Value: Number of interviewed farmers
 Attribute_Accuracy_Explanation: Around twenty farmers in each three villages (Bani Zoumbou, Kodey, and Tchigo Tegui).
 The total number of households was 145, 135 and 100 in Bani Zoumbou, Kodey, and Tchigo Tegui, respectively.

Lineage:
 Process_Step:
 Process_Description: interview to the cowpea farmers in three villages of Fakara area and input the data into spreadsheet of Excel and processed them by Excel
 Process_Date: Unknown

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Narrative answers of individual interviewed farmers to the questions
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
 Attribute:
 Attribute_Label: VILLAGE
 Attribute_Definition: Name of village
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: X_COORD
 Attribute_Definition: Longitude of village
 Attribute_Definition_Source: None
 Attribute:
 Attribute_Label: Y_COORD
 Attribute_Definition: Latitude of village
 Attribute_Definition_Source: None
 Attribute:
 Attribute_Label: ROLE
 Attribute_Definition: Role of Cowpea
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: CONSTRAINS
 Attribute_Definition: difficulties of Cowpea cultivation
 Attribute_Definition_Source: Ryoichi Matsunaga
 Attribute:
 Attribute_Label: OTHERS
 Attribute_Definition: Others constrains
 Attribute_Definition_Source: Ryoichi Matsunaga
 Overview_Description:
 Entity_and_Attribute_Overview:
 The data set contains a narrative answers of individual interviewed farmers to the questions in the three villages.
 the table contains four attributes as follow:
 - Name of villages
 - Role of cowpea to soil fertility
 - Contrains and others problems due to Rains, wind, diseases
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT SAHELIAN CENTER
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404
 City: Niamey

Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Facsimile_Telephone: 00227207334329
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Resource_Description: Downloadable Data
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.024
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural
 Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
 Resource_Description: Downloadable Data
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Transfer_Size: 0.024
 Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 167: Household Characteristics in Fakara_Expense: Fakara Niger 2005

Identification_Information:

Citation:

Citation_Information:

Originator: Tahirou Abdoulaye

Originator: Keishi Hayashi

Publication_Date: Unpublished material

Title: Household Characteristics in Fakara_Expense: Fakara Niger

2005

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\DELL_LAT-D505\C\$\metadatabase

project\fakaradatabase\a.tahirou\household characteristics in fakara_expense\Household Characteristics in Fakara_Expense.dbf

Description:

Abstract: This database contains information on 120 households in 3 villages (Ko Dey, Tchigo Tegui and Banizoumbou) of the Fakara. Data collected include, household size (number of prson and crop fields), crop production, crop field management, income sources, income levels.....

Purpose: The main purpose of this survey was to better understand farmers production system in order to identify the suitability of technologies developed in the JIRCAS project.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: October, 2005

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Weekly

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Household

Theme_Keyword: Charaterization

Theme_Keyword: Expense

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: West Africa
 Access_Constraints: None
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Abdoulaye Tahirou
 Contact_Position: Economist
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404, Niamey
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 00227 20722626
 Contact_Electronic_Mail_Address: T.Abdoulaye@cgiaar.org
 Hours_of_Service: 8h00am-16h00pm z+1
 Contact_Instructions: Prefer contact by mail
 Data_Set_Credit:
 Amadou Sodja, JIRCAS
 Amadou Gouzaye, INRAN
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: 120 households were randomly
 drawn in 3 villages.
 Lineage:
 Process_Step:
 Process_Description:
 Interview about Household Characteristics in three villages of
 Fakara area,
 Input of the data into spreadsheet of Excel,
 Process of data by Excel.
 Process_Date: Not complete
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Tahirou Abdoulaye
 Contact_Organization: JIRCAS
 Contact_Position: JIRCAS
 Contact_Address:
 Address_Type: mailing
 Address: B. P. 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 227 722626
 Contact_Electronic_Mail_Address: t.abdoulaye@cgiaar.org
 Hours_of_Service: 8:00 am-5:30 pm
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Household Characteristics in Fakara_Expense
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: Name of farmer
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Number of farmer
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Code of village
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Longitude
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Latitude
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: C6
 Attribute_Definition: Expense at the last harvest
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: Product sale as source of capital
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Livestock sale as source of capital
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: Poultry sale as source of capital
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Trade and cottage industry as source of
 capital (%)
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C11

Attribute_Definition: exodus as source of capital (%)
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C12
 Attribute_Definition: borrow as source of capital (%)
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C13
 Attribute_Definition: Family and friend as source of capital (%)
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C14
 Attribute_Definition: Spiritual consultation as source of capital (%)
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Income from Crops
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Income from Livestock
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C17
 Attribute_Definition: Income from Others members
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Income from Families friends
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: others
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C20
 Attribute_Definition: Total Income
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C21
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: Investment in Livestock
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: Investment in Exodus
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: Investment in Gifts
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Investment in Marriage-baptism
 Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C26
Attribute_Definition: Investment in fertilizer
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C27
Attribute_Definition: Investment in Seeds
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C28
Attribute_Definition: Investment in Construction
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C29
Attribute_Definition: Investment in Clothing
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C30
Attribute_Definition: Investment in Weeding
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C31
Attribute_Definition: Investment in Taxes payment
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C32
Attribute_Definition: Manure from Owns animals
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C33
Attribute_Definition: Manure from nomads
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C34
Attribute_Definition: Manure from families friends Animals
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C35
Attribute_Definition: Manure from Buying (cost/unity)
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C36
Attribute_Definition: Manure from Others sources
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C37
Attribute_Definition: Utilisation of fertilizer
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C38
Attribute_Definition: Utilisation of fertilizer
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: C39
Attribute_Definition: Utilisation of fertilizer
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:

Attribute_Label: C40
 Attribute_Definition: Utilisation by the neighbour
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C41
 Attribute_Definition: performance appreciation
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C42
 Attribute_Definition: performance appreciation
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C43
 Attribute_Definition: performance appreciation
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C44
 Attribute_Definition: performance appreciation
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C45
 Attribute_Definition: Utilisation by the neighbour
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C46
 Attribute_Definition: Visit of test experiment
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C47
 Attribute_Definition: Visit of test experiment
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C48
 Attribute_Definition: Participate to a test experiment
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C49
 Attribute_Definition: Participate to a test experiment
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C50
 Attribute_Definition: Total quantity in kg
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C57
 Attribute_Definition: Is it the quantity needed
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C58
 Attribute_Definition: Is it the quantity needed
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C59
 Attribute_Definition: if no why
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C60

Attribute_Definition: Lack of means
 Attribute_Definition_Source: Tahirou Abdoulaye
 Overview_Description:
 Entity_and_Attribute_Overview:
 the dataset is one of four dataset about Household
 Characteristics in Fakara/Expense. This dataset contains informations
 concerning:

- Expense at the last harvest
- Source of capital
- Income draw form activities
- Investment of income last year
- Sources of manure
- Utilization of fertilizer
- Utilisation by the neighbour
- Visit a test experiment
- Participate to a test experiment

Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural
 Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: , 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
 Contact_Instructions: http://www.jircas.affrc.go.jp
 Resource_Description: Household Characteristics in Fakara_Expense
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dbf
 Format_Version_Number: 4
 Transfer_Size: 0.087
 Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP:12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time

Metadata_Access_Constraints: Restricted
Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 168: Household Characteristics in Fakara_Identification

Identification_Information:

Citation:

Citation_Information:

Originator: Tahirou Abdoulaye

Originator: Keishi Hayashi

Publication_Date: Unpublished material

Title: Household Characteristics in Fakara_identification:

Fakara, Niger 2005

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\a.tahirou\household characteristics in fakara_identification\Household Characteristics in Fakara_identificationv2.dbf

Description:

Abstract: This database contains information on 120 households in 3 villages (Ko Dey, Tchigo Tegui and Banizoumbou) of the Fakara. Data collected include, household size (number of prson and crop fields), crop production, crop field management, income sources, income levels.....

Purpose: The main purpose of this survey was to better understand farmers production system in order to identify the suitability of technologies developed in the JIRCAS project.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: October, 2005

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Weekly

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Household

Theme_Keyword: Charaterization

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: West Africa
 Access_Constraints: None
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Abdoulaye Tahirou
 Contact_Position: Economist
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404, Niamey
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 00227 20722626
 Contact_Electronic_Mail_Address: T.Abdoulaye@cgiar.org
 Hours_of_Service: 8h00am-16h00pm z+1
 Contact_Instructions: Prefer contact by mail
 Data_Set_Credit:
 Amadou Sodja, JIRCAS
 Amadou Gouzaye, INRAN
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: 120 households were randomly
 drawn in 3 villages.
 Lineage:
 Process_Step:
 Process_Description: Interview to 120 households in 3 villages
 (Ko Dey, Tchigo Tegui and Banizoumbou)of the Fakara area and input the
 data into spreadsheet of Excel and processed them by Excel
 Process_Date: Not complete
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Tahirou Abdoulaye
 Contact_Organization: JIRCAS
 Contact_Position: JIRCAS
 Contact_Address:
 Address_Type: mailing
 Address: B. P. 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 227 722626
 Contact_Electronic_Mail_Address: t.abdoulaye@cgiar.org
 Hours_of_Service: 8:00 am-5:30 pm
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Household Characteristics in
 Fakara_identificationv2
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: VILLAGE
 Attribute_Definition: Code of village
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: FARMER
 Attribute_Definition: Name of the farmer
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBER
 Attribute_Definition: code of the farmer
 Attribute_Definition_Source: ILRI
 Attribute:
 Attribute_Label: MILLET
 Attribute_Definition: Pourcentage of millet in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: SORGHUM
 Attribute_Definition: Pourcentage of sorghum in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: COWPEA
 Attribute_Definition: Pourcentage of cowpea in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: OSEILLE
 Attribute_Definition: Pourcentage of roselle in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: GROUNDNUT
 Attribute_Definition: Pourcentage of groundnut in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: BAMBARA
 Attribute_Definition: Pourcentage of bambara in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: CORN
 Attribute_Definition: Pourcentage of corn in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: SESAME
 Attribute_Definition: Pourcentage of sesame in the field
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:

Attribute_Label: FIELD
 Attribute_Definition: Local name of the field
 Attribute_Definition_Source: Farmers
 Attribute:
 Attribute_Label: TYPEOFSOIL
 Attribute_Definition: type of soil
 Attribute_Definition_Source: Farmers
 Attribute:
 Attribute_Label: EARLIERMIL
 Attribute_Definition: Number of earlier millet field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LATEMILLET
 Attribute_Definition: Number of late millet field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: COWPEA04
 Attribute_Definition: Number of cowpea field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: GROUDNUT04
 Attribute_Definition: Number of groundnut field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: SORGHUM04
 Attribute_Definition: Number of sorghum field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: OSEILLE04
 Attribute_Definition: Number of roselle field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: BAMBARA04
 Attribute_Definition: Number of bambara field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: CORN04
 Attribute_Definition: Number of corn field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: SESAME04
 Attribute_Definition: Number of sesame field in 2004
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBERCA
 Attribute_Definition: number of camel in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LIVESTOCKC
 Attribute_Definition: camel livestock system in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBERSH
 Attribute_Definition: number of sheep in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LIVESTOCKS

Attribute_Definition: sheep livestock system in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBERDB
 Attribute_Definition: number draft bulls in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LIVESTOCKD
 Attribute_Definition: draft bulls livestock system in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBERBO
 Attribute_Definition: number of bovines in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LIVESTOCKB
 Attribute_Definition: bovines livestock system in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBERCA_1
 Attribute_Definition: number of caprines in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LIVESTOC_1
 Attribute_Definition: caprines livestock sytem in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: NUMBERAS
 Attribute_Definition: number of asins in the household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: LIVESTOCKA
 Attribute_Definition: asins livestock system in he household
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: ANSWER
 Attribute_Definition: true or faulse answer
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: ANSWER_1
 Attribute_Definition: number of true or false answer
 Attribute_Definition_Source: Tahirou Abdoulaye
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address: Japan International Research Center for Agricultural Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Resource_Description: Household Characteristics in
Fakara_identification
Distribution_Liability: Data are under JIRCAS responsibility and
stored on ICRISAT server, however, users who need these data can write
to the originator of these data for acquisition.
Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.127
Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP:12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00 to 16h00 z+1
 Contact_Instructions: Prefer contact by Email
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 169: Household Characteristics in Fakara_Income

Identification_Information:

Citation:

Citation_Information:

Originator: Tahirou Abdoulaye

Originator: Keishi Hayashi

Publication_Date: Unpublished material

Title: Household Characteristics in Fakara_Income: Fakara, Niger
2005

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-
svr01\GeoNetwork\fakaradatabase\a.tahirou\Household Characteristics in
Fakara_Income.dbf

Description:

Abstract: This database contains information on 120 households in 3
villages (Ko Dey, Tchigo Tegui and Banizoumbou) of the Fakara. Data
collected include, household size (number of prson and crop fields),
crop production, crop field management, income sources, income
levels.....

Purpose: The main purpose of this survey was to better understand
farmers production system in order to identify the suitability of
technologies developed in the JIRCAS project.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: October, 2005

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Weekly

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Household

Theme_Keyword: Charaterization

Theme_Keyword: Income

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: West Africa
 Access_Constraints: None
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Abdoulaye Tahirou
 Contact_Position: Economist
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404, Niamey
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 00227 20722626
 Contact_Electronic_Mail_Address: T.Abdoulaye@cgiar.org
 Hours_of_Service: 8h00am-16h00pm z+1
 Contact_Instructions: Prefer contact by mail
 Data_Set_Credit:
 Amadou Sodja, JIRCAS
 Amadou Gouzaye, INRAN
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: 120 households were randomly
 drawn in 3 villages.
 Lineage:
 Process_Step:
 Process_Description:
 Interview about household income in three villages of Fakara
 area
 Input of the data into spreadsheet of Excel
 Process of data by Excel
 Process_Date: Not complete
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Tahirou Abdoulaye
 Contact_Organization: JIRCAS
 Contact_Position: JIRCAS
 Contact_Address:
 Address_Type: mailing
 Address: B. P. 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 227 722626
 Contact_Electronic_Mail_Address: t.abdoulaye@cgiar.org
 Hours_of_Service: 8:00 am-5:30 pm
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:

SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Household Characteristics in Fakara_Income
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: Number of farmer
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: code of Village
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Longitude
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Latitude
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Name of farmer
 Attribute_Definition_Source: Farmer
 Attribute:
 Attribute_Label: C6
 Attribute_Definition: Farmer code
 Attribute_Definition_Source: ILRI
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: Total Income
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Number of person by family
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: Income by person
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Production
 Attribute_Definition_Source: Tahirou Abdoulaye
 Attribute:
 Attribute_Label: C11
 Attribute_Definition: off-farm
 Attribute_Definition_Source: Tahirou Abdoulaye

Overview_Description:
 Entity_and_Attribute_Overview:
 The dataset contains informations about household income in
 Fakara. the following attributes were collected:
 Total incomes; Number of persons by families; Income by person;
 production and off-farm.
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural
 Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
 Contact_Instructions: http://www.jircas.affrc.go.jp
 Resource_Description: Household Characteristics in Fakara_Incomes
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.015
 Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP:12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: http://www.esri.com/metadata/esriprof80.html
 Profile_Name: ESRI Metadata Profile

Data Set Number 170: Household Characteristics in Fakara_Livestock

Identification_Information:

Citation:

Citation_Information:

Originator: Tahirou Abdoulaye
Originator: Keishi Hayashi
Publication_Date: Unpublished material
Title: Household Characteristics in Fakara_Livestock: Fakara,
Niger 2005
Geospatial_Data_Presentation_Form: tabular digital data
Online_Linkage: \\Isc-
svr01\GeoNetwork\fakaradatabase\a.tahirou\Household Characteristics in
Fakara_Livestock.dbf

Description:

Abstract: This database contains information on 120 households in 3
villages (Ko Dey, Tchigo Tegui and Banizoumbou) of the Fakara. Data
collected include, household size (number of prson and crop fields),
crop production, crop field management, income sources, income
levels.....

Purpose: The main purpose of this survey was to better understand
farmers production system in order to identify the suitability of
technologies developed in the JIRCAS project.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: October, 2005

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Weekly

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Household

Theme_Keyword: Charaterization

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Niger

Place_Keyword: Fakara
 Place_Keyword: West Africa
 Access_Constraints: None
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Abdoulaye Tahirou
 Contact_Position: Economist
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404, Niamey
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 00227 20722626
 Contact_Electronic_Mail_Address: T.Abdoulaye@cgiar.org
 Hours_of_Service: 8h00am-16h00pm z+1
 Contact_Instructions: Prefer contact by mail
 Data_Set_Credit:
 Amadou Sodja, JIRCAS
 Amadou Gouzaye, INRAN
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: 120 households were randomly
 drawn in 3 villages.
 Lineage:
 Process_Step:
 Process_Description:
 Interview about Livestock information by household in three
 villages of Fakara area,
 Input of the data into spreadsheet of Excel,
 Process of data by Excel.
 Process_Date: Not complete
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Tahirou Abdoulaye
 Contact_Organization: JIRCAS
 Contact_Position: JIRCAS
 Contact_Address:
 Address_Type: mailing
 Address: B. P. 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 227 722626
 Contact_Electronic_Mail_Address: t.abdoulaye@cgiar.org
 Hours_of_Service: 8:00 am-5:30 pm
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point
Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: Household Characteristics in Fakara_Livestock
Entity_Type_Definition: Number of Animal species by household
Attribute:
Attribute_Label: OID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that
are automatically generated.
Attribute:
Attribute_Label: NUMERO
Attribute_Definition: identification of household
Attribute_Definition_Source: Tahirou Abdoulaye
Attribute:
Attribute_Label: VILLAGE
Attribute_Definition: code of village
Attribute_Definition_Source: Tahirou Abdoulaye
Attribute:
Attribute_Label: X_COORD
Attribute_Definition: Longitude of village
Attribute_Definition_Source: none
Attribute:
Attribute_Label: Y_COORD
Attribute_Definition: Latitude of village
Attribute_Definition_Source: none
Attribute:
Attribute_Label: NAME
Attribute_Definition: Name of farmer
Attribute_Definition_Source: Farmer
Attribute:
Attribute_Label: CODE
Attribute_Definition: Household code
Attribute_Definition_Source: ILRI
Attribute:
Attribute_Label: CAMEL
Attribute_Definition: Number of Camel by household
Attribute_Definition_Source: Tahirou Abdoulaye
Attribute:
Attribute_Label: SHEEP
Attribute_Definition: Number of Ovines by household
Attribute_Definition_Source: Tahirou Abdoulaye
Attribute:
Attribute_Label: DRAFTBULL
Attribute_Definition: Number of Draftbull by household
Attribute_Definition_Source: Tahirou Abdoulaye
Attribute:
Attribute_Label: BOVINES
Attribute_Definition: Number of Bovine by household
Attribute_Definition_Source: Tahirou Abdoulaye
Attribute:
Attribute_Label: CAPRINES
Attribute_Definition: Number of Caprines by household
Attribute_Definition_Source: Tahirou Abdoulaye

Attribute:
Attribute_Label: ASININES
Attribute_Definition: Number of Asinnes by household
Attribute_Definition_Source: Tahirou Abdoulaye

Overview_Description:
Entity_and_Attribute_Overview:
The dataset contains livestock information by household.
Attributes:
Camel
Ovines
Draft Bulls
Bovines
Caprines
Asinines

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: JIRCAS
Contact_Address:
Address_Type: mailing and physical
Address: Japan International Research Center for Agricultural
Sciences (JIRCAS)
City: Ohwashi, Tsukuba, Ibaraki
Postal_Code: 305 8686
Country: JAPAN
Contact_Voice_Telephone: +81 29 838 6330
Contact_Facsimile_Telephone: +81 29 838 6316
Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Contact_Instructions: <http://www.jircas.affrc.go.jp>

Resource_Description: Household Characteristics in Fakara_Livestock
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: dBase
Format_Version_Number: 4
Transfer_Size: 0.016

Metadata_Reference_Information:
Metadata_Date: 20070117
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical address
Address: BP:12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722529
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Security_Information:

Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 171: Household Characteristics in Fakara_Number of persons

Identification_Information:

Citation:

Citation_Information:

Originator: Tahirou Abdoulaye

Originator: Keishi Hayashi

Publication_Date: Unpublished material

Title: Household Characteristics in Fakara_Number of persons:

Fakara, Niger 2005

Geospatial_Data_Presentation_Form: tabular digital data

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\a.tahirou\Household Characteristics in Fakara_Number of persons.dbf

Description:

Abstract: This database contains information on 120 households in 3 villages (Ko Dey, Tchigo Tegui and Banizoumbou) of the Fakara. Data collected include, household size (number of prson and crop fields), crop production, crop field management, income sources, income levels.....

Purpose: The main purpose of this survey was to better understand farmers production system in order to identify the suitability of technologies developed in the JIRCAS project.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: October, 2005

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Weekly

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Household

Theme_Keyword: Charaterization

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Niger

Place_Keyword: Fakara
 Place_Keyword: West Africa
 Access_Constraints: None
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Abdoulaye Tahirou
 Contact_Position: Economist
 Contact_Address:
 Address_Type: mailing and physical
 Address: BP: 12404, Niamey
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 00227 20722626
 Contact_Electronic_Mail_Address: T.Abdoulaye@cgiaar.org
 Hours_of_Service: 8h00am-16h00pm z+1
 Contact_Instructions: Prefer contact by mail
 Data_Set_Credit:
 Amadou Sodja, JIRCAS
 Amadou Gouzaye, INRAN
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Explanation: 120 households were randomly
 drawn in 3 villages.
 Lineage:
 Process_Step:
 Process_Description:
 Interview about the number and categories of persons by
 household in three villages of Fakara area,
 Input of the data into spreadsheet of Excel,
 Process of data by Excel.
 Process_Date: Not complete
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Tahirou Abdoulaye
 Contact_Organization: JIRCAS
 Contact_Position: JIRCAS
 Contact_Address:
 Address_Type: mailing
 Address: B. P. 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 227 722626
 Contact_Electronic_Mail_Address: t.abdoulaye@cgiaar.org
 Hours_of_Service: 8:00 am-5:30 pm
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:

```

SDTS_Point_and_Vector_Object_Type: Area point
Entity_and_Attribute_Information:
  Detailed_Description:
    Entity_Type:
      Entity_Type_Label: Household Characteristics in Fakara_Number of
persons
      Entity_Type_Definition: Number of person by household
      Entity_Type_Definition_Source: none
    Attribute:
      Attribute_Label: OID
      Attribute_Definition: Internal feature number.
      Attribute_Definition_Source: ESRI
      Attribute_Domain_Values:
        Unrepresentable_Domain: Sequential unique whole numbers that
are automatically generated.
    Attribute:
      Attribute_Label: C1
      Attribute_Definition: identification
      Attribute_Definition_Source: Tahirou Abdoulaye
    Attribute:
      Attribute_Label: C2
      Attribute_Definition: Name of farmer
      Attribute_Definition_Source: Farmer
    Attribute:
      Attribute_Label: C3
      Attribute_Definition: Farmer code
      Attribute_Definition_Source: ILRI
    Attribute:
      Attribute_Label: C4
      Attribute_Definition: Number of adult male by household
      Attribute_Definition_Source: Tahirou Abdoulaye
    Attribute:
      Attribute_Label: C5
      Attribute_Definition: Number of adult female by household
      Attribute_Definition_Source: Tahirou Abdoulaye
    Attribute:
      Attribute_Label: C6
      Attribute_Definition: Number of boys by household
      Attribute_Definition_Source: Tahirou Abdoulaye
    Attribute:
      Attribute_Label: C7
      Attribute_Definition: Number of girls by household
      Attribute_Definition_Source: Tahirou Abdoulaye
    Attribute:
      Attribute_Label: C8
      Attribute_Definition: Total number of person in the household
      Attribute_Definition_Source: Tahirou Abdoulaye
  Overview_Description:
    Entity_and_Attribute_Overview:
      The dataset contains the number and categories of persons by
household.

```

```

-----
-----
Dataset Overview:
Number of adult male          Number of adult female
Number of boys      Number of girls          Total

```

2	1		1
6		2	
3	5		3
12		1	
3	1		2
10		4	
2	1		1
8		3	
1	1		1
3			

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences (JIRCAS)

City: Ohwashi, Tsukuba, Ibaraki

Postal_Code: 305 8686

Country: JAPAN

Contact_Voice_Telephone: +81 29 838 6330

Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Contact_Instructions: http://www.jircas.affrc.go.jp

Resource_Description: Household Characteristics in Fakara_Number of person

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: dBase

Format_Version_Number: 4

Transfer_Size: 0.013

Metadata_Reference_Information:

Metadata_Date: 20070117

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISATSC

Contact_Person: AMADOU M.Laouali

Contact_Address:

Address_Type: mailing and physical address

Address: BP:12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: 0022720722529

Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: Restricted
Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 51: Household Risk Management

Identification_Information:

Citation:

Citation_Information:

Originator: Uru Tanaka

Originator: Tahirou Abdoulaye

Originator: : Keishi Hayashi

Title: Household Risk Management

Geospatial_Data_Presentation_Form: spreadsheet

Description:

Abstract: The data set contains coping strategies of Fakara households with drought and food deficit years.

Purpose: The purpose of the study was to evaluate how the Fakara households deal with risk of food shortages

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: : 10/05

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

G-Ring_Point:

G-Ring_Latitude: 13.50219

G-Ring_Longitude: 2.63092

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Household

Theme_Keyword: Risk management

Theme_Keyword: Strategies

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: West Africa

Place_Keyword: Sahel

Place_Keyword: Niger

Place_Keyword: Fakara

Place_Keyword: Banizoumbou

Place_Keyword: Kodey

Place_Keyword: Tigo Tegui

Access_Constraints: Access only allowed by originator

Security_Information:
 Security_Classification: Restricted
 Native_Data_Set_Environment: Microsoft Word
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: Number of Household: 27
 Number of Villages: 3
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Overview_Description:
 Entity_and_Attribute_Overview: The dataset are in Microsoft Word Environment. the collected informations are structured in 10 sections. each section contains some elements which explain the title of the section. the following sections are:

- Member of the family: informations about all members of family concerning their number, sex, education, matrimonial situation, Incomes
- Residence: informations about Birthplace of the head of family, Year of camping in the place, Reason of the camping, Numbers and materials of the house
- Situation of the fields: informations about fields concerning their location, surface, history, use, type of field, type of crop
- Fields rented to others:
- Livestock : informations about Animals concerning their number, output and utilization of manure in fields fertilization
- Social network : informations about others members of family concerning where they live, and their link with family
- Crop plants :informations about types of crop, place and periode of production and utilization
- Useful plants collect : informations about other plants in addition to crop plants concerning place and periode of the harvest and their utilisation
- Incomes & Markets : Sources of incomes and place of sale of the products
- Emergency action over the year (s): Particular events that caused some damage in the past and the undertaking actions to maintain family economy

Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: +81 29 838 6316
 Contact_Instructions: <http://www.jircas.affrc.go.jp>

Resource_Description: Household risk management in Fakara
Metadata_Reference_Information:
Metadata_Date: 20061124
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Address:
Address_Type: mailing and physical
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722529
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified

Data Set Number 160: Indigenous Knowledge description of sampling of Area

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 2005

Title: Indigenous Knowledge description of sampling of Area:
Fakara, Niger 2002-2003

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: JAICAF Expert Bulletin (in Japanese)

Issue_Identification: 25 (6): 12-26

Publication_Information:

Publication_Place: Japan

Publisher: JAICAF

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\h.keiishi\indigenous knowledge
description of sampling of area\Indigenous Knowledge description of
sampling of Area.dbf

Description:

Abstract:

The objective of this study was to evaluate indigenous knowledge on soil and land. In field surveys on indigenous knowledge (IK), different land based classifications are found, especially when fallow systems are concerned. Soil classifications, which are normally based on texture and colour, can differ from these land based classes. The farmers in this survey identified each land based class on years of cultivation after fallow. For instance, there was 'farey-zeno', meaning fallow land and 'sakara', 'lali-banda', 'kwari-kwari', noted as lands of first year, 2nd year, and 3rd year of cultivation, respectively. 'kwari-zeno' means a field that has been cultivated for 4 or more years. The most common soil type in the study area was a sandy soil called 'labu-tjirey', meaning redish sandy soil.

Soil analysis showed a fertility reduction with the number of years of cultivation after fallow. Total nitrogen in kwari-zeno soils was 152 mg/kg, which was 33 mg/kg lower than that of sakara soils. Therefore, soil fertility restoration in a fallow system is quite important for sustainable agricultural production. As to fertility level of fallow land, a short fallow of 2 years showed lower fertility levels than a 4 years fallow. However, these latter soils are still less fertile than sakara soils, which are 'first year fields' that have been under fallow for more than 4 years. This indicates that soil fertility can not be restored sufficiently through a short time fallow system of less than 4 years.

Purpose: To obtain quantitative information of indigenous knowledge on soil fertility and soil fertility management practice

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: September 2002

Single_Date/Time:

Calendar_Date: February 2003

Single_Date/Time:

Calendar_Date: May 2003

Currentness_Reference: ground condition
Status:
 Progress: Complete
 Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
 Bounding_Coordinates:
 West_Bounding_Coordinate: 2.583333
 East_Bounding_Coordinate: 2.866667
 North_Bounding_Coordinate: 13.583333
 South_Bounding_Coordinate: 13.333333
 Data_Set_G-Polygon:
 Data_Set_G-Polygon_Outer_G-Ring:
 G-Ring_Point:
 G-Ring_Latitude: 13.52775
 G-Ring_Longitude: 2.66024
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607
 G-Ring_Point:
 G-Ring_Latitude: 13.50219
 G-Ring_Longitude: 2.63092
Keywords:
 Theme:
 Theme_Keyword_Thesaurus: None
 Theme_Keyword: Indigenous knowledge
 Theme_Keyword: Soil fertility management
 Theme_Keyword: classification
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: Sahel
 Place_Keyword: West Africa
 Place_Keyword: Niger
 Place_Keyword: Fakara
 Place_Keyword: Ko Dey
 Place_Keyword: Tchigo Tegui
 Place_Keyword: Banizoumbou
Access_Constraints: Restricteted
Use_Constraints: Restricteted
Point_of_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Keiichi Hayashi
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 City: 1-1 Ohwashi, Tsukuba
 State_or_Province: Ibaraki
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6355
 Contact_Voice_Telephone: +227-20-722529/ 722626
 Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
 Contact_Electronic_Mail_Address: k.hayashi@cgiar.org
 Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog
9.0.0.535
Cross_Reference:
 Citation_Information:

Originator: Eva Schlechta, Andreas Buerkert
 Publication_Date: 2004
 Title: Organic inputs and farmers? management strategies in
 millet fields of western Niger
 Series_Information:
 Series_Name: Geoderma
 Issue_Identification: 121 (2004) 271289
 Publication_Information:
 Publisher: Elsevier
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: 348 points of 24 farms in three villages
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Value: number of farms and soil sample
 Lineage:
 Process_Step:
 Process_Description:
 Field surveys on Indigenous Knowledge:
 Collecte of Raw data
 Input of data in Excel spreadsheets
 process in Excel
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Indigenous Knowledge description of sampling
 of Area
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: Name of Village: TT (Tigi teguey); BZ
 (Banizombou); KK (Kodey)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Longitude of the place
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Latitude
 Attribute_Definition_Source: None
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Site Code
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C5

Attribute_Definition: Depth (cm)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C6
 Attribute_Definition: Land classification in local name
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: Soil type in local name
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Crop
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: Weed
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Shrub
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C11
 Attribute_Definition: Note
 Attribute_Definition_Source: Keiichi Hayashi
 Overview_Description:
 Entity_and_Attribute_Overview:
 The dataset contains the descriptive information about the indigenous knowledge of Fakara inhabitant concerning the following attributes:

TERRITORY : Name of the village
 SITECODE : Site Code
 DEPTH(CM) : The Soil depth (Cm)
 LAND_CLASS : Land classification
 SOIL_TYPE : Soil type
 Type of plant between CROP, WEED and SHRUB

Dataset Overview:

Soil type	Site code	Depth (cm)	Crop	Land classification
	GY1-25	5		Kwari-kwari
Labu-tjirey	20		millet, cowpea	
			Kwari-kwari	Labu-
tjirey	35		millet, cowpea	
			Kwari-kwari	Labu-
tjirey	GY1-50	5		Kwari-kwari
Labu-tjirey	20		millet, cowpea	
			Kwari-kwari	Labu-
tjirey	35		millet, cowpea	
			Kwari-kwari	Labu-
tjirey	GY1-75	5		Kwari-kwari
Labu-tjirey	20		millet, cowpea	
			Kwari-kwari	Labu-
tjirey			millet, cowpea	

tjirey millet, cowpea

Distribution Information:

Distributor:

Contact Information:

Contact Organization Primary:

Contact Organization: JIRCAS

Contact Address:

Address Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences (JIRCAS)

City: Ohwashi, Tsukuba, Ibaraki

Postal Code: 305 8686

Country: JAPAN

Contact Voice Telephone: +81 29 838 6330

Contact Facsimile Telephone: +81 29 838 6316

Contact Electronic Mail Address: head@ml.affrc.go.jp

Contact Instructions: <http://www.jircas.affrc.go.jp>

Resource Description: Indigenous knowledge on soil fertility management in Fakara

Distribution Liability: Data are restricted. Users who need the data should explore the metadata file and should contact JIRCAS via his physical or mailing address

Standard Order Process:

Digital Form:

Digital Transfer Information:

Format Name: dBase

Format Version Number: 4

Transfer Size: 0.082

Metadata Reference Information:

Metadata Date: 20070117

Metadata Contact:

Contact Information:

Contact Organization Primary:

Contact Organization: ICRISATSC

Contact Person: AMADOU M.Laouali

Contact Position: Consultant

Contact Address:

Address Type: mailing and physical address

Address: BP: 12404

City: Niamey

Country: Niger

Contact Voice Telephone: 0022720722529

Contact Electronic Mail Address: a.m.laouali@cgiar.org

Hours of Service: 8h00am - 16h00pm z+1

Contact Instructions: Email contact

Metadata Standard Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata Standard Version: FGDC-STD-001-1998

Metadata Time Convention: local time

Metadata Access Constraints: Restricted to Metadata project Scientists

Metadata Security Information:

Metadata Security Classification: Unclassified

Metadata Extensions:

Online Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile Name: ESRI Metadata Profile

Data Set Number 161: Questionnaire on indigineous soil knowledge

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 2005

Title: Questionnaire: Fakara, Niger 2002-2003

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: JAICAF Expert Bulletin (in Japanese)

Issue_Identification: 25 (6): 12-26

Publication_Information:

Publication_Place: Japan

Publisher: JAICAF

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\h.keiishi\questionnaire\Questionnaire.d
bf

Description:

Abstract:

The objective of this study was to evaluate indigenous knowledge on soil and land In field surveys on indigenous knowledge (IK), different land based classifications are found, especially when fallow systems are concerned. Soil classifications, which are normally based on texture and colour, can differ from these land based classes. The farmers in this survey identified each land based class on years of cultivation after fallow. For instance, there was ?farey-zeno?, meaning fallow land and ?sakara?, ?lali-banda?, ?kwari-kwari?, noted as lands of first year, 2nd year, and 3rd year of cultivation, respectively. ?kwari-zeno? means a field that has been cultivated for 4 or more years. The most common soil type in the study area was a sandy soil called ?labu-tjirey?, meaning redish sandy soil.

Soil analysis showed a fertility reduction with the number of years of cultivation after fallow. Total nitrogen in kwari-zeno soils was 152 mg/kg, which was 33 mg/kg lower than that of sakara soils. Therefore, soil fertility restoration in a fallow system is quite important for sustainable agricultural production. As to fertility level of fallow land, a short fallow of 2 years showed lower fertility levels than a 4 years fallow. However, these latter soils are still less fertile than sakara soils, which are ?first year fields? that have been under fallow for more than 4 years. This indicates that soil fertility can not be restored sufficiently through a short time fallow system of less then 4 years.

Purpose: To obtain quantitative information of indigenous knowledge on soil fertility and soil fertility management practice

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: September 2002

Single_Date/Time:

Calendar_Date: February 2003

Single_Date/Time:

Calendar_Date: May 2003

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

G-Ring_Point:

G-Ring_Latitude: 13.50219

G-Ring_Longitude: 2.63092

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Indigenous knowledge

Theme_Keyword: Soil fertility management

Theme_Keyword: classification

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Sahel

Place_Keyword: West Africa

Place_Keyword: Niger

Place_Keyword: Fakara

Place_Keyword: Ko Dey

Place_Keyword: Tchigo Tegui

Place_Keyword: Banizoumbou

Access_Constraints: Restricteted

Use_Constraints: Restricteted

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Keiichi Hayashi

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

City: 1-1 Ohwashi, Tsukuba

State_or_Province: Ibaraki

Postal_Code: 305-8686

Country: Japan

Contact_Voice_Telephone: +81-29-838-6355

Contact_Voice_Telephone: +227-20-722529/ 722626

Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp

Contact_Electronic_Mail_Address: k.hayashi@cgiar.org

Native_Data_Set_Environment: Microsoft Excel; dBase Table; ESRI ArcCatalog 9.0.0.535

Cross_Reference:

Citation_Information:

Originator: Eva Schlechta, Andreas Buerkert

Publication_Date: 2004

Title: Organic inputs and farmers? management strategies in millet fields of western Niger

Series_Information:
Series_Name: Geoderma
Issue_Identification: 121 (2004) 271289

Publication_Information:
Publisher: Elsevier

Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report: 348 points of 24 farms in three villages
Quantitative_Attribute_Accuracy_Assessment:
Attribute_Accuracy_Value: number of farms and soil sample

Lineage:
Process_Step:
Process_Description: No process step; this is the questionnaire which was used to collect informations about Indigenous Knowledge description of sampling of Area in three indicated villages

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: Questionnaire

Attribute:
Attribute_Label: OID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
Attribute_Label: CATEGOLIES
Attribute_Definition: Categories of different information collected: Soil type; level fertility; Fallow; Land utilization
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: INFORMANT1
Attribute_Definition: Person who give the answer. we have 10 Informants by questionnaire

Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: NAME
Attribute_Definition: Name of the concerned Informant
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: VILLAGE
Attribute_Definition: Name of village of the Informant
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: AGE
Attribute_Definition: Age of the Informant
Attribute_Definition_Source: Keiichi Hayashi

Attribute:
Attribute_Label: LANDSIZE
Attribute_Definition: Size of concerned Land
Attribute_Definition_Source: Keiichi Hayashi

Overview_Description:
Entity_and_Attribute_Overview:

This dataset is a template that was used to collecte data which are contained in the following dataset:

- Soil color of Indigenous knowledge on soil in Fakara
- Indigenous knowledge description of sampling area
- Soil fertility of Indigenous knowledge soil.

This survey form was administrated to farmers (informants) by age categorie (20, 30, 40, 50 and farmers who have more than 50 years)

Dataset Overview:

CATEGOLI	INFORMANT	INFORMANT2	INFORMANT3
----------	-----------	------------	------------

INFORMANT4

1. Soil types

Gangani

Tassi Tjirey (Labu Tjirey

Tassi Kwarey (Labu Kwarey)

Tassi Bi (Labu Bi)

Botogo Tjirey

Botogo Kwarey (Gri)

Botogo Bi

2. Niveau de fertilite

Farey

Birgui Farey

Kwaratje

Ga Zeno

Birgui Nougou

Fissi Nougou

Fagou

Balanga

Gah

Bongo Jinde

3. Fallow

Farey Zeno

Sakara

Lali Banda

Kwari Kwari

Kwari Zeno

Labu Farga

Bossey

Bouloungou

4. Land utilization

Farey Konou

Farey Mafe

Farey Kware

Farey Djibo

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences (JIRCAS)

City: Ohwashi, Tsukuba, Ibaraki

Postal_Code: 305 8686

Country: JAPAN
Contact_Voice_Telephone: +81 29 838 6330
Contact_Facsimile_Telephone: +81 29 838 6316
Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
Contact_Instructions: <http://www.jircas.affrc.go.jp>
Resource_Description: Downloadable Data
Distribution_Liability: Data are restricted. Users who need the data should explore the metadata file and should contact JIRCAS via his physical or mailing address
Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.007
Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted to Metadata project Scientists
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 162: Soil Color of Indigenous Knowledge Soil in Fakara/Niger 2002-2003

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 2005

Title: Soil Color of Indigenous Knowledge Soil in Fakara/Niger
2002-2003

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: JAICAF Expert Bulletin (in Japanese)

Issue_Identification: 25 (6): 12-26

Publication_Information:

Publication_Place: Japan

Publisher: JAICAF

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\h.keiishi\soil color of indigenous
knowledge soil in fakara\Soil Color of Indigenous Knowledge Soil in
Fakara.dbf

Description:

Abstract:

The objective of this study was to evaluate indigenous knowledge on soil and land In field surveys on indigenous knowledge (IK), different land based classifications are found, especially when fallow systems are concerned. Soil classifications, which are normally based on texture and colour, can differ from these land based classes. The farmers in this survey identified each land based class on years of cultivation after fallow. For instance, there was ?farey-zeno?, meaning fallow land and ?sakara?, ?lali-banda?, ?kwari-kwari?, noted as lands of first year, 2nd year, and 3rd year of cultivation, respectively. ?kwari-zeno? means a field that has been cultivated for 4 or more years. The most common soil type in the study area was a sandy soil called ?labu-tjirey?, meaning redish sandy soil.

Soil analysis showed a fertility reduction with the number of years of cultivation after fallow. Total nitrogen in kwari-zeno soils was 152 mg/kg, which was 33 mg/kg lower than that of sakara soils. Therefore, soil fertility restoration in a fallow system is quite important for sustainable agricultural production. As to fertility level of fallow land, a short fallow of 2 years showed lower fertility levels than a 4 years fallow. However, these latter soils are still less fertile than sakara soils, which are ?first year fields? that have been under fallow for more than 4 years. This indicates that soil fertility can not be restored sufficiently through a short time fallow system of less then 4 years.

Purpose: To obtain quantitative information of indigenous knowledge on soil fertility and soil fertility management practice

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: September 2002

Single_Date/Time:

Calendar_Date: February 2003

Single_Date/Time:

Calendar_Date: May 2003
Currentness_Reference: REQUIRED: The basis on which the time period of content information is determined.
Status:
Progress: Complete
Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate: 2.583333
East_Bounding_Coordinate: 2.866667
North_Bounding_Coordinate: 13.583333
South_Bounding_Coordinate: 13.333333
Data_Set_G-Polygon:
Data_Set_G-Polygon_Outer_G-Ring:
G-Ring_Point:
G-Ring_Latitude: 13.52775
G-Ring_Longitude: 2.66024
G-Ring_Point:
G-Ring_Latitude: 13.50950
G-Ring_Longitude: 2.77607
G-Ring_Point:
G-Ring_Latitude: 13.50219
G-Ring_Longitude: 2.63092
Keywords:
Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: Indigenous knowledge
Theme_Keyword: Soil fertility management
Theme_Keyword: classification
Place:
Place_Keyword_Thesaurus: None
Place_Keyword: Sahel
Place_Keyword: West Africa
Place_Keyword: Niger
Place_Keyword: Fakara
Place_Keyword: Ko Dey
Place_Keyword: Tchigo Tegui
Place_Keyword: Banizoumbou
Access_Constraints: Restricteted
Use_Constraints: Restricteted
Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Keiichi Hayashi
Contact_Organization: JIRCAS
Contact_Address:
Address_Type: mailing and physical
City: 1-1 Ohwashi, Tsukuba
State_or_Province: Ibaraki
Postal_Code: 305-8686
Country: Japan
Contact_Voice_Telephone: +81-29-838-6355
Contact_Voice_Telephone: +227-20-722529/ 722626
Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
Contact_Electronic_Mail_Address: k.hayashi@cgiar.org
Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog
9.0.0.535

Cross_Reference:

Citation_Information:

Originator: Eva Schlechta, Andreas Buerkert

Publication_Date: 2004

Title: Organic inputs and farmers? management strategies in millet fields of western Niger

Series_Information:

Series_Name: Geoderma

Issue_Identification: 121 (2004) 271289

Publication_Information:

Publisher: Elsevier

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: 348 points of 24 farms in three villages

Quantitative_Attribute_Accuracy_Assessment:

Attribute_Accuracy_Value: number of farms and soil sample

Lineage:

Process_Step:

Process_Description:

Collecte of data using soil sample

Input of data in Excel spreadsheets

and Processed in Excel

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Soil Color of Indigenous Knowledge Soil in Fakara

Attribute:

Attribute_Label: OID

Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute_Label: TERRITORY

Attribute_Definition: Name of the village

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: X_COORD

Attribute_Definition: Longitude

Attribute_Definition_Source: None

Attribute:

Attribute_Label: Y_COORD

Attribute_Definition: Latitude

Attribute_Definition_Source: None

Attribute:

Attribute_Label: SITECODE

Attribute_Definition: Code of the site

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: DEPTH(CM)

Attribute_Definition: Depth of soil horizon in cm
 Attribute_Definition_Source: Keiichi Hayashi
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural
 Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
 Contact_Instructions: http://www.jircas.affrc.go.jp
 Resource_Description: Soil color of Indigenous knowledge soil in
 Fakara
 Distribution_Liability: Data are restricted. Users who need the data
 should explore the metadata file and should contact JIRCAS via his
 physical or mailing address
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.136
 Metadata_Reference_Information:
 Metadata_Date: 20070117
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted to Metadata project
 Scientists
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: http://www.esri.com/metadata/esriprof80.html
 Profile_Name: ESRI Metadata Profile

Data Set Number 163: Soil Fertility (Corg TN brayP) of Indigenous Knowledge Soil

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 2005

Title: Soil Fertility (Corg TN brayP) of Indigenous Knowledge

Soil: Fakara, Niger 2002-2003

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: JAICAF Expert Bulletin (in Japanese)

Issue_Identification: 25 (6): 12-26

Publication_Information:

Publication_Place: Japan

Publisher: JAICAF

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\h.keiishi\soil fertility (corg tn brayp) of indigenous knowledge soil\Soil Fertility (Corg TN brayP) of Indigenous Knowledge Soil.dbf

Description:

Abstract:

The objective of this study was to evaluate indigenous knowledge on soil and land. In field surveys on indigenous knowledge (IK), different land based classifications are found, especially when fallow systems are concerned. Soil classifications, which are normally based on texture and colour, can differ from these land based classes. The farmers in this survey identified each land based class on years of cultivation after fallow. For instance, there was 'farey-zeno', meaning fallow land and 'sakara', 'lali-banda', 'kwari-kwari', noted as lands of first year, 2nd year, and 3rd year of cultivation, respectively. 'kwari-zeno' means a field that has been cultivated for 4 or more years. The most common soil type in the study area was a sandy soil called 'labu-tjirey', meaning redish sandy soil.

Soil analysis showed a fertility reduction with the number of years of cultivation after fallow. Total nitrogen in kwari-zeno soils was 152 mg/kg, which was 33 mg/kg lower than that of sakara soils. Therefore, soil fertility restoration in a fallow system is quite important for sustainable agricultural production. As to fertility level of fallow land, a short fallow of 2 years showed lower fertility levels than a 4 years fallow. However, these latter soils are still less fertile than sakara soils, which are 'first year fields' that have been under fallow for more than 4 years. This indicates that soil fertility can not be restored sufficiently through a short time fallow system of less than 4 years.

Purpose: To obtain quantitative information of indigenous knowledge on soil fertility and soil fertility management practice

Time_Period_of_Content:

Time_Period_Information:

Multiple_Dates/Times:

Single_Date/Time:

Calendar_Date: September 2002

Single_Date/Time:

Calendar_Date: February 2003

Single_Date/Time:

Calendar_Date: May 2003

Currentness_Reference: ground condition

Status:
Progress: Complete
Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
Bounding_Coordinates:
West_Bounding_Coordinate: 2.583333
East_Bounding_Coordinate: 2.866667
North_Bounding_Coordinate: 13.583333
South_Bounding_Coordinate: 13.333333
Data_Set_G-Polygon:
Data_Set_G-Polygon_Outer_G-Ring:
G-Ring_Point:
G-Ring_Latitude: 13.52775
G-Ring_Longitude: 2.66024
G-Ring_Point:
G-Ring_Latitude: 13.50950
G-Ring_Longitude: 2.77607
G-Ring_Point:
G-Ring_Latitude: 13.50219
G-Ring_Longitude: 2.63092
Keywords:
Theme:
Theme_Keyword_Thesaurus: None
Theme_Keyword: Indigenous knowledge
Theme_Keyword: Soil fertility management
Theme_Keyword: classification
Place:
Place_Keyword_Thesaurus: None
Place_Keyword: Sahel
Place_Keyword: West Africa
Place_Keyword: Niger
Place_Keyword: Fakara
Place_Keyword: Ko Dey
Place_Keyword: Tchigo Tegui
Place_Keyword: Banizoumbou
Access_Constraints: Restricteted
Use_Constraints: Restricteted
Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Keiichi Hayashi
Contact_Organization: JIRCAS
Contact_Address:
Address_Type: mailing and physical
City: 1-1 Ohwashi, Tsukuba
State_or_Province: Ibaraki
Postal_Code: 305-8686
Country: Japan
Contact_Voice_Telephone: +81-29-838-6355
Contact_Voice_Telephone: +227-20-722529/ 722626
Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
Contact_Electronic_Mail_Address: k.hayashi@cgiar.org
Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog
9.0.0.535
Cross_Reference:
Citation_Information:
Originator: Eva Schlechta, Andreas Buerkert

Publication_Date: 2004
 Title: Organic inputs and farmers? management strategies in
 millet fields of western Niger
 Series_Information:
 Series_Name: Geoderma
 Issue_Identification: 121 (2004) 271289
 Publication_Information:
 Publisher: Elsevier
 Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: 348 points of 24 farms in three villages
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Value: number of farms and soil sample
 Lineage:
 Process_Step:
 Process_Description:
 Sample of soil
 Collecte of data by soil horizon
 Input of data in Excel spreadsheets
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Soil Fertility (Corg TN brayP) of Indigenous
 Knowledge Soil
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: TERRITORY
 Attribute_Definition: Name of the village
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: X_COORD
 Attribute_Definition: Longitude
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: Y_COORD
 Attribute_Definition: Latitude
 Attribute_Definition_Source: none
 Attribute:
 Attribute_Label: SITECODE
 Attribute_Definition: Code of the site
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: DEPTH(CM)
 Attribute_Definition: Depth of soil horizon (cm)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:

Attribute_Label: CORG(%)
 Attribute_Definition: Values of organic carbone in %
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: NT(MG/KG)
 Attribute_Definition: values of total nitrogene (Mg/kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: B_P1(MG/KG)
 Attribute_Definition: Values Phosphorus (Mg/kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Overview_Description:
 Entity_and_Attribute_Overview:
 The data set contains the soil depth and the values of differents elements that indicate quantitative information on soil fertility: Organique Carbone, Total Nitrogene and Phosphorus
 Dataset Overview:

Terr	X_COORD	Y_COORD	CODE
DEPTH (CM)	CORG (%) NT B/P1		
TT	2.77607	13.50950	GY1-25
TT	2.77607	13.50950	GY1-25
TT	2.77607	13.50950	GY1-25
TT	2.77607	13.50950	GY1-50
TT	2.77607	13.50950	GY1-50
TT	2.77607	13.50950	GY1-50
TT	2.77607	13.50950	GY1-75
TT	2.77607	13.50950	GY1-75
TT	2.77607	13.50950	GY1-75
TT	2.77607	13.50950	GY13-50

 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural Sciences (JIRCAS)
 City: Ohwashi, Tsukuba, Ibaraki
 Postal_Code: 305 8686
 Country: JAPAN
 Contact_Voice_Telephone: +81 29 838 6330
 Contact_Facsimile_Telephone: +81 29 838 6316
 Contact_Electronic_Mail_Address: head@ml.affrc.go.jp
 Contact_Instructions: http://www.jircas.affrc.go.jp
 Resource_Description: Soil fertility (Corg TN BrayP) of Indigenous knowledge soil
 Distribution_Liability: Data are restricted. Users who need the data should explore the metadata file and should contact JIRCAS via his physical or mailing address
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: dBase
 Format_Version_Number: 4
 Transfer_Size: 0.037
 Metadata_Reference_Information:

Metadata_Date: 20070117
Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISATSC
 Contact_Person: AMADOU M.Laouali
 Contact_Position: Consultant
 Contact_Address:
 Address_Type: mailing and physical address
 Address: BP: 12404
 City: Niamey
 Country: Niger
 Contact_Voice_Telephone: 0022720722529
 Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
 Hours_of_Service: 8h00am - 16h00pm z+1
 Contact_Instructions: Email contact
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Access_Constraints: Restricted to Metadata project
Scientists
 Metadata_Security_Information:
 Metadata_Security_Classification: Unclassified
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 158: Estimation of nutrient removal through crop production of three villages in Fakara/Niger 2004-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 20050912

Title: Estimation of nutrient removal through crop production of three villages in Fakara/Niger 2004-2005

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: Report of Intermediate Evaluation Meeting for JIRCAS-ICRISAT collaborative Project

Issue_Identification: pp24-31

Publication_Information:

Publication_Place: Japan

Publisher: JIRCAS

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\h.keiishi\estimation of nutrient removal through crop production of three villages in fakara\Estimation of nutrient removal through crop production of three villages in Fakara.dbf

Description:

Abstract: 5 households in Banizoumbou, Tchigo Tegui and Ko Dey of Fakara were taken in order to conduct the survey and we surveyed 17 farms in terms of recycling activity. Mean of transport, frequency, sort of sources, quantity were determined. Quantity of recycled materials was estimated based on the information and its quality is being determined through labo analysis. Results showed tha the frequency of application was 222times in average and applied amount as well as applied area was 1215m3/ha, 0.41 ha, respectively. However, the content of transported manure was occupied largely by sand (47%) and 20% was occupied by low and not decomposable materials. Only 33% of whole materials were occupied by cow dung. This should be also taken into account for the quality improvement on this management.

Purpose: To obtain quantitative information on recycling system in order to evaluate organic resource mobilization in agriculture

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004

Ending_Date: 2005

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775
 G-Ring_Longitude: 2.66024
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607
 G-Ring_Point:
 G-Ring_Latitude: 13.50219
 G-Ring_Longitude: 2.63092

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
 Theme_Keyword: Local soil fertility management
 Theme_Keyword: Recycling system
 Theme_Keyword: Millet production

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: Banizoumbou
 Place_Keyword: Tchigo Tegui
 Place_Keyword: Ko Dey
 Place_Keyword: Fakara
 Place_Keyword: Niger
 Place_Keyword: West Africa

Access_Constraints: Restricted
 Use_Constraints: Restricted

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:
 Contact_Person: Keiichi Hayashi
 Contact_Organization: JIRCAS

Contact_Address:
 Address_Type: mailing
 Address:
 City: 1-1 Ohwashi, Tsukuba
 State_or_Province: Ibaraki
 Postal_Code: 305-8686
 Country: Japan

Contact_Voice_Telephone: +81-29-838-6355
 Contact_Voice_Telephone: +227-20722529/ 20722626
 Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
 Contact_Electronic_Mail_Address: k.hayashi@cgiar.org

Hours_of_Service:
 Contact_Instructions: Prefer contact by email address

Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535

Cross_Reference:

Citation_Information:
 Originator: Gandah, M., Brouwer, J., Hiernaux, P. and Van
 Duivenbouden, N
 Publication_Date: 2003
 Title: Fertility management and landscape position: farmers?
 use of nutrient sources in western Niger and possible improvements

Series_Information:
 Series_Name: Nutrient Cycling in Agroecosystems
 Issue_Identification: 67: 55-66

Publication_Information:
 Publication_Place: Netherlands
 Publisher: Springer

Cross_Reference:

Citation_Information:

Originator: Williams T.O., J.M. Powell & S. Fernández-Rivera

Publication_Date: 1995

Title: Manure availability in relation to sustainable food crop production in Semi-Arid West Africa: evidence from Niger.

Series_Information:

Series_Name: Quaterly J. Int. Agr.

Issue_Identification: 34: 248258

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: 19 farms of 15 Jerma households in three villages

Quantitative_Attribute_Accuracy_Assessment:

Attribute_Accuracy_Value: Number of household, farm and sample of transported manure

Attribute_Accuracy_Explanation:

Banizoumbou vilage; 1 farm (BBZ9) with 1 sample, 1 farm (BBZ39) with 1 sample, 1 farm (BBZ23) with 1 sample, 1 farm (BBZ70) with 1 sample, 1 farm (BBZ67) with 1 sample

Tchigo Tegui vilage; 2 farms (TTF3) with 1 sample, 1 farm (TTF6) with 1 sample, 1 farm (TTF70) with 1 sample, 1 farm (T7) with 1 sample, 1 farm (TTF8) with 1 sample

Ko Dey vilage; 2 farms (KK61) with 1 sample, 1 farm (KK46) with 1 sample, 3 famrs (K122) with 1 sample, 1 famr (KK15) with 1 sample, 1 farm (KK31) with 1 sample

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: Bationo et al

Publication_Date: 1995

Title: A critical review of crop-residue use as soil amendment in the West AfricaIn; Powell JM, Fernandez-Riveras S, Williams TO and Renard C (Eds) Livestock and nutrient cycling in mixed farming systems of sub-saharan Africa

Edition: unknown

Process_Step:

Process_Description: Data were collected through an interview by questionnaire in three vilages and were input into spreadsheet of Excel and processed by Excel

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Keiichi Hayashi

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences

City: 1-1 Ohwashi Tsukuba

Postal_Code: 305-8686

Country: Japan

Contact_Voice_Telephone: +81-29-838-6355

Contact_Voice_Telephone: +227-20-722529

Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp

Contact_Electronic_Mail_Address: k.hayashi@cgiar.org

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Estimation of nutrient removal through crop
 production of three villages in Fakara
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: First Farmer name
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Second farmer Name
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Household number
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Code of village
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Identification
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C6
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: mgt
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Distance
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: mgt**
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Whole area (ha)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C11

Attribute_Definition: Non cultivated area 05 (ha)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C12
 Attribute_Definition: Cultivated area 05 (ha)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C13
 Attribute_Definition: Number of head Bundle
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C14
 Attribute_Definition: Number of stem bundle
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Production of millet head (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Production of millet (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C17
 Attribute_Definition: Estimate of millet stem prod # (kg ha-1)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Removal of tige* (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: Remained tige in the field (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C20
 Attribute_Definition: Total dry matter removed* (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C21
 Attribute_Definition: N removal* (7.87g/1kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: P removal *(0.84g/1kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: N remained* (7.87g/1kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: P remained *(0.84g/kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Total dry matter removed* (kg)

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C26

Attribute_Definition: N removal* (7.87g/1kg DM) kg

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C27

Attribute_Definition: P removal *(0.84g/1kg DM) kg

Attribute_Definition_Source: Keiichi Hayashi

Overview_Description:

Entity_and_Attribute_Overview:

the table contains attributes as listed below about the area, the biomass, production and the recycling system of mineral element:

Whole area*** (ha)

Non cultivated area 05 (ha)

Cultivated are 05 (ha)

No. botte epi 05

No. botte tige 05

Production of millet head (kg)

Production of millet(kg) Estimate of millet stem prod # (kg ha-1)

Removal of tige* (kg)

Remained tige in the field (kg)

Total dry matter removed* (kg)

N removal* (7.87g/1kg DM) kg

P removal *(0.84g/1kg DM) kg

N remained* (7.87g/1kg DM) kg

P remained *(0.84g/kg DM) kg

Total dry matter removed* (kg)

N removal* (7.87g/1kg DM) kg

P removal *(0.84g/1kg DM) kg

Entity_and_Attribute_Detail_Citation:

The dataset contains superficies of cultivated and non cultivated area, the number of Epis and stem; Production of millet; the estimate of millet stem production; Removal of tige.

we has also the transfer of organics matter in the fields based on survey.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Japan International Research Center for Agricultural Sciences (JIRCAS)

Contact_Address:

Address_Type: mailing and physical

Address: Ohwashi, Tsukuba, Ibaraki, 305 8686 JAPAN

Country: JAPAN

Contact_Voice_Telephone: +81 29 838 6330

Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Hours_of_Service: 9:00am to 6:00pm j+8

Contact_Instructions: <http://www.jircas.affrc.go.jp>

Resource_Description: Downloadable Data

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: dBase

Format_Version_Number: 4

Transfer_Size: 0.041
Metadata_Reference_Information:
Metadata_Date: 20070117
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Position: Consultant
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00 am - 16h00 pm z+1
Contact_Instructions: prefer to be contact by email address
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Use_Constraints: Restricted
Metadata_Security_Information:
Metadata_Security_Classification_System: none
Metadata_Security_Classification: Unclassified
Metadata_Security_Handling_Description: none
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 159: Quantity and quality of materials used for recycling system of three villages in Fakara/Niger 2004-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 20050912

Title: Quantity and quality of materials used for recycling system of three villages in Fakara/Niger 2004-2005

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: Report of Intermediate Evaluation Meeting for JIRCAS-ICRISAT collaborative Project

Issue_Identification: pp24-31

Publication_Information:

Publication_Place: Japan

Publisher: JIRCAS

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\h.keiishi\quantity and quality of materials used for recycling system of three villages in fakara\Quantity and quality of materials used for recycling system of three villages in Fakara.dbf

Description:

Abstract: 5 households in Banizoumbou, Tchigo Tegui and Ko Dey of Fakara were taken in order to conduct the survey and we surveyed 17 farms in terms of recycling activity. Mean of transport, frequency, sort of sources, quantity were determined. Quantity of recycled materials was estimated based on the information and its quality is being determined through labo analysis. Results showed tha the frequency of application was 222times in average and applied amount as well as applied area was 1215m3/ha, 0.41 ha, respectively. However, the content of transported manure was occupied largely by sand (47%) and 20% was occupied by low and not decomposable materials. Only 33% of whole materials were occupied by cow dung. This should be also taken into account for the quality improvement on this management.

Purpose: To obtain quantitative information on recycling system in order to evaluate organic resource mobilization in agriculture

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004

Ending_Date: 2005

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775
 G-Ring_Longitude: 2.66024
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607
 G-Ring_Point:
 G-Ring_Latitude: 13.50219
 G-Ring_Longitude: 2.63092

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
 Theme_Keyword: Local soil fertility management
 Theme_Keyword: Recycling system
 Theme_Keyword: Millet production

Place:

Place_Keyword_Thesaurus: None
 Place_Keyword: Banizoumbou
 Place_Keyword: Tchigo Tegui
 Place_Keyword: Ko Dey
 Place_Keyword: Fakara
 Place_Keyword: Niger
 Place_Keyword: West Africa

Access_Constraints: Restricted
 Use_Constraints: Restricted

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:
 Contact_Person: Keiichi Hayashi
 Contact_Organization: JIRCAS

Contact_Address:
 Address_Type: mailing and physical
 City: 1-1 Ohwashi, Tsukuba
 State_or_Province: Ibaraki
 Postal_Code: 305-8686
 Country: Japan

Contact_Voice_Telephone: +81-29-838-6355
 Contact_Voice_Telephone: +227-20722529/ 20722626
 Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
 Contact_Electronic_Mail_Address: k.hayashi@cgiar.org
 Hours_of_Service: 9:00am to 6:00pm j+8
 Contact_Instructions: Prefer contact by email address

Native_Data_Set_Environment: Microsoft Excel; dBase ; ESRI ArcCatalog
 9.0.0.535

Cross_Reference:

Citation_Information:
 Originator: Gandah, M., Brouwer, J., Hiernaux, P. and Van
 Duivenbooden, N
 Publication_Date: 2003
 Title: Fertility management and landscape position: farmers?
 use of nutrient sources in western Niger and possible improvements
 Series_Information:
 Series_Name: Nutrient Cycling in Agroecosystems
 Issue_Identification: 67: 55-66
 Publication_Information:
 Publication_Place: Netherlands
 Publisher: Springer

Cross_Reference:

Citation_Information:
 Originator: Williams T.O., J.M. Powell & S. Fernández-Rivera
 Publication_Date: 1995
 Title: Manure availability in relation to sustainable food crop production in Semi-Arid West Africa: evidence from Niger.

Series_Information:
 Series_Name: Quaterly J. Int. Agr.
 Issue_Identification: 34: 248258

Data_Quality_Information:
 Attribute_Accuracy:
 Attribute_Accuracy_Report: 19 farms of 15 Jerma households in three villages

Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Value: Number of household, farm and sample of transported manure

Attribute_Accuracy_Explanation:
 Banizoumbou vilage; 1 farm (BBZ9) with 1 sample, 1 farm (BBZ39) with 1 sample, 1 farm (BBZ23) with 1 sample, 1 farm (BBZ70) with 1 sample, 1 farm (BBZ67) with 1 sample
 Tchigo Tegui vilage; 2 farms (TTF3) with 1 sample, 1 farm (TTF6) with 1 sample, 1 farm (TTF70) with 1 sample, 1 farm (T7) with 1 sample, 1 farm (TTF8) with 1 sample
 Ko Dey vilage; 2 farms (KK61) with 1 sample, 1 farm (KK46) with 1 sample, 3 famrs (K122) with 1 sample, 1 famr (KK15) with 1 sample, 1 farm (KK31) with 1 sample

Lineage:
 Process_Step:
 Process_Description: Data were collected through an interview by questionnaire in three vilages and were input into spreadsheet of Excel and processed by Excel

Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Keiichi Hayashi
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing and physical
 Address: Japan International Research Center for Agricultural Sciences
 City: 1-1 Ohwashi Tsukuba
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6355
 Contact_Voice_Telephone: +227-20-722529
 Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
 Contact_Electronic_Mail_Address: k.hayashi@cgiar.org

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Quantity and quality of materials used for recycling system of three vilages in Fakara
 Attribute:

Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.

Attribute:
 Attribute_Label: C1
 Attribute_Definition: First name of the farmer
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C2
 Attribute_Definition: Second name of the farmer
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C3
 Attribute_Definition: Name of the village: BZ (Banizoumbou); TT
 (Tigo teguey) KK (Kodey)
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C4
 Attribute_Definition: Longitude of the place
 Attribute_Definition_Source: None

Attribute:
 Attribute_Label: C5
 Attribute_Definition: Latitude
 Attribute_Definition_Source: None

Attribute:
 Attribute_Label: C6
 Attribute_Definition: Type of manure transported on Field
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C7
 Attribute_Definition: Soil quantity
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C8
 Attribute_Definition: Manure quantity
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C9
 Attribute_Definition: Soft organic matter quantity
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C10
 Attribute_Definition: Hard organic matter quantity
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C11
 Attribute_Definition: Others materiels quantity
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C12
 Attribute_Definition: Quantity of all materiels
 Attribute_Definition_Source: Keiichi Hayashi

Attribute:
 Attribute_Label: C13

Attribute_Definition: Total Nitrogen proportion in Soil
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C14
 Attribute_Definition: Total Phosphorus proportion in Soil
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Total organic Carbone proportion in Soil
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Total Nitrogen proportion in Manure
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C17
 Attribute_Definition: Total Phosphorus proportion in Manure
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Total organic Carbone proportion in Manure
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: Total Nitrogen proportion in Soft organic
 matter
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C20
 Attribute_Definition: Total Phosphorus proportion in Soft organic
 matter
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C21
 Attribute_Definition: Total organic Carbone proportion in Soft
 organic matter
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: Total Nitrogen proportion in Total
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: Total Phosphorus proportion in Total
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: Total Carbone proportion in Total
 Attribute_Definition_Source: Keiichi Hayashi
 Overview_Description:
 Entity_and_Attribute_Overview:
 the table contains the name of farmers, the coordinate of the
 villages , and values of soil, Manureand organic matter. At the end of
 the table we have four repetitions of 'T-N; TP and C org;' that come
 respectively in the same order of Soil, Manure, Organic Matter (OM),
 and total.

For the Soil, Organics Matter (OM), and Total attribute, we have only the results concerning Nitrogen (N)

For the Manure, we have the results concerning Nitrogen (N) and Phosphorus (P)

Dataset Overview:

Type	Soil
Manure	OM(soft)
Cow feces	23000
2971.58	5324.49
Cow feces +rubbish	24720
2368.03	4240
Rubbish	1281.9
4880	5180
Cow feces+rubbish	41580
8900	9480
Cow feces	20000
4900	10360
Ptt ruminnt+rubbish	23800
1842	20000

Distribution Information:

Distributor:

Contact Information:

Contact Organization Primary:

Contact Organization: Japan International Research Center for Agricultural Sciences (JIRCAS)

Contact Address:

Address Type: mailing and physical

Address: 305 8686 JAPAN

City: Ohwashi, Tsukuba, Ibaraki

Country: JAPAN

Contact Voice Telephone: +81 29 838 6330

Contact Facsimile Telephone: +81 29 838 6316

Contact Electronic Mail Address: head@ml.affrc.go.jp

Hours of Service: 9:00am to 6:00pm j+8

Contact Instructions: <http://www.jircas.affrc.go.jp>

Resource Description: Downloadable Data

Standard Order Process:

Digital Form:

Digital Transfer Information:

Format Name: dBase

Format Version Number: 4

Transfer Size: 0.011

Metadata Reference Information:

Metadata Date: 20070117

Metadata Contact:

Contact Information:

Contact Organization Primary:

Contact Organization: ICRISATSC

Contact Person: AMADOU M.Laouali

Contact Position: Consultant

Contact Address:

Address Type: mailing and physical address

Address: BP: 12404

City: Niamey

Country: Niger

Contact Voice Telephone: 0022720722626

Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00 am - 16h00 pm z+1
Contact_Instructions: prefer to be contact by email address
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Use_Constraints: Restricted
Metadata_Security_Information:
Metadata_Security_Classification_System: none
Metadata_Security_Classification: Unclassified
Metadata_Security_Handling_Description: none
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 154: On farm survey on the cowpea cultivation/Fakara, Niger 2003

Identification_Information:

Citation:

Citation_Information:

Originator: Ryoichi Matsunaga

Publication_Date: 20061201

Title: On farm survey on the cowpea cultivation/Fakara, Niger
2003

Edition: 1st version

Geospatial_Data_Presentation_Form: tabular digital data

Publication_Information:

Publication_Place: Japan

Publisher: Japanese Society for Tropical Agriculture

Online_Linkage: \\Isc-svr01\GeoNetwork\fakaradatabase\r.
matsunaga\on farm survey on the cowpea cultivation\On farm survey on
the cowpea cultivation.dbf

Description:

Abstract: The local varieties had common traits such as indeterminate spreading growth habit and white seeds with black eye. We found that insect-pests and low plant density should be the major constraints in cowpea production in the study area.

Purpose: The objectice is to understand the stresses constraining performance of the local varieties in order to select and disseminate new cowpea varieties which are adaptable to the local environments and to adoptable to the local farmer in the Sahel.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 30 Sept 2003

Beginning_Time: unknown

Ending_Date: 1 Oct 2003

Ending_Time: unknown

Currentness_Reference: publication date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.37954

G-Ring_Longitude: 2.84407

G-Ring_Point:

G-Ring_Latitude: 13.50950

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
 Theme_Keyword: Cowpea
 Theme_Keyword: Vigna unguiculata
 Theme_Keyword: Field survey
 Theme_Keyword: Local variety
 Theme_Keyword: Diseases
 Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: Sahel
 Place_Keyword: Fakara
 Place_Keyword: Bani Zoumbou
 Place_Keyword: Kody
 Place_Keyword: Tchigo Tégui
 Access_Constraints: Restricted
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: JIRCAS
 Contact_Person: Ryoichi Matsunaga
 Contact_Position: Senior Researcher
 Contact_Address:
 Address_Type: mailing and physical
 City: Tsukuba
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6352
 Contact_Electronic_Mail_Address:
 ryoichi_matsunaga@jircas.affrc.go.jp
 Hours_of_Service: 9:00am to 6:00pm j+8
 Contact_Instructions: Prefer to contact by mailing address
 Data_Set_Credit:
 Soja Amadou, ICRISAT-NIamey
 Maman Bachir Magagi, ICRISAT-NIamey
 Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535
 Data_Quality_Information:
 Attribute_Accuracy:
 Quantitative_Attribute_Accuracy_Assessment:
 Attribute_Accuracy_Value: number of surveyed fields
 Attribute_Accuracy_Explanation: 20 cowpea fields around each
 three villages (Bani Zoumbou, Kodey, and Tchigo Tegui) in Fakara
 Lineage:
 Process_Step:
 Process_Description:
 Agronomic traits of local varieties were described
 The incidence of diseases (cercospora leaf spot and golden
 virus) in the surveyed fields was visually scored following a 0 to 5
 scale. All of the data were input into spreadsheet of Excel and
 processed by Excel.
 Process_Date: Unknown
 Process_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Ryoichi Matsunaga
 Contact_Organization: JIRCAS
 Contact_Address:

Address_Type: mailing and physical
 Address: JIRCAS, 1-1 Ohwashi, Ibaraki 305-8686, Japan
 City: Tsukuba
 Postal_Code: 305-8686
 Country: Hapan
 Contact_Voice_Telephone: +81-29-838-6352

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point

Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: On farm survey on the cowpea cultivation

Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.

Attribute:
 Attribute_Label: C1
 Attribute_Definition: Number of Cowpea field
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
 Attribute_Label: C2
 Attribute_Definition: Latitude North
 Attribute_Definition_Source: None

Attribute:
 Attribute_Label: C5
 Attribute_Definition: Longitude Est
 Attribute_Definition_Source: None

Attribute:
 Attribute_Label: C8
 Attribute_Definition: Leaf Shape
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
 Attribute_Label: C9
 Attribute_Definition: Plant type
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
 Attribute_Label: C10
 Attribute_Definition: Maturity
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
 Attribute_Label: C11
 Attribute_Definition: Podding Stage
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
 Attribute_Label: C12
 Attribute_Definition: Podding setting
 Attribute_Definition_Source: Ryoichi Matsunaga

Attribute:
 Attribute_Label: C13
 Attribute_Definition: Importance of Cowpea Deseases

Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C14
Attribute_Definition: Importance of Cowpea Virus
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C15
Attribute_Definition: Color of cowpea seeds
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C16
Attribute_Definition: Soil fertility
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C17
Attribute_Definition: Row ratio of Millet
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C18
Attribute_Definition: Inter-row of Cowpea
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C19
Attribute_Definition: Intra-row of Cowpea
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C20
Attribute_Definition: density of Cowpea plant
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C21
Attribute_Definition: Inter-row of Millet
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C22
Attribute_Definition: Intra-row of Millet
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C23
Attribute_Definition: Density of Millet plant
Attribute_Definition_Source: Ryoichi Matsunaga
Attribute:
Attribute_Label: C24
Overview_Description:
Entity_and_Attribute_Overview:
the Data set contains to types of data : qualitaive and
quantitative data:
the quantitative data concercent the eight last attributes on
crop (millet and cowpea)informations.
the qualitative data are codified and relate to attributes like:
- Leaf Shape,
- Attribute Plant type,
- Attribute Maturity Gp,
- Attribute Podding Stage,
- Attribute Pd setting,
- Attribute Deseases,
- Attribute Virus,

- Attribute Sd Color,
 - Soil fertility,
 Data set overview:

	row ratio	inter-row	intra-row
Pt density	Millet	Cowpea	Cowpea
Cowpea			
1	1.6		1.5
4167			
2	4.1		1.8
1355			
2	2.2		1.4
3247			
2	2.9		1.5
2299			
2	2.6		1.7
2262			
2	2.9		2.7
1277			
3	3.5		1.6
1786			
1.3		0.9	
8547			
2	2.8		2.5
1429			

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences

City: Ohwashi, Tsukuba, Ibaraki

Postal_Code: 305 8686

Country: JAPAN

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Contact_Instructions: <http://www.jircas.affrc.go.jp>

Resource_Description: On farm survey on the cowpea cultivation in the Sahelian zone

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: dBase

Format_Version_Number: 4

Transfer_Size: 0.019

Metadata_Reference_Information:

Metadata_Date: 20070117

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISAT

Contact_Person: AMADOU M.Laouali

Contact_Position: Consultant

Contact_Address:

Address_Type: mailing and physical address
Address: PB: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: From 8h00am to 16h00pm z+1
Contact_Instructions: Contact by email address
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 183: Layout of the multilocal multifactorial (genotype, mineral fertilizer, manure) experiment conducted in 2003, 2004, 2005 (Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT

Publication_Date: 2005

Title: Layout of the multilocal multifactorial (genotype, mineral fertilizer, manure) experiment conducted in 2003, 2004, 2005 (Niger)

Geospatial_Data_Presentation_Form: vector digital data

Publication_Information:

Publication_Place: ICRISAT Niamey

Description:

Abstract: Field layout of multilocal experiments 2003-2005. The field layout was surveyed for the three sites with a Trimble differential GPS. No mapping update was performed for the manure blocks added in 2004 et 2005.

Purpose: Mapping of the field layout and extract spatial information from other layers at the experiment, block or plot scale. Georeference soil samples at the plot scale

Supplemental_Information: Attributes missing for Kodey site

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2003

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.645041

East_Bounding_Coordinate: 2.855856

North_Bounding_Coordinate: 13.521589

South_Bounding_Coordinate: 13.379592

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Microdose

Theme_Keyword: Mineral fertilizer

Theme_Keyword: NPK

Theme_Keyword: DAP

Theme_Keyword: Transported manure

Theme_Keyword: Organic manure

Theme_Keyword: Plot layout

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Dantchandou

Place_Keyword: Bagoua

Place_Keyword: Kodey

Place_Keyword: Banizoumbou

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:
 Temporal_Keyword_Thesaurus: none
 Temporal_Keyword: 2003
 Access_Constraints: Free distribution
 Use_Constraints: Cite when used
 Point_of_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT, Universite Catholique de Louvain
 Contact_Position: Principal scientist
 Contact_Address:
 Address_Type: mailing
 Address: b.gerard@cgiar.org
 Address: brugerard@yahoo.com
 Address: gerard@enge.ucl.ac.be
 City: Louvain la Neuve
 Country: Belgium
 Data_Set_Credit: Bruno Gerard, Dougbedji Fatondji, and Comfort Manayame
 Security_Information:
 Security_Classification: Unclassified
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Positional_Accuracy:
 Horizontal_Positional_Accuracy:
 Horizontal_Positional_Accuracy_Report: Mapping error < 0.5 m
 Lineage:
 Process_Step:
 Process_Description: Metadata imported.
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: G-polygon
 Point_and_Vector_Object_Count: 513
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:

Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Fakara_exp_layout2003

Attribute:

Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.

Attribute:

Attribute_Label: ID
 Attribute_Definition: Identification field
 Attribute_Definition_Source: Bruno Gerard

Attribute:

Attribute_Label: BLOCK
 Attribute_Definition: Manuring block
 Attribute_Definition_Source: Bruno Gerard
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: Corralled 2001
 Enumerated_Domain_Value_Definition: Plots where manure was applied in 2001
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: TM
 Enumerated_Domain_Value_Definition: Transported manure in 2003
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: Corralled 2002
 Enumerated_Domain_Value_Definition: Plots where manure was applied in 2002
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: Corralled 2003
 Enumerated_Domain_Value_Definition: Plots where manure was applied in 2003
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: NM
 Enumerated_Domain_Value_Definition: Plots which did not received any manure
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard

Attribute:

Attribute_Label: VILLAGE

Attribute_Definition: Village in which the experiment was conducted
 Attribute_Definition_Source: Bruno Gerard
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: Banizoumoubou
 Enumerated_Domain_Value_Definition: Village of Banizoumoubou
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: Kodey
 Enumerated_Domain_Value_Definition: Village of Kodey
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: Bagoua
 Enumerated_Domain_Value_Definition: Village of Bagoua
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Attribute:
 Attribute_Label: TREATMENT
 Attribute_Definition: Combination of Fertilizer and Genotype factor levels
 Attribute_Definition_Source: Bruno Gerard
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: DAP
 Enumerated_Domain_Value_Definition: Diamonium phosphate applied at 2 g/hill at planting
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: DAP+U
 Enumerated_Domain_Value_Definition: Diamonium phosphate applied at 2 g/hill at planting and urea applied at 1 g/hill at tillering
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: NF
 Enumerated_Domain_Value_Definition: No mineral fertilizer applied
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: Local
 Enumerated_Domain_Value_Definition: Millet landrace
 Enumerated_Domain:
 Enumerated_Domain_Value: ICMV89305
 Enumerated_Domain_Value_Definition: Millet improved cultivar ICMV89305
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Enumerated_Domain:
 Enumerated_Domain_Value: Zatib
 Enumerated_Domain_Value_Definition: Millet improved cultivar Zatib
 Enumerated_Domain_Value_Definition_Source: Bruno Gerard
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: Bruno Gerard

Contact_Position: Principal Scientist
 Contact_Address:
 Address: Unite de recherche en Environnement et Geomatique;
 Universite Catholique de Louvain
 City: Louvain-la-Neuve
 State_or_Province: Brussels
 Country: Belgium
 Contact_Voice_Telephone: +32477203899
 Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Resource_Description: Layout of the multilocational multifactorial
 (genotype, mineral fertilizer, manure) experiment conducted in 2003,
 2004, 2005
 Standard_Order_Process:
 Digital_Form:
 Digital_Transfer_Information:
 Format_Name: Microsoft Office Excel
 Transfer_Size: 0.067
 Metadata_Reference_Information:
 Metadata_Date: 20070130
 Metadata_Contact:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: REQUIRED: The organization responsible
 for the metadata information.
 Contact_Person: REQUIRED: The person responsible for the
 metadata information.
 Contact_Address:
 Address_Type: REQUIRED: The mailing and/or physical address for
 the organization or individual.
 City: REQUIRED: The city of the address.
 State_or_Province: REQUIRED: The state or province of the
 address.
 Postal_Code: REQUIRED: The ZIP or other postal code of the
 address.
 Contact_Voice_Telephone: REQUIRED: The telephone number by which
 individuals can speak to the organization or individual.
 Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
 Metadata
 Metadata_Standard_Version: FGDC-STD-001-1998
 Metadata_Time_Convention: local time
 Metadata_Extensions:
 Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
 Profile_Name: ESRI Metadata Profile

Data Set Number 184: Position of neutron probe access tubes placed in 2003 in the Fakara multilocation experiment (Niger)

Identification_Information:

Citation:

Citation_Information:

Originator: ICRISAT

Publication_Date: 2005

Title: Position of neutron probe access tubes placed in 2003 in the Fakara multilocation experiment (Niger)

Geospatial_Data_Presentation_Form: vector digital data

Publication_Information:

Publication_Place: ICRISAT Niamey

Description:

Abstract: Position of access tubes placed in 2003 for soil moisture measurements on weekly basis with neutron probe

Purpose: Locate soil moisture measurements

Supplemental_Information: No tube placed in Kodey in 2003.

Subsequent years not mapped but access tubes can be localized by the plot id of the experiment

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2003

Ending_Date: 2005

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.645102

East_Bounding_Coordinate: 2.773013

North_Bounding_Coordinate: 13.521467

South_Bounding_Coordinate: 13.495916

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Soil moisture

Theme_Keyword: Neutron probe

Theme_Keyword: Water balance

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Dantchandou

Place_Keyword: Bagoua

Place_Keyword: Banizoumbou

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2003

Access_Constraints: None

Use_Constraints: Cited when used

Point_of_Contact:

Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Bruno Gerard
 Contact_Organization: ICRISAT, Universite Catholique de Louvain
 Contact_Position: Principal scientist
 Contact_Address:
 Address_Type: mailing address
 Address: b.gerard@cgiar.org
 Address: brugerard@yahoo.com
 Address: gerard@enge.ucl.ac.be
 City: Louvain la Neuve
 Country: Belgium
 Contact_Voice_Telephone: +22720722626
 Contact_Facsimile_Telephone: +22720734329
 Contact_Electronic_Mail_Address: b.gerard@cgiar.org
 Contact_Electronic_Mail_Address: icrisatsc@cgiar.org
 Contact_Instructions: Prefer to be contacted by Email
 Data_Set_Credit: Bruno Gerard, Dougbedji Fatondji and Comfort Manayame
 Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324
 Data_Quality_Information:
 Positional_Accuracy:
 Horizontal_Positional_Accuracy:
 Horizontal_Positional_Accuracy_Report: Reported as attribute in the table
 Vertical_Positional_Accuracy:
 Vertical_Positional_Accuracy_Report: Reported as attribute in the table
 Lineage:
 Process_Step:
 Process_Description:
 Trimble files were differentially corrected and imported as shape files
 Projected in UTM31
 Process_Date: 2003
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Entity point
 Point_and_Vector_Object_Count: 251
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: Universal Transverse Mercator
 Universal_Transverse_Mercator:
 UTM_Zone_Number: 31
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999600
 Longitude_of_Central_Meridian: 3.000000
 Latitude_of_Projection_Origin: 0.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair

Coordinate_Representation:
 Abscissa_Resolution: 0.000000
 Ordinate_Resolution: 0.000000
 Planar_Distance_Units: meters
 Geodetic_Model:
 Horizontal_Datum_Name: D_WGS_1984
 Ellipsoid_Name: WGS_1984
 Semi-major_Axis: 6378137.000000
 Denominator_of_Flattening_Ratio: 298.257224
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: accesstubes2003
 Attribute:
 Attribute_Label: FID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: Shape
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
 Attribute_Label: COMMENT
 Attribute_Definition: traitement
 Attribute_Definition_Source: Dougbedji Fatondji
 Attribute:
 Attribute_Label: GPS_DATE
 Attribute_Definition: Date of taking GPS data
 Attribute_Definition_Source: Dougbedji Fatondji
 Attribute:
 Attribute_Label: FEAT_NAME
 Attribute_Definition: Feature name
 Attribute_Definition_Source: Dougbedji Fatondji
 Attribute:
 Attribute_Label: GPS_HEIGHT
 Attribute_Definition: Height of GPS position
 Attribute_Definition_Source: Dougbedji Fatondji
 Attribute:
 Attribute_Label: HORZ_PREC
 Attribute:
 Attribute_Label: VERT_PREC
 Distribution_Information:
 Distributor:
 Contact_Information:
 Contact_Organization_Primary:
 Contact_Organization: ICRISAT
 Contact_Person: Bruno Gerard
 Contact_Position: Principal Scientist
 Contact_Address:
 Address: Unite de recherche en Environnement et Geomatique;
 Universite Catholique de Louvain
 City: Louvain-la-Neuve

State_or_Province: Brussels
Country: Belgium
Contact_Voice_Telephone: +32477203899
Contact_Electronic_Mail_Address: gerard@enge.ucl.ac.be
Contact_Instructions: Prefer mailing contact
Resource_Description: Position of neutron probe access tubes placed
in 2003 in the Fakara multilocation experiment
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: Microsoft Office Excel
Transfer_Size: 0.007
Metadata_Reference_Information:
Metadata_Date: 20070130
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: AMADOU M.Laouali
Contact_Organization: ICRISAT
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
State_or_Province:
Postal_Code:
Country: Niger
Contact_Voice_Telephone: +22720722626
Contact_Facsimile_Telephone: +22720734329
Contact_Instructions: Prefer to be contacted by Email
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Security_Information:
Metadata_Security_Classification: Unclassified
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile

Data Set Number 48: Monitoring grazing route by sedentary Fulani

Identification_Information:

Citation:

Citation_Information:

Originator: Hitoshi Shinjo

Originator: Keiichi Hayashi

Publication_Date: Unpublished material

Title: Monitoring grazing route by sedentary Fulnai

Description:

Abstract: For natural resource management in the Sahel, the grazing in the mosaic of cropland and rangeland should be well understood. Three Fulani households were selected from Banizoumbou, Katanga and Taguey villages to monitor the grazing route monthly since December 2004.

Purpose: To understand the actual situation of grazing in the Fakara region to suggest realistic option for soil fertility improvement.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: December 2004

Ending_Date: not yet finished

Currentness_Reference: ground condition

Status:

Progress: In work

Maintenance_and_Update_Frequency: Monthly

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775

G-Ring_Longitude: 2.66024

G-Ring_Point:

G-Ring_Latitude: 13.53656

G-Ring_Longitude: 2.81533

G-Ring_Point:

G-Ring_Latitude: 13.5095

G-Ring_Longitude: 2.77607

Keywords:

Theme:

Theme_Keyword: Fulani

Theme_Keyword: Grazing

Place:

Place_Keyword_Thesaurus: Geographic Names Information System

Place_Keyword: Niger

Place_Keyword: Fakara

Access_Constraints: Within project of JIRCAS/ICRISAT

Use_Constraints: Not allowed

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:
Contact_Organization: KYOTO UNIV
Contact_Person: HITOSHI SHINJO
Contact_Position: Assistant professor
Contact_Address:
Address_Type: mailing and physical
Address:
City: KYOTO
Country: JAPAN
Contact_Voice_Telephone: +81757536101
Contact_Electronic_Mail_Address: shinhit@kais.kyoto-u.ac.jp
Hours_of_Service: 9:00-17:00 (UTC+9)
Contact_Instructions:
Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report: In monthly investigation of grazing route, one hired assistant or the shepherd of the herd followed the target herd. Thus, the route recorded may be somewhat different from the center of the herd.
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report: For following the herd, a Garmin GPS was used. Positional accuracy was no better than 5 m.
Vertical_Positional_Accuracy:
Vertical_Positional_Accuracy_Report: NA
Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: Monitoring grazing route by sedentary Fulnai
Entity_Type_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Village
Attribute_Definition: name of village
Attribute_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Alt
Attribute_Definition: altitude
Attribute_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Date
Attribute_Definition: Date
Attribute_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Lat_Deg
Attribute_Definition: Latitude in degrees
Attribute_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Lon_Deg
Attribute_Definition: Longitude in degrees
Attribute_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Hour-Niger
Attribute_Definition: Hour in time zone of Niger
Attribute_Definition_Source: Hitoshi SHINJO
Attribute:
Attribute_Label: Min-Niger
Attribute_Definition: Minute in time zone of Niger

Attribute_Definition_Source: Hitoshi SHINJO

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Japan International Research Center for Agricultural Sciences (JIRCAS)

Contact_Person: Hitoshi SHINJO

Contact_Position: Scientist

Contact_Address:

Address_Type: mailing and physical

Address: 305 8686 JAPAN

City: Ohwashi, Tsukuba, Ibaraki

Country: JAPAN

Contact_Voice_Telephone: +81 29 838 6330

Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Contact_Electronic_Mail_Address: shinhit@kais.kyoto-u.ac.jp

Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp

Hours_of_Service: 9:00am to 6:00pm j+8

Contact_Instructions: <http://www.jircas.affrc.go.jp>

Resource_Description: Monitoring grazing route by sedentary Fulnai

Distribution_Liability: Contact one of the three mailing addresses for authorization

Metadata_Reference_Information:

Metadata_Date: 20070117

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: AMADOU M.Laouali

Contact_Organization: ICRISAT

Contact_Address:

Address_Type: mailing and physical

Address: BP: 12404

City: Niamey

Country: Niger

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Security_Information:

Metadata_Security_Classification: Unclassified

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile

