

### ***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  
                 (Banizoumbou); 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:

Site code	Depth (cm)	Land classification
Soil type	Crop	
GY1-25	5	Kwari-kwari
Labu-tjirey	millet, cowpea	
20	Kwari-kwari	Labu-
tjirey	millet, cowpea	
35	Kwari-kwari	Labu-
tjirey	millet, cowpea	
GY1-50	5	Kwari-kwari
Labu-tjirey	millet, cowpea	
20	Kwari-kwari	Labu-
tjirey	millet, cowpea	
35	Kwari-kwari	Labu-
tjirey	millet, cowpea	
GY1-75	5	Kwari-kwari
Labu-tjirey	millet, cowpea	
20	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