

INTERNATIONAL AGRICULTURAL RESEARCH NETWORKING FOR JAPANESE RESEARCH INSTITUTIONS

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ABSTRACT

Japan International Research Center for Agricultural Research Center (JIRCAS) was founded as Japanese sole “national center” for international agricultural research for developing regions and has worked for various programs in collaboration with other national research institutions/universities and related organizations like Japan International Cooperation Agency (JICA). JIRCAS has initiated many international collaborative research projects for developing regions, and only a few other national institutions have initiated such projects mainly with more developed regions. The first-stage Rice Genome Research Program (2000-2004) led by National Institute of Agrobiological Sciences (NIAS) was the very typical example of such initiatives.

However, recent regional and global challenges in agricultural sciences such as global warming, food security/safety, biodiversity, etc. have pushed more institutions other than JIRCAS to involve in and take initiatives for international activities. Such an example is the Monsoon Asia Agro-Environmental Research Consortium (MARCO) initiated by National Institute of Agro-Environmental Sciences (NIAES). Some other research institutions have also developed more international activities and research.

Considering the above-mentioned changes, JIRCAS has made more efforts to contribute to international research as follows:

- Networking of Japanese research institutions, universities and other organizations through the Japan Forum on International Agricultural Research for Sustainable Development (J-FARD) in order to serve as a platform for cross-institutional coordination and cooperation across Japan.
- Networking with some regional/international networks such as Asia-Pacific Association of Agricultural Institutions (APAARI), Asia-Pacific Association of Forest Institutions (APAFRI), Southeast Asia Fisheries Development Center (SEAFDEC), Coalition for African Rice Development (CARD) and Global Forum on Agricultural Research (GFAR).
- Human resource development for international research by sending young scientists to research institutions in developing regions and also inviting young scientists from such regions.

More challenges will be expected in relation to recent development of international research issues such as Japanese government's new science and technology policy and CGIAR reforms including mega-programs and other initiatives. Therefore, JIRCAS is discussing the following approaches under the process of next mid-term (2011-2016) planning:

- Open JIRCAS' resources (various know-how, network, etc.) more to other institutions
- Develop more consortium-type international research projects by inviting other organizations/universities
- Invite more advanced developing/emerging regions as more equal partners in research projects
- Use more regional and global fora or networks for research project development
- Help human resource development for international research by inviting young researchers from other Japanese organizations/universities.

And, JIRCAS itself will keep working for developing regions and function to bridge between various stakeholders and partners from developing regions and Japanese research institutions/universities for regional and global issues.

In conclusion, JIRCAS must always upgrade the functions of national center for international research to adapt to regional and global changes and needs as well as national interests.

KEYWORDS

National center, international research, networking, J-FARD, human resource development

International Agricultural Research Networking for Japanese Research Institutions



The 40th Anniversary
Japan International Research Center for Agricultural Sciences

Content

1. As a national center for international agricultural research for development
2. New scientific challenges in agricultural sciences
3. Reform of National Science and Research Systems
4. Latest challenges in Agricultural Sciences
5. Conclusions



Networking as National Center for International Research

- ▶ JIRCAS as Sole International Agricultural Research Center for Developing Regions
 - East and Southeast Asia; Latin America → Sub-Saharan Africa, Central Asia
 - Agricultural → forestry and fisheries sciences
 - Alleviate food shortage and poverty
 - Work closely with partners (other national institutions/universities, JICA, etc.)
- ↓
- Incorporated administrative agencies (IAA, 2001 →) and National university corporation (2004 →)
 - ✓ More clearly defined goals and targets
 - ✓ More autonomous
 - ✓ Seek for more external competitive resources



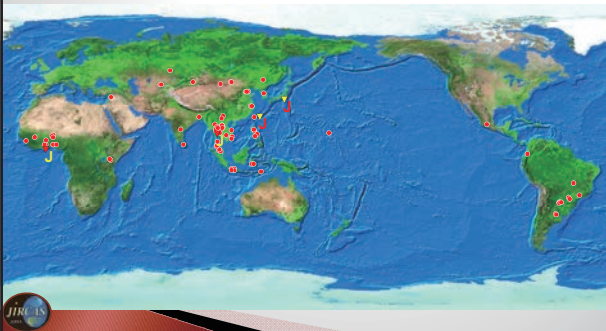
Sole Center for International Agricultural Research for Development in Japan

Foreign Orgs.



JIRCAS Project and Research Sites

40 Projects at 77 Institutions/Universities in 25 Developing Countries (2009)
Foreign Liaison Offices (Thailand-Bangkok, Ghana-Accra)



New Challenges in Agricultural Sciences

- ▶ New Scientific Issues: Biotechnology
- ▶ Regional Common issues: Trans-boundary epidemic plant and animal pests
- ▶ Global Issues: Millennium Development Goals, Natural Resource Management, Global Warming...)

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Some institutions and universities gradually shift more to international research activities.

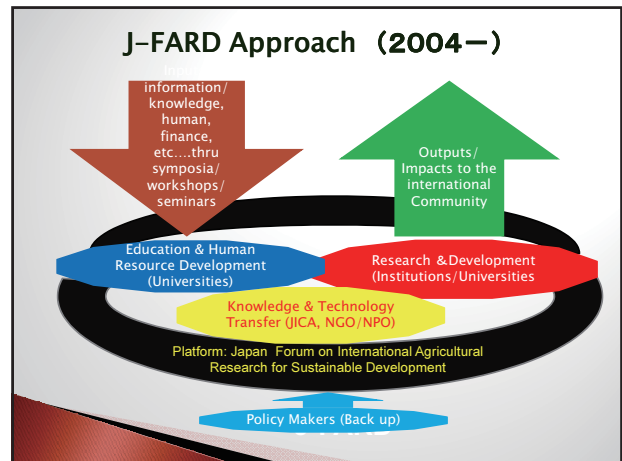


Initiatives for International Research by Institutions other than JIRCAS

International Rice Genome Sequencing Project led by NIAS, etc. (1997-2004)

From <http://irgsp.dna.affrc.go.jp/IRGSP/>

MARCO led by NIAES (2006—)
 Promote collaboration to solve agro-environmental issues
 Monsoon Asia (China, SE Asia, S. Asia)



Human Resource Development for International Research

- On-site Training of Young Researchers in Developing Regions (2006-2009)
 - ⇒ CG Centers **48** persons
 - ⇒ JIRCAS Project sites **38** persons

- Invitation Program for Young Researchers from Developing Regions (2006-2009)
 - ⇒ JIRCAS **118** persons
 - ⇒ JIRCAS Project sites **13** persons

Research Consortium-type Projects

- JIRCAS and then other institutions/national gradually shifted all research to project(consortium)-type research for more mission-driven research (develop partnership and networking –human and financial resources)
- JIRCAS: 9 projects → 40 projects
- More MOU (111, 2010.3)

↑

All fund ← competitive basis

Blast Research Network for Stable Rice Production

- Diversity studies for blast races and rice resistant, and development of differential System in Asia and Africa
- Development of universal differential system led by JIRCAS and NIAS
- Development and distribution of differential varieties thru IRRI/JIRCAS
- Assessing diversity/heterogeneity of rice varieties
- Development of multi line varieties (JIRCAS, participating countries)

Legend:
 — 2006-2010
 2011-2015 (Under consideration)

CARD: Coalition for African Rice Development

JICA, in partnership with AGRA, launched an initiative now known as CARD on the occasion of the Fourth Tokyo International Conference on African Development (TICAD IV) held in Yokohama, Japan in May 2008

Double rice production in SSA from 14 million tons/year to 28 million tons/year by 2018

Value Chain Approach

Agro-ecology Approach

Capacity Development

South-south Cooperation

Irrigated field Rehabilitation of existing irrigation facilities and strengthening of water user's associations

Rain-fed lowland Establishment and extension of rice development model

Rain-fed upland Intensified NERICA (New Rice for Africa) dissemination

CARD: Member Countries and Partners

Member Countries

CARD COUNTRIES

- Republic of Benin
- Burkina Faso
- Republic of Cameroon
- Central African Republic
- Democratic Republic of Congo
- Republic of Côte d'Ivoire
- Federal Democratic Republic of Ethiopia
- Republic of Ghana
- Republic of Guinea
- Republic of Guinea-Bissau
- Republic of Liberia
- Republic of Madagascar
- Republic of Mali
- Republic of Mauritius
- Federal Republic of Nigeria
- Republic of Rwanda
- Republic of Senegal
- Republic of Sierra Leone
- United Republic of Tanzania
- Togolese Republic
- Republic of Uganda
- Republic of Zambia

Partners

- African Rice Center (AfricaRice)
- African Development Bank (AfDB)
- Alliance for a Green Revolution in Africa (AGRA)
- The Bill and Melinda Gates Foundation
- Food and Agricultural Organizations of the United Nations (FAO)
- Forum for Agricultural Research in Africa (FARA)
- International Fund for Agricultural Development (IFAD)
- International Rice Research Institute (IRRI)
- Irish Aid
- Japan International Cooperation Agency (JICA)
- Japan International Research Center for Agricultural Sciences (JIRCAS)
- New Partnership for African Development (NEPAD)
- United States Agency for International Development (USAID)
- The World Bank (WB)
- World Food Program (WFP)
- Aga Khan Foundation
- BRAC
- Sasakawa Africa Association
- Foundation for Advanced Studies on International Development (FASID)

(Yellow character: Member of Steering Committee)

Human Resource Development for International Research

- ▶ Help young scientists to experience and challenge international research
- ▶ Develop scientist-to-scientist networks at young generation and succeed existing networks ⇔ enclosing
- ▶ Empower more scientists for international research

Latest Challenges In Agricultural Sciences

- ▶ Bio-resource (food/feed/biomaterial/energy) Security
- ▶ Global warming, Biodiversity, etc. vs. Sustainable Development
- ▶ Many still-unsolved Millennium Development Goals

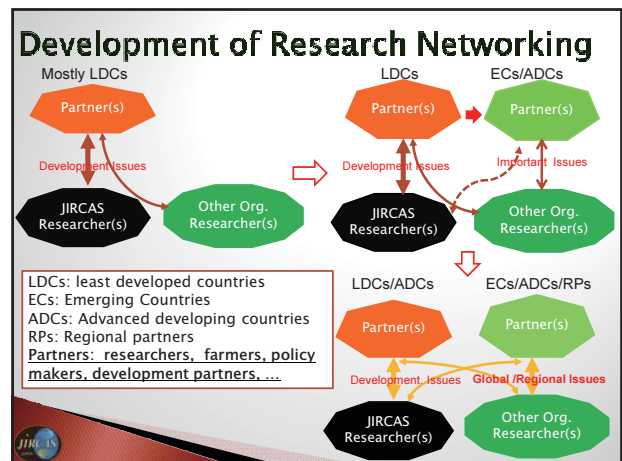
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- ▶ Many agricultural issues → more inter-related (domestic ⇔ regional ⇔ global) and common interests

Strengthening Networking

- ▶ More or more advanced MOUs and other agreements towards more equal partnerships
- ▶ More intense communication with international forums
 - ✓ Asia: APAARI, APAFRI, CORRA, ASEAN+, APEC.....
 - ✓ Africa: CARD, FARA
 - ✓ Global: CGIAR - GFAR.....

- ▶ More challenges in the next mid-term plan:
- ▶ Shift own resource more to less-developed regions
 - Shift own resource more to **less-developed regions**
 - Invite **other institutions** to regions where they can **share interests** including foreign institutes and CGIAR centers
 - Invite **advanced developing and emerging countries** to work together for less-developed regions so as to **share development experiences, knowledge and benefits from economic growth**
 - Work for **important regional and global issues** by bridging gaps between various partners



Conclusions!

- ▶ JIRCAS needs to continue **change and reform** in order to sustain its strength contributable to missions set by the government



Thank you very much! / Arigatou-gozaïmasu!



QUESTION and ANSWER

Masami Yasunaka: Thank you for the nice presentation, Mr. Miyata. And is there any small question or comments? Yes?

Christian Hoste: Well thank you very much for the nice presentation. I think I have understood better now what your Japanese forum J-FARD is. And looking at the picture there, you love to put the research institutions and the higher education together within the forum, and you put your policymakers outside the forum. And I think we have similar mechanisms in France, but we have considered it much more useful to have the ministries within the platform of discussion. Because we have at least three ministries involved – agriculture, research, and the foreign affairs,. You can dialogue with the ministries, and to be honest, since it's not always well coordinated between the ministries and the research institutes and the universities, it's something very useful. And what we have done is that for several years, we have this mechanism in place and sharing information. But also, we really think it's maybe something you can think about if your ministries are willing to play the game; I think it is for the mutual benefit of the organizations. And you can have two levels – a very high level meeting once a year with the big shots , but also we meet every month basically with the operations people to exchange ideas. And so that's sharing experience maybe with you.

The second point I want to make is that you have to put emphasis on young scientists. It's the key, because I do believe that the community of agricultural research and development specialists has an aging population and we have difficulties to identify young scientists there. I just want to mention that within the GFAR, there is also an initiative YPAD, which is the young platform on agricultural research for development. I would also recommend to look at that platform and to try to facilitate the participation of our young scientists to this young platform because that's not only for research, but is for all categories of stakeholders and then the young speaking to the young as you have mentioned. That is something that's also very effective. So I am just sharing the experience and information. Thank you.

Masami Yasunaka: Thank you.

Masaru Iwanaga: Thank you very much for your good presentation. Following up Christian's question, I have actually one question. J-FARD, it was established in 2004. Do you think it has been successful? If not, why not? If it has been successful, give me three concrete points why you think it is successful.

Satoru Miyata: Okay. First my answer is very clear: not so successful, but I can say it was better than nothing. Some case it was useful but not so successful. So the reason is that we could not provide good resources, including human resources and financial resources to J-FARD. Likewise, ideas and knowledge to initiate activities were not enough. So this year, Suzuki-san from the Ministry of Agriculture gave us some small fund to support this kind of activities. So gradually we'd like to improve the activity of J-FARD.

Masaru Iwanaga: Just following up that point. This afternoon, we talked with three speakers. All talked about networks in different context and sometimes a different definition. And if they are working or if there's a major challenge, always these three speakers mentioned about the financial aspect. And I don't see a clear prospect in that aspect. Unless as the previous speaker mentioned, you will provide an opportunity of clear linkage with policy makers.

Masami Yasunaka: As Dr. Iwanaga mentioned, three presenters described three kinds of network this afternoon. These are materials to discuss further and we'd like to have one more presenter.