

20 Years of JIRCAS



1970 – 1993
Tropical
Agriculture
Research Center

➔



1993 – 2013
Japan International
Research Center for
Agricultural Sciences

(23 + 20 = 43)

※ This year also marks the 120th anniversary of national agricultural research in Japan.

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DGs and Presidents of JIRCAS



Dr. Keiji Kainuma
1993-1996



Dr. Nobuyoshi Maeno
1996-2001



Dr. Takahiro Inoue
2001-2003



Dr. Mutsuo Iwamoto
2003-2005



Dr. Shinobu Inanaga
2005-2007



Dr. Kenji Iiyama
2007-2011



Dr. Masa Iwanaga
2011-

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1993 ➔ 2001 2006 2011 Now

MAFF Research Institute

New Challenges from TARC to JIRCAS

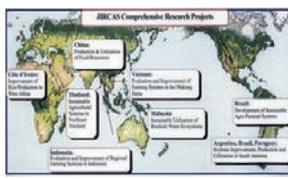
1. Comprehensive approach
2. Research activities at home
3. Information systems
4. Closer collaboration
5. Capacity building



New buildings (1994, 1995)



X-ray photoelectron spectroscopy



JIRCAS Comprehensive Research Projects

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JIRCAS Comprehensive Projects	Time Flame	Research Site
Brackish water ecosystems	1955-1999	Malaysia
Farming systems in the Mekong Delta	1954-1998	Vietnam
Sustainable agriculture in NE Thailand	1995-2001	Thailand
Agro-pastoral systems in Brazil	1996-2002	Brazil
Food resources in China	1997-2003	China
Soybean research in South America	1997-2006	South America
Regional farming systems in Indonesia	1998-2002	Indonesia
Rainfed rice systems in West Africa	1998-2002	Côte d'Ivoire

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1993 2001 ➔ 2006 2011 Now

Independent Administrative Agency
Introduction of PDCA cycle evaluation
The first Medium-term Plan



New facility in Okinawa
(2003)



Start of J-FARD (2004)



CGIAR Focal point institution
(2004)

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1993 2001 2006 ➔ 2011 Now

Project based management: 33 projects
The second Medium-term Plan

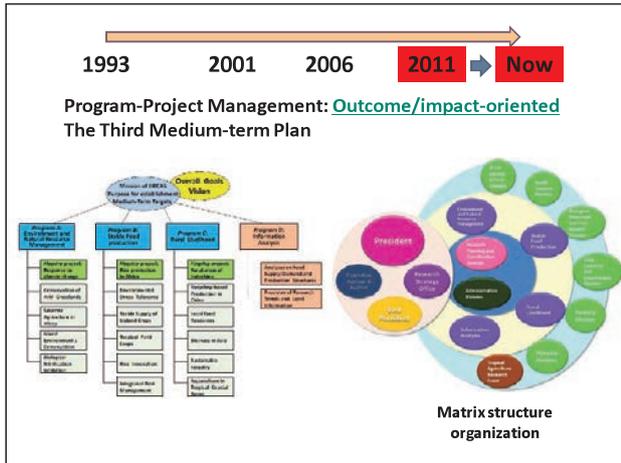


Succession of J-Green Projects
(2008)

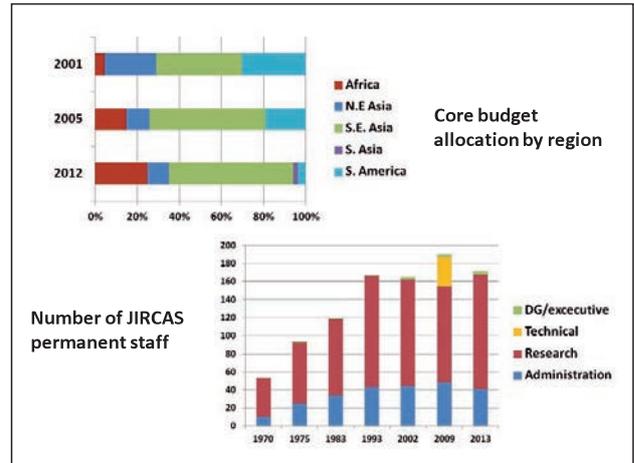


AFRICA Liaison Office in Ghana
(2009)

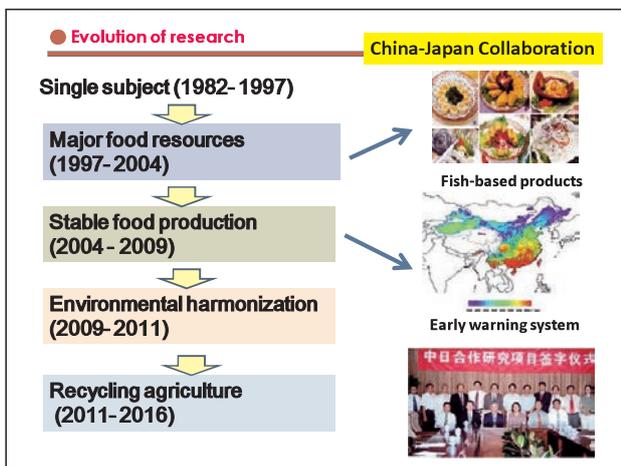
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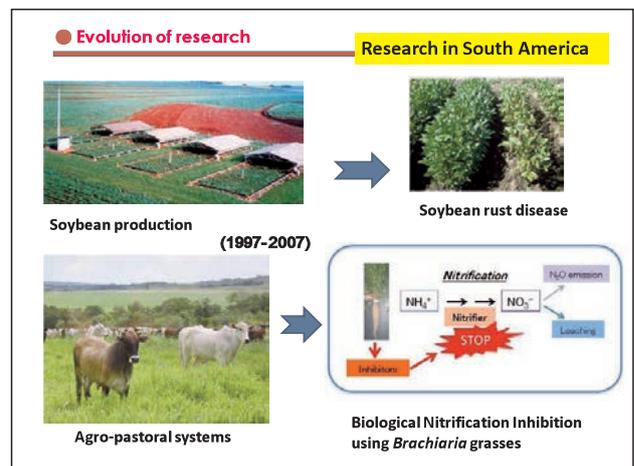
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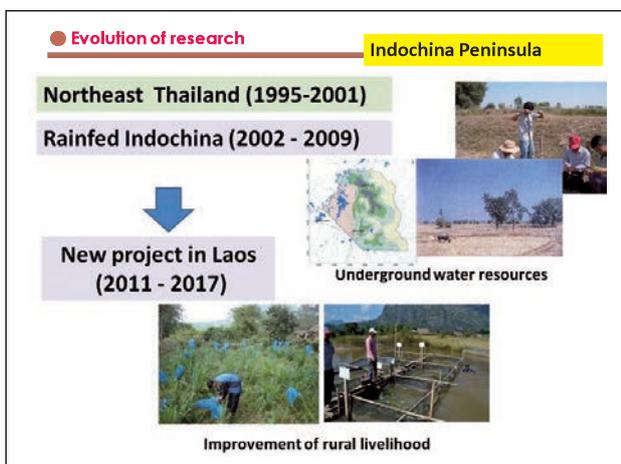
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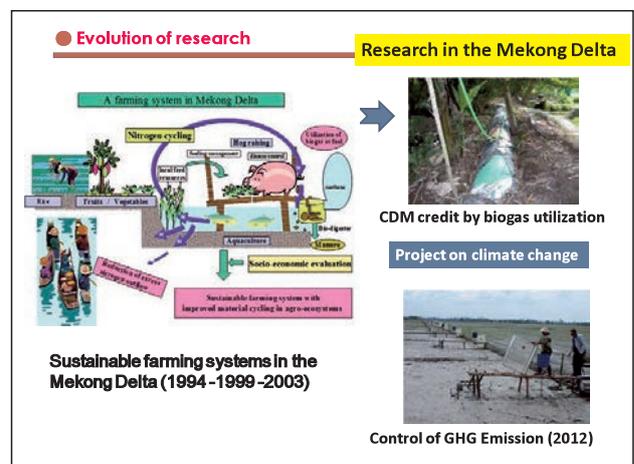
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Evolution of research **Rice Research in Africa**

Rice Productivity (1998-2002) Cote d'Ivoire
 Breeding and Physiology (2004-2006) Guinea, Mali -> Nigeria
 Stress-tolerant NERICA (2006-2008) Guinea, Nigeria, Benin
 CARD 2008-18
 Variety Evaluation of Africa Rice (2009-2010) Benin
 Africa Inland Flooded Valley (2009-2010) Ghana
 Africa Rice Promotion (2008-2011) Ghana, Ethiopia (MAFF Project)
 Rice Production Technologies for Africa (2011-2015) Ghana, Benin

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Evolution of research **Other research in Africa**

Soil fertility project (2003-2008)
 Cultivated after fallow band
 Cultivated continuously
 Africa Strategy 2008
 Fallow band system
 Preventing Soil Erosion
 Cowpea
 Soybean-maize system

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Evolution of research **Postharvest and biomass**

Postharvest losses project (2000 - 2004)
 Indigenous vegetables
 Food technologies
 Evaluation of unused materials
 Industrial Applications

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Evolution of research **Forestry projects**

Tropical forest
 Agroforestry technology (2000-2006)
 Management of teak plantations

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Evolution of research **Stress Tolerant Crops**

Gene discovery using Arabidopsis
 Global collaboration
 Transgenic rice
 Field test in CIMMYT

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Evolution of research **Shrimp Aquaculture**

Basic research on giant freshwater prawn
 Green water mini-hatchery
 Rice - shrimp system
 Indoor Shrimp Production System

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Evolution of research Data analyses

Statistical analyses and econometric models 2020

Geographic information system (GIS)

Thailand ← Ghana →

Flood probability Map

Heat tolerance

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TARF (Tropical Agriculture Research Front) in Okinawa

Sugarcane

Environment

Heat tolerance

Tropical fruits

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Programs for Capacity Development

Visiting research fellowship program

Award for young foreign researchers

Trainings and visits

Program for young Japanese researchers

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Certificates of Appreciation and Scientific Awards

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JIRCAS International Symposia

World Rice Conference (2004)

Africa Strategy (2005)

Dr. Borlaug (2006)

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Themes of JIRCAS International Symposia 1994-2013

1	1994	Tropical fruit	11	2004	Rice is life
2	1995	Weed management	12	2005	Productivity in Africa
3	1996	Bio-safety tests	13	2006	Desertification Dr. Borlaug
4	1997	Environmental conservation in Asia	14	2007	Collaboration and capacity- building
5	1998	Postharvest technology	15	2008	Climate change
6	1999	GIS applications	16	2009	Social sciences
7	2000	Sustainable development	17	2010	40th anniversary
8	2001	Water	18	2011	Rice(GRISP and CARD)
9	2002	Value-addition	19	2012	Resilience
10	2003	Food security	20	2013	Changing Asia

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JIRCAS will continue to exert efforts to achieve our mission,
“to improve agricultural technologies in developing regions”
for the coming decades.



Thank you for your attention.

Chair Koyama: Let's move to put up our nostalgic slide show for celebrating the 20th anniversary of JIRCAS. We squeezed our 20 years' history in 25 slides in 15 minutes; that means it doesn't cover all our history, but please enjoy. And the narration will be done by Dr. Marcy Wilder, a JIRCAS scientist. She is really one of the most famous scientists in JIRCAS. And she has been working with us for 19 years, so about 20 years. Marcy-san, please.

Dr. Marcy Wilder: In October 1993, 20 years ago, JIRCAS, the Japan International Research Center for Agricultural Sciences, was established following the reorganization of TARC, the Tropical Agriculture Research Center. This year also marks the 120th anniversary of national agricultural research in Japan. It is always good to look back at our history in order to foresee into our future.

JIRCAS has had seven director generals and presidents in the past 20 years. It is because of their hard work that we are gathered here today.

For the first seven years, JIRCAS was a national institute directly under the jurisdiction of the Ministry of Agriculture, Forestry and Fisheries, or MAFF. There were many challenges faced at the time of transition from TARC. A large amount of investment was made for new buildings and research facilities. We had to develop new ways of implementing collaborative research. A comprehensive approach or, in other words, a multidisciplinary approach was thought to be appropriate in order to solve problems at the field level.

A number of so-called comprehensive projects were financed and implemented. They formed a sound basis for JIRCAS's subsequent phase of research activity.

In April 2001, JIRCAS was transformed into an independent administrative agency through the process of government reform and a new research evaluation system was introduced. At the same time, flexibility was given to the management.

In 2004, JFARD, the Japan Forum on International Agricultural Research for Sustainable Development, was organized, and JIRCAS was nominated to be the CGIAR, Consultative Group on International Agricultural Research, focal point institution in Japan.

In the second medium-term plan period, 2006 to 2011, JIRCAS introduced complete project-based management in advance of its sister MAFF organizations. All research activities were conducted in the form of 33 research projects, where goals and schedules were clearly specified.

In 2008, JIRCAS took over several agricultural development projects from J-Green, an independent administrative agency. Thirty-six new colleagues joined JIRCAS, and activities at the field level, particularly in Africa, were strengthened. In addition, the Africa liaison office was opened in Ghana in 2009.

In 2011, JIRCAS commenced its current medium-term plan and continues to make real changes in the field in developing regions.

Three research programs, namely, environment and natural resource management, stable food production, and rural livelihood, as well as an information analysis program, are expected to make our research activity more relevant to the world's global research and development agenda.

Regional allocation of JIRCAS's core budget, research budget, has become more flexible since the administrative reform. The budget for Africa has increased during the past two decades, while that for China and South America has decreased.

Our staff numbers have not increased, although total activities, including those that are funded externally, have expanded.

During the past 20 years, our research activities have diversified and evolved. On the other hand, however, JIRCAS has maintained long-lasting collaborations in various regions.

In China, JIRCAS has kept up excellent relationships with Chinese institutions by implementing research projects based on mutual interest and benefit. Food processing research is also one topic that we have continued for many years.

In South America, large-scale projects were implemented in earlier research. Ongoing researches, such as that on soybean rust disease and on tropical grasses, are based on past research results.

On the Indochina Peninsula, JIRCAS worked in Northeast Thailand for many years. The results and experiences obtained there are currently being utilized in Laos.

Long-lasting comprehensive research in the Mekong Delta provided the base for an on-going project on the mitigation and adaptation of climate change in Vietnam.

In Africa, a collaboration with AfricaRice, a CGIAR research center, has continued despite social unrest in Cote d'Ivoire and other places. Now JIRCAS is playing an important role in the Coalition for African Rice Development, a TICAD, or Tokyo International Conference on African Development, initiative.

In addition to rice, JIRCAS has expanded the scope of its activities in Africa. Several new research subjects related to yam, cowpea, and conservation agriculture have been implemented based on effective strategies previously developed by JIRCAS.

Studies on postharvest issues, including biomass utilization, is an area that has been strengthened and has seen much progress during the past 20 years. Technology for bio-ethanol production from old palm trunks is now being commercialized.

A series of studies for enhancing the biodiversity and sustainability of tropical forests were conducted in Malaysia, the Philippines, and Thailand. Agro-forestry technologies were developed and the management of teak plantations was studied.

The development of abiotic stress-tolerant crops was one of JIRCAS's highly successful projects. A number of influential scientific papers was produced and transgenic plants are now being tested in various fields around the world.

The development of several shrimp culture technologies at JIRCAS has also received much attention. Various endeavors, from basic research to business applications, have been carried out.

Socio-economic analysis and geographic information systems are now indispensable components for most JIRCAS research projects. Although only a few researchers are involved in such studies, they have established a sound comparative advantage in selected areas.

Research at TARF, the Tropical Agriculture Research Front, on Ishigaki Island in Okinawa Prefecture, has also diversified and changed during the past 20 years. The researchers there are now involved in many overseas projects, taking advantage of their location in the sub-tropics.

JIRCAS has strengthened programs for capacity development of young researchers from both developing countries and from Japan. The Japan International Award for Young Agricultural Researchers commenced in 2007.

JIRCAS has received many certificates and letters of appreciation from various governments and institutions for its contribution during the past 20 years. In addition, many staff scientists, especially women researchers, have obtained awards for their prominent work.

Every year, JIRCAS organizes an international symposium, in addition to its many project-based conferences. In 2004, the International Year of Rice, JIRCAS hosted the World Rice Research Conference in Tsukuba. In 2005, a research strategy for Africa was discussed and reviewed by many key scientists from all over the world at this venue. In 2006, the late Dr. Ernest Borlaug, a Nobel Peace Prize laureate, gave a lecture to young Japanese researchers.

Over the course of 20 years, a variety of themes has been pursued in the JIRCAS international symposia aiming to deal with the most relevant and timely issues regarding agricultural technology development in the world.

JIRCAS will continue to exert efforts to achieve our mission: “to improve agricultural technologies in developing regions” in the coming decades.

Thank you for your attention and for all of your support given to JIRCAS.