

EXPECTATIONS FOR THE RESEARCHERS TOWARD AGRICULTURAL DEVELOPMENT

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ABSTRACT

To promote social and economic development, technological innovation and extension are essential. In developing countries, they are particularly important in agricultural sectors as most of those countries are mainly dependent on agriculture. Japan is expected to make contributions in this area, taking its technological advantage, so that the developing countries themselves will have sufficient capacity and proper ownership in promoting research and extension activities.

The Millennium Development Goals (2000) announced the will of international society to halve the population in hunger and poverty by 2015. The actual situations in developing countries endorse the increasing importance of technical cooperation in agricultural development. In working for this area, it is necessary to monitor continuously whether the supports have made effective contribution to the issues and problems in the recipient countries.

To promote Japan's international cooperation, those who are engaged in the agricultural research are expected to make further contributions by:

- conducting domestic research activities that may provide benefits to the developing countries;
- participating in research projects in developing countries to establish/strengthen their research systems and to achieve the specific research goals; and,
- participating in projects and other cooperation schemes in developing countries of more applied and/or practical natures to address the various problems on sites.

These efforts should be made on a demand-driven basis instead of supply-driven, with proper consideration of the development stages and needed levels of technologies. Also, the attentions should be paid to the emerging "programme-approaches", in which synergy effects are expected from linkages between various development tools and schemes. For example, the possibility of collaboration should be pursued among mutually-related projects and/or international organizations on agricultural research.

This speech will review Japan's research-related cooperation in the past and present with some specific cases, and examine:

- how researchers have been involved in development efforts;
- what organizational linkages have functioned well;
- how researchers' experiences have been accumulated in terms of development activities; and,
- what are the characters and abilities of researchers expected from development society.

Also, the speech will introduce the recent efforts and future directions of JICA's cooperation, as well as the expectations for the researchers in this regard.

KEYWORDS

agricultural research, developing countries, ownership, demand-driven, organizational collaboration

Expectations for the Researchers toward Agricultural Development

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Outline

- Key Questions
- Introduction
 - Japan's Development Efforts
 - Research Cooperation for Development
 - Agricultural Development
 - Agricultural Research
- Points to be noted for Agricultural Research Cooperation
 - Organizational Linkages
 - Human Resource Development
 - Ensured Directions toward Real Needs
- Recent Efforts by JICA
- Positive Observations from Past Efforts
- Issues and Future Directions

Key Questions

- What roles does agricultural research play for international development cooperation?
- What problems/difficulties, if any, have been identified in the development efforts related to agricultural research?
- What should be noted for more effective cooperation in the future?
- What are the expectations to the researchers in terms of agricultural development cooperation?

Japan's Development Efforts (1)

- Contributions to the international society
- World peace and stability, which are essential for prosperity of our own country

To this end...

- Grasp and address promptly to the specific needs
- Recognize the importance of human security
- Seek effectiveness and efficiency

Japan's Development Efforts (2)

- Sustainable and self-reliant development of developing countries
 - ← Improve their own capacity to solve problems
- Sharing of knowledge and experiences between developing countries and Japan
- Capacity development through on-site collaborative activities (advantage different from general budget support)
- Competence in technology
- Roles of research to provide appropriate technology

Capacity Development through on-site Collaborative Activities



Research and Development Center Project on Sustainable Agricultural Technology (China)

Strengthening Farmer Support System through Farmers Research Group Activity (Ethiopia)



Research Cooperation for Development

Goal is ... contribution to actual development

- Beyond mere collaborative research
- Promote appropriate technologies
- Linked with extension activities
- Build capacity to enable self-sustained development

Agricultural Development

Focus on ...

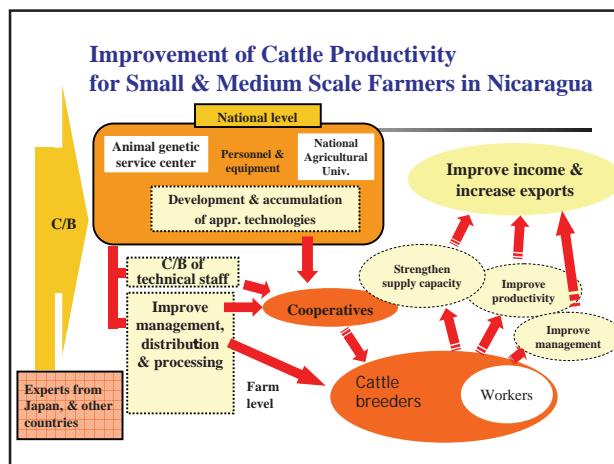
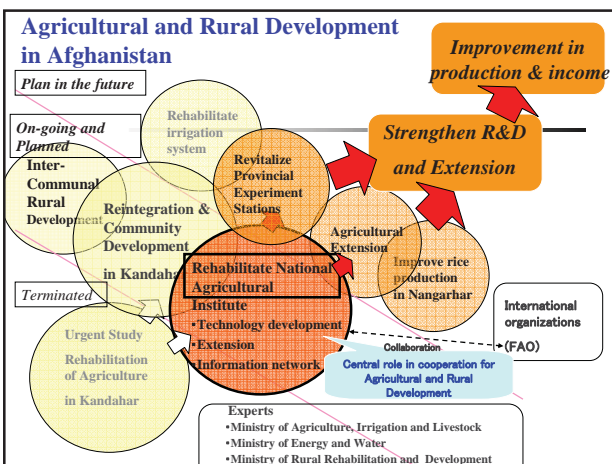
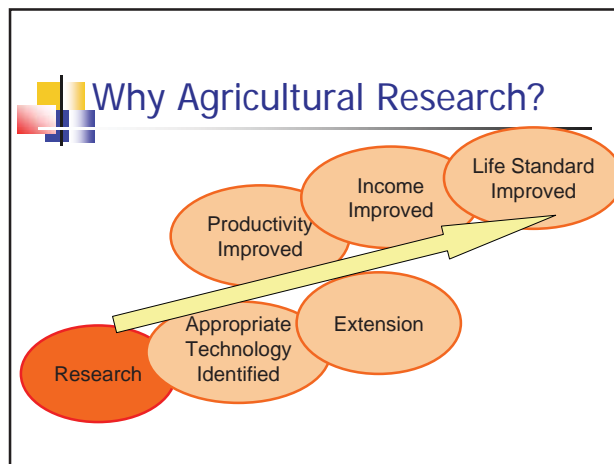
- Poverty reduction
 - ← Millennium Development Goals (MDGs)
- Rural development aspects
 - ← Integrated approach rather than simple production improvement
- Ensuring specific benefits to the targeted beneficiaries

Recent attentions

- Participatory approach, human security
- Africa, Peace-building
- Contributions to global issues

Why Agricultural Development?

- In most developing countries...
 - Majority of population engaged in agriculture
 - Majority of population in poverty found in rural areas
 - Agriculture as core national sectors
- Cooperation for agricultural development ...
 - Food security
 - Poverty reduction, economic development



Points to be noted for Agricultural Research Cooperation

1. Effective linkages among relevant organizations
research institutes / development agencies
national / international
2. Human resource development for research cooperation
3. Ensured directions toward real needs

1. Organizational Linkages

- National entities
 - Ministries
 - Research institutes and universities
 - Implementation agencies for development cooperation
- International entities
 - International research institutes (CGIAR)
- Bilateral efforts with developed countries
 - Inter-governmental agreement, arrangement, etc.
- Bilateral efforts with developing countries
 - Collaboration among research institutes
 - Development cooperation

JICA's Intervention of NERICA



1. Experts to WARDA
2. Expert to Uganda
3. Experimentations conducted by the existing agric. projects
4. Technical seminars held in AICAD of Kenya

JICA Advisory Committee on NERICA

Consisting of members from various entities

- Japan Association for International Collaboration of Agriculture and Forestry (JAICAF)
- FAO liaison office in Japan
- National Agriculture and Food Research Organization (NARO), also representative from WARDA
- Tokyo University of Agriculture
- Foundation for Advanced Studies on International Development (FASID), International Development Research Institute, also representative from IRRI
- Japan International Research Center for Agricultural Sciences (JIRCAS)
- Sasakawa Africa Association

Other Supports on NERICA

MOFA

Fund provision through international organizations (support to research & extension by WARDA/ARI), grant aid

MAFF

Variety testing implemented by JAICAF, in Ghana & Benin

Int'l organizations

- WARDA/ARI (production increase)
- AfDB (financial support to extension)
- UNDP (collaboration with WARDA, breeding with Japan's support)
- FAO (promotion in Ghana, Sierra Leone, Uganda with Japan's support)

JIRCAS

Research in collaboration with WARDA (breeding, extension, seed multiplication)
Researchers in Guinea, Nigeria, Benin, & Senegal

Considerations on Organizational Linkages

- Various linkages have been observed and functioning
- Further efforts to strengthen organizational linkages
- Regional balance should be reconsidered
- Emerging efforts toward official linkages rather than individual

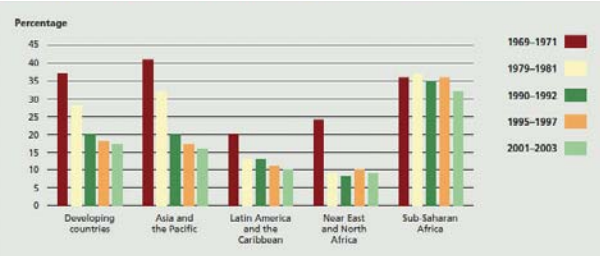
2. Human Resource Development

(Opportunities and Environment for Researchers)

- Proper recognition to cooperation experiences
- Accumulation, generalization and utilization of experiences in development cooperation
- Opportunities for younger researchers
- Regional balance (needs in Africa, etc.)

- Individual efforts → institutional systems
 - Forum for information sharing
 - Trials from implementation agency
 - Units for coordination in universities and research institutes
 - Emerging roles of university for consultancy

Trends in Undernourishment by region



Source: FAO State of Food and Agriculture 2006

Expectations from Implementation Agency

- **Understandings**
 - Development methods (beneficiaries, program-approach, project management, etc.)
 - Development stages and appropriate technology
 - local background
- **Knowledge and management**
 - Intensive (expertise), extensive (bird view), flexible
 - Inter-scholar approach (natural sciences vs. social sciences)
 - Management in insufficient environment
- **Individual capacity**
 - Language and other communication capacity
 - Physical toughness and sound passion

3. Ensured Directions toward Real Needs

- Proper grasp of needs through "*field-oriented approach*"
 - Observe issues and situations locally, closely & properly
- Monitoring & feedback
 - Continuous efforts to correct (assessment at various stages)
- Transparency for process and outcomes
 - Quality controls through transparency

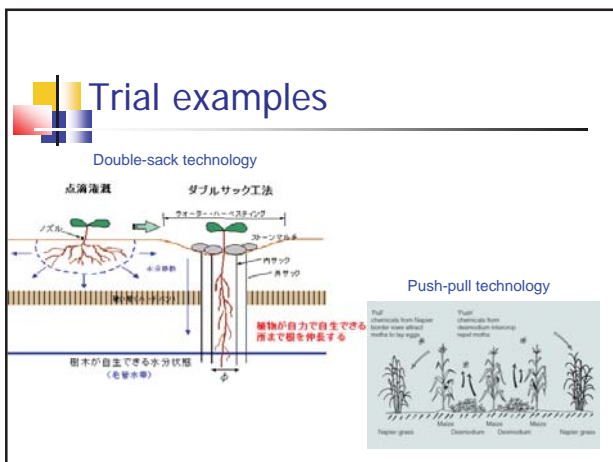
※ not specific for research cooperation

Recent Efforts by JICA

- Enhance strategic approach
- Ensure proper consideration of needed levels
- Re-recognize importance of technology
- Address both Micro and Macro (from community issues to global issues)
- Strengthen relationship with universities
 - Consultancy
 - List of potential appropriate technologies

List of potential Appr. Technologies & Collaboration with University

- Issues
 - Potential appropriate technologies in research target in universities, applicable in developing countries
 - Potential human resources in universities
- Actions
 - Broad reviews on candidates for potential appropriate technologies through available network
 - On-site demonstrative applications
- Examples
 - Double-sack technology for dry-land
 - Push-pull technology for plant protection



- ## Positive Observations from Past Efforts
- Solid basis of expertise in experts
 - Strong supports through network (from individuals to institutions)
 - Rare negative impacts from political shift
 - Positive recognitions for researchers' attitudes specially for on-site collaborative work

- ## Issues and Future Directions (1)
- Often distant for real benefits to people in need
 - *strategic efforts (program-approach, involvement of wider stakeholders)*
 - Relatively weak impacts on policies and/or systems
 - *more involvement of policy makers*
 - Strategies for time-consuming capacity development
 - *Shared mid/long term views on capacity development*
 - Perceptions of counterparts (individual capacity vs. institutional and social capacity)
 - *improvement of perception and social systems*

- ## Issues and Future Directions (2)
- Some cases with weak focus on capacity development
 - *more clarified principles of research cooperation for development*
 - Relatively weak in project management
 - *improved management capacity in a expert team*
 - Often associated with provision of facilities and/or sophisticated equipment
 - *consideration for their sustainable use with enhanced local supply and proper maintenance*