JICA’s Approach to Global Food Security
“Development Collaboration for Rice and Tropical Savannah in Africa”

HANAI Junichi
Department of Rural Development
Japan International Cooperation Agency

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Japan’s ODA and JICA’s Role

![Diagram of Japan’s ODA and JICA’s Role](Fig.1 Japan’s ODA and JICA’s role)

Official Development Assistance (ODA)
- Bilateral Aid
- Technical Cooperation
- Loan Aid (ODA Loan) (Private-Sector Investment Finance)
- Grant Aid
- Multilateral Aid

Fig.1 Japan’s ODA and JICA’s role

![Diagram of Fiscal 2008 JICA’s Program](Fig.2 Fiscal 2008 JICA’s Program)

Results of Japan’s ODA in Agricultural Sector

- **Total Amount of Japan’s bilateral ODA** (FY2008, Net Disbursement Basis): 17,453M$ (Agricultural Sector: 1,043M$ (5.7% of the total amount))

- **Amount of ODA in Agricultural Sector by type of cooperation** (FY2008, Commitment basis)
  - Technical Cooperation: 205M$ (19.6%)
  - Grant Aid: 130M$ (12.5%)
  - Loan Aid: 708M$ (67.9%)

- **Amount of JICA’s Technical Cooperation in Agricultural Sector (FY2008)**: 19 billion Yen (12.8% of the total)
  - Asia: 6.9 billion Yen (35.9%)
  - Central and South America: 3.4 billion Yen (18.1%)
  - Africa: 6 billion Yen (31.9%)
  - Pacific: 0.5 billion Yen (2.7%)
  - Middle East: 1.1 billion Yen (5.6%)
  - Others: 1.2 billion Yen (6.9%)

- **Characteristics of Cooperation in Agricultural Sector**
  - Poverty Reduction through Rural Development
  - Human Resource Development such as Researchers and Extension Workers
  - Promotion of Agricultural Cooperatives
  - Development of Agricultural Infrastructure and its maintenance
Importance of Global Food Security

1. Current State of the people undernourished in the world
   • 1 billion of people are undernourishment in 2009. (Increase of 127M people compared to 873M people in 2004~2006)

2. Food Crisis in 2008
   • Sudden rise of food price in 2008 and it remains high until today
   • Reason
     • Population increase of the world
     • Change of food consumption style in emerging countries
     • Competition between agricultural products and crops for bio-energy
     • Negative effect of climate change
     • Soaring oil price (rise of agricultural input price such as fertilizer)
     • Reduction of agricultural investment
   • Serious negative effects on the net food import developing countries and riots occurred in several cities

3. Imbalance of food demand and supply could cause the expansion of hunger in the net food importing developing countries.

Rice Export Price of Thailand and Viet-Nam
August 1987~March 2010, $ per ton, FOB in Bangkok

![Rice Export Price Chart](chart.png)
Coalition for African Rice Development (CARD)

- Jointly proposed by JICA and Alliance for a Green Revolution in Africa (AGRA)
- Officially launched at TICADIV in May 2008
- Objective: Double the rice production in Sub-Saharan Africa within 10 years (from 14M ton to 28M ton)
- What is CARD: CARD is an initiative to support the efforts of African countries to increase rice production. It also offers a framework of consultation and coordination between donors and rice producing African countries.
- What CARD does:
  ✓ Coordination and harmonization of assistance
  ✓ Advocacy for investment
  ✓ Information sharing on rice development

Background of CARD 1

- Expanding Consumption of Rice
  Rice consumption is sharply increasing because of urbanization.

- Suitable Climate for Rice Cultivation
  Rice is originally tropical crop.
  (There is very limited area for wheat cultivation in Africa.)
Background of CARD 2

- **Potential of Productivity Improvement of Rice**
  There is possibility to increase yield per unit with basic technology transfer and inputs such as fertilizer and improved seeds.

- **Suitable Land for Rice Cultivation**
  There are wide undeveloped lowlands.

- **Advantage of Japan’s Cooperation**
  Long History of Rice Cultivation in Japan
  Many experiences on Cooperation of Rice Cultivation in Developing Countries

### Organizations participating in CARD

**<Steering Committee Members>**
- AGRA (Alliance for a Green Revolution in Africa)
- AfricaRice (Africa Rice Center)
- FARA (Forum for Agricultural Research in Africa)
- NEPAD (New Partnership for African Development)
- JIRCAS (Japan International Research Center for Agricultural Sciences)
- JICA (Japan International Cooperation Agency)
- IRRI (International Rice Research Institute)
- FAO (Food and Agriculture Organization)
- World Bank
- AfDB (African Development Bank)
- IFAD (International Fund for Agricultural Development)

**<Organization participating in the CARD general meetings (other than listed above)>**
- WFP (World Food Programme)
- AFD (French Development Agency)
- USAID (US Agency for International Development)
- Gates Foundation, Sasakawa Africa Association, CRS (Catholic Relief Service) etc.
CARD Targeted Countries

Approach to achieve the goal

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

- Selection of 23 targeted countries
- National Rice Development Strategies prepared by the 12 countries of the 1st Group and their policies for rice development shared with donors
- Discussion in progress between the governments and the donors in each country of the 1st group on the possible actions to realize the goal of NRDS

The 3rd CARD General Meeting

(1) Date: 17th May ~ 20th May 2010
(2) Place: Arusha, Tanzania

(3) Themes:
- Progress of CARD/NRDS process by the 1st Group
- Decision on the start of the support to the 2nd Group
(4) Participation of USAID
- The results of “West Africa Rice Value Chain Analysis” implemented by USAID will be shared in the meeting.
JICA's Rice-related Technical Cooperation Projects

Senegal
(1) Project on Improvement of Productivity of Village Irrigation Scheme in the Valley of Senegal
(G) Irrigation program for the area in establishment of Polder

Sierra Leone
(Agricultural Development Project in Kambia District Phase II

Mozambique
(Integrated Agricultural Development Project for Small Scale Farmers in Chokwe Irrigation scheme

Reactivation of Rice Production in Nante, Zambezia Province

Uganda
(1) NERICA Dissemination Project
(2) Sustainable Irrigated Agriculture Development Project in Eastern Uganda
(G) Assistance to Establish the Regional NERICA Rice Research and Training Center at National Crop Resource Institute

Senegal
(Project on Improvement of Productivity of Village Irrigation Scheme in the Valley of Senegal

Guinea
(2) Group of countries for CARD
(1) 2nd group of countries for CADR Cooperation Scheme : (1) Technical Cooperation (G) Grant Aid (L) ODA Loan (I) Individual Expert

Type of technical cooperation projects classified by targeted Rice production system : Irrigation ( ) Rainfed lowland ( ) Rainfed upland ( )

Training courses implemented for government officials in charge of rice development such as researchers, research assistants and extension workers. (Approximately 100 persons per year)

Capacity Development in CARD
a case in Tanzania

- Through Project Activities
  ➢ Introduced **Simple Basic Techniques**
    ✓ In Paddy Fields
    ✓ In the Irrigation Scheme
  ➢ **Voluntary Works** of Farmers
  ➢ **Gender Mainstreaming** as Livelihood Improvement
Capacity Development in the Field

Training of Practical Simple Basic Techniques

Land Preparation  In-line Planting (Transplanting)  Weeding wt Simple Weeder  Post harvest (Threshing)

Farmer to Farmer Approach  Gender Consideration

Field Training

Key Farmers  Village Leaders, Extension Officers
Intermediate Farmers
Ordinary Farmers

Basic Techniques (1/2)
In Paddy Fields

• Good Variety & Good Seeds,
• Good Preparation and Management of Field,
• In-line planting of young plant,
• Early Weeding,
• Proper water management, etc

Early Weeding

In-line Planting from Nursery under Crop Calendar
Basic Techniques (1/2)

In the Irrigation Scheme

- Maintenance
- Planning for:
  - Water Delivery
  - Planting
- Farm Management in the irrigation block level

Good Preparation and Management of Field,

In-line Planting of Young Plant

Maintenance

Planning for:

- Water Delivery
- Planting

Farm Management in the irrigation block level

High Yields from All Fields

Maintenance of Infrastructure

In Tanzania

Good Example in Irrigation Sites:

Training → Voluntary Maintenance

In Japan
Support to Research: Selection of Good Variety

On-farm trial at R.I.

For Supporting Production & Extension of Qualified Seed

Registration of New Variety

Irrigated Land

On-farm trial at Farmers' Fields

Upland

Rain-fed lowland

Economic Impacts

Kids with new shoes and stationary

Hand Tractor
Japan-Brazil-Mozambique Tropical Savannah Agriculture Development Programme

- **Concept:** Constructing a sustainable and competitive agricultural and rural development model with environmental and social consideration through triangular cooperation

- **Agriculture as a key for poverty reduction and economic growth in Mozambique**

- Existence of vast unexploited arable land
  (Only 4% (2M ha) of tropical savannah land (55M ha) is used for agriculture.)

- 80% of the total labor force is engaged in the agriculture sector and optimal use of labor force through improvement of production efficiency and expansion of farmland is needed.

Japan-Brazil Cerrado Agricultural Development Project and its results

1. **What is Cerrado Agricultural Development?**
   - Started in 1976 as a national project of Japan and Brazil in partnership with private sector.
   - Technical cooperation towards Brazilian Agricultural Research Cooperation (EMBRAPA)
   - 6.84 billion yen (of which 2.79 billion yen from ODA) invested for the agricultural development of 345,000 ha of Cerrado zone.

2. **Results**
   - Improvement of Brazilian agricultural research capacity
   - A barren land of Cerrado transformed to one of the biggest grain/food supply source of the world through: land improvement, selection of appropriate crops and breeding, development of cooperatives and partnership with private sector
   - Increase and diversification of agricultural production in Cerrado zone (becoming the big exporter of soybean and development of agribusiness)
Result of the Cerrado Development

Amount of Grain Production (thousand ton)

Source: Y. Hongo based on statistics of CONAB

Basic concept of cooperation

1. Target Area: The Nacala Corridor Area in tropical savannah zone
2. Know-How utilized in the cooperation:
   Brazil - Agricultural techniques for tropical savannah
   Japan - Regional and Integrated agricultural development
3. Work plan:
   The 1st phase (3~5 years): Technical Cooperation
   The 2nd phase: Financial Assistance
4. Points of cooperation:
   - Consideration on environmental and socio-economic condition of Mozambique
   - Improvement of small scale farmer’s agricultural productivity and development of medium and large scale agriculture by the support of private finance
   - Integrated regional and agricultural development of the Nacala Corridor by concentrating the investment on social and economic infrastructure in the region
Thank you for your attention!