JICA's approach to seek synergies between climate change and development

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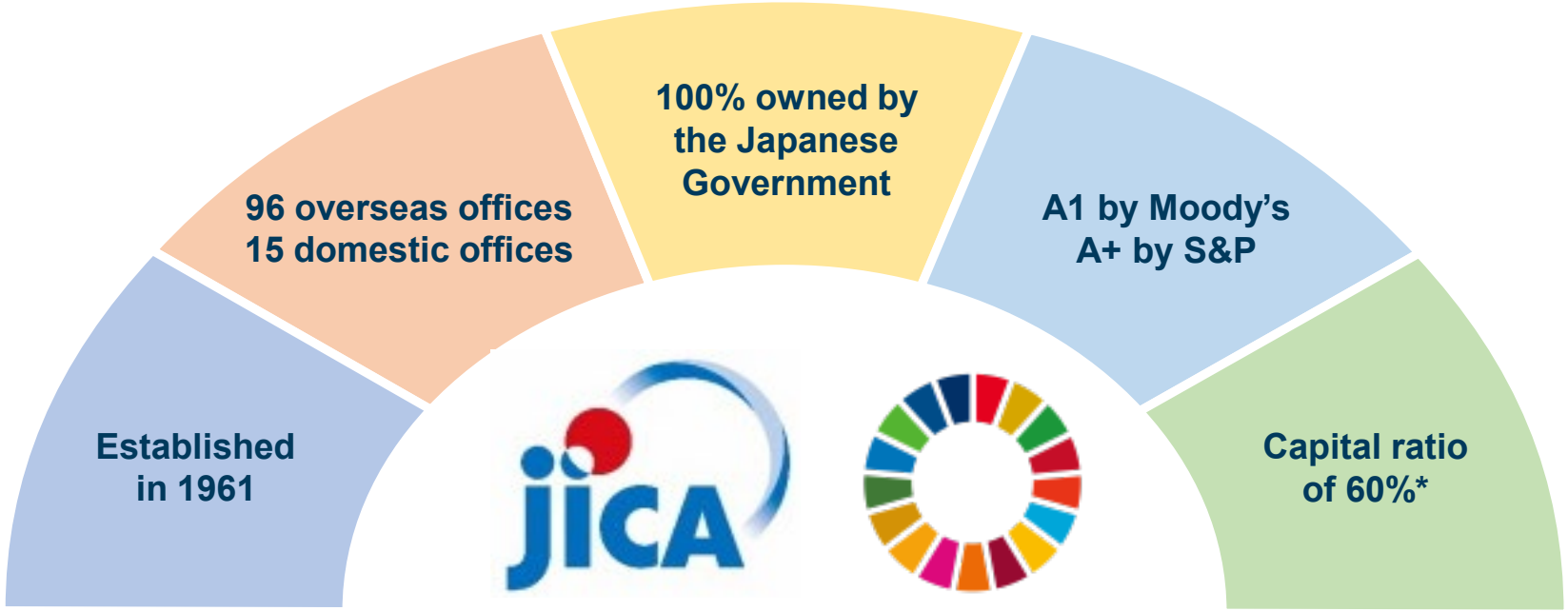
What is JICA?

- One of the World's Largest Bilateral Development Agencies
- Plays a core role in Japan's Official Development Assistance (ODA)



JICA's Mission to work on Human security and Quality growth is aligned with SDGs

Human Security

Peacebuilding

Universal Health Coverage

Gender Equality

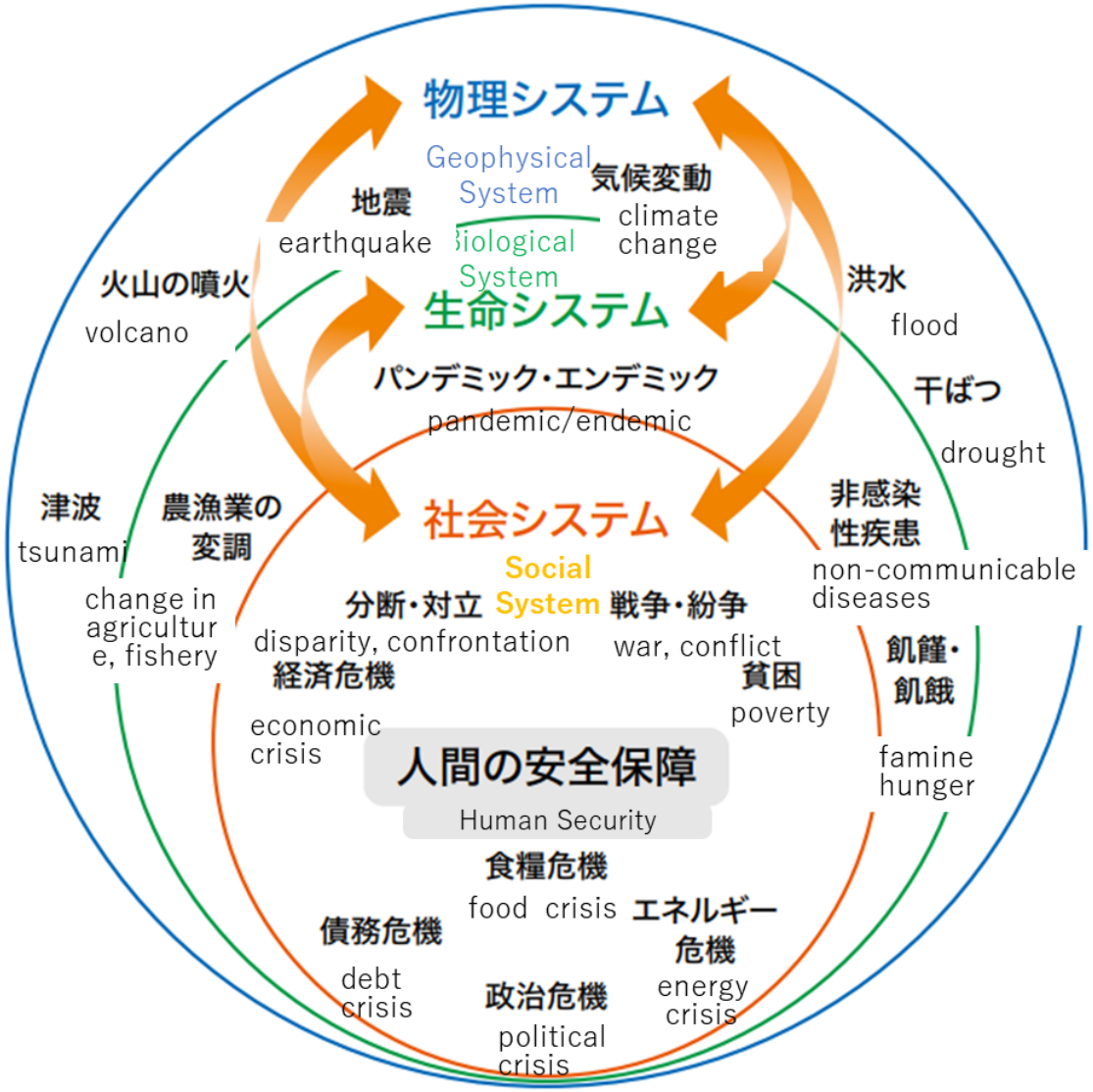
Quality Growth

Sustainable Energy

Resilience

Note (*): As of March 2024
Photos by RENOVA, Inc. (photo for sustainable energy) and JICA

JICA's Co-Benefit Approach for Climate-Resilient Development: Human Security as a Foundation



- ✓ **Climate-Resilient Development**: A comprehensive approach that integrates adaptation and mitigation strategies to support sustainable development for all is essential; this is defined as **Climate-Resilient Development (CRD)**.

- ✓ **Approach by JICA:** By employing a co-benefit approach, JICA's Climate-Resilient Development (CRD) aims to achieve sustainable development for all by maximizing synergies and minimizes trade-offs.

- ✓ **Human Security as a Foundation:** This approach reinforces JICA's mission of human security by empowering individuals to withstand and address various threats posed by climate change.

Seek to understand the compounded crisis

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JICA Matrix for Synergies and Trade-Offs with SDGs

Synergy Synergy and Trade-offs

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
Sport and Development																	
Governance																	
Public Finance and Financial Systems																	
Gender and Development																	
Digital for Development																	
Water Resources and Water Supply																	
Environmental Management																	
Natural Environment Conservation																	
Disaster Risk Reduction																	

Global Agenda				Types of Measurement	Options (Mitigation/Adaptation)		Climate-FIT	SDGs				
	Cluster	Approaches	Indicators		Option	Sub-Option		1.No poverty	2.Zero hunger	3.Good health and well-being	4.Quality education	5.Gender equality
17. Natural Environment Conservation	(1) "Sustainable Natural Resource Management on Land (Forests can Change the World)"	(1) ・In tropical forests, JICA will prevent deforestation and forest degradation in accordance with factors of deforestation in each region (ex. large-scale commercial agriculture and small-scale agriculture by local residents). ・In arid and semi-arid lands, cooperation is provided in forest restoration through introduction of drought-resistant tree species, etc. and in introduction of agroforestry for improving alternative livelihoods. In other areas, including temperate forests, JICA will implement measures against soil degradation, disaster risk reduction through utilizing ecosystems such as forest conservation with refforestation (Eco-DRR: Ecosystem-based Disaster Risk Reduction), development of forest fire information systems, etc. ・In wetlands, JICA will conserve and restore the ecosystem, including the establishment of an integrated management system at the basin landscape level. In peatlands, we will also work on mapping, monitoring, preventing soil drying,	(1) By 2030, the structures of more than 40 central/local government institutions responsible for terrestrial nature conservation will be strengthened and 10,000 administrative	Mitigation/ Adaptation	Area-based Management	1 Reducing GHG emissions and impacts of climate change through conservation and restoration of areas with high importance in conservation, such as sanctuary (including wetland, peatland, OECM [Other Effective area-based Conservation Measures], etc).	Methodology Sheets: (Mitigation) 1. Afforestation Calculation Sheets: (Mitigation) 1. Afforestation Methodology Sheets: (Mitigation) 2. Countermeasures for Deforestation and Forest Degradation Calculation Sheets: (Mitigation) 2. Countermeasu	⇩ If poverty relief measures are not implemented at the same time, it may lead to competition over lands and decrease in economic benefits, resulting in increase in poverty. ⇧ As the livelihood of vulnerable communities are more dependent to natural resources, conserving it can	⇩ Depending on the conservation area it may lead to competition over lands and decrease in agricultural production. ⇧ As the livelihood and food resources of vulnerable communities are more dependent to natural resources, conserving it can contribute on reducing the poverty and	⬆ Generally, air cleaning through greening environment leads to enhancing health.	↑ Conserving and restoring forests and green space in urban areas will increase opportunities and strongholds for environmental education.	↑ ↓ Women's participation or non-participation in decision-making process will increase or diminish gender equality.

Image of further details

Case1: Minimizing trade-offs while maximizing synergies related to health and GHG emission through JICA's Co-benefit approach

Project Outline

- Formulation of a sustainable business plan for promoting appropriate treatment of sewage and sludge
- Building a climate resilient wastewater system by rehabilitating assets

↑Sewage treatment plant and stabilization ponds

The area where sewage system has been implemented

Relay pumping station facilities

Case1: Minimizing trade-offs while maximizing synergies related to health and GHG emission

JICA is integrating Co-benefit approach into project formulation of this project. In this project, measures to address trade-offs were formulated.

Setting inappropriate sewage rates (i.e., too high fee structures) will hinder access to sanitation services for the poor.

⇒Formulation of poor-sensitive system considering cross- subsidy and improved funding mechanisms and setting appropriate fees

Rising sea levels exacerbate sea water infiltration of sludge drying beds, preventing sludge treatment and increasing methane gas

⇒Plan and implement rehabilitation work

Case2: Disaster Risk Prevention
The Project for the Formulation of a Master Plan for Comprehensive Inland Flood Disaster Management in Maputo and Matola Cities(Mozambique)

Outline of the project

The project contributes to the reduction of the risk of inland flooding in Maputo and Matola cities by formulating a master plan that contributes to the reduction of the risk of inland flooding, including development of regulations, etc.

Points	
Effects of climate change (causes of inland flooding)	● Floods occur almost every year, and their frequency and intensity are expected to increase in the future. ● Rapid urbanization, population growth in urban areas, and uncontrolled urban development have prevented flood countermeasures from keeping up, contributing to the spread of damage (Scattered depressions was functioned as reservoirs and wetlands as floodplains, but rapid development in these areas is causing new risks).
Measures	● Assessment of inland flood risk, formulation of Master Plan, and identification of priority areas with a high risk of inundation. ● Pre-Feasibility Study implementation in priority areas. ● → Control of unregulated development is essentially required. But there are many issues that need to be resolved, such as strengthening the governance structure.

The appearance of long-term flooding in living quarters. Since 2022, the flooded area has been expanding.

The drainage network is being maintained on its own, but there are many discontinuities and flooding.

Further Support: Urban Development

Conventional Urban Development and Development Master Plan

Reviewing
- Act on Urban Planning, Development, and Maintenance
- Related Policies

Planning／Designing
- Future Vision of Cities
- Consensus building
- Priority of subfields
- Strengthen planning capabilities

Realizing
- Regulations
- Priority of individual public utilities (Fund Cooperation, Technical Cooperation)
- PPP and Private Investment

Responding to climate change / Responding quickly to enormous infrastructure needs / Promoting DX

Urban Development and Development Master Plan （M/P） 2.0

Reviewing

- Policy judgment materials are rapidly proposed

Planning／Designing

- Visualization of contributions to climate change mitigation
- Accelerate the formation of priority projects (financial cooperation, technical cooperation) at the mid-survey stage
- Strengthen finance (tax revenue base, return of development profits, bonds, etc.)
  - Preliminary study on speeding up land acquisition through urban development schemes

Realizing

- Visualization of progress and results through the use of new technologies such as digital technology and data
- Residents are easy to participate in and agree to form
- Shortening the PDCA cycle

Further Support: Agriculture Development

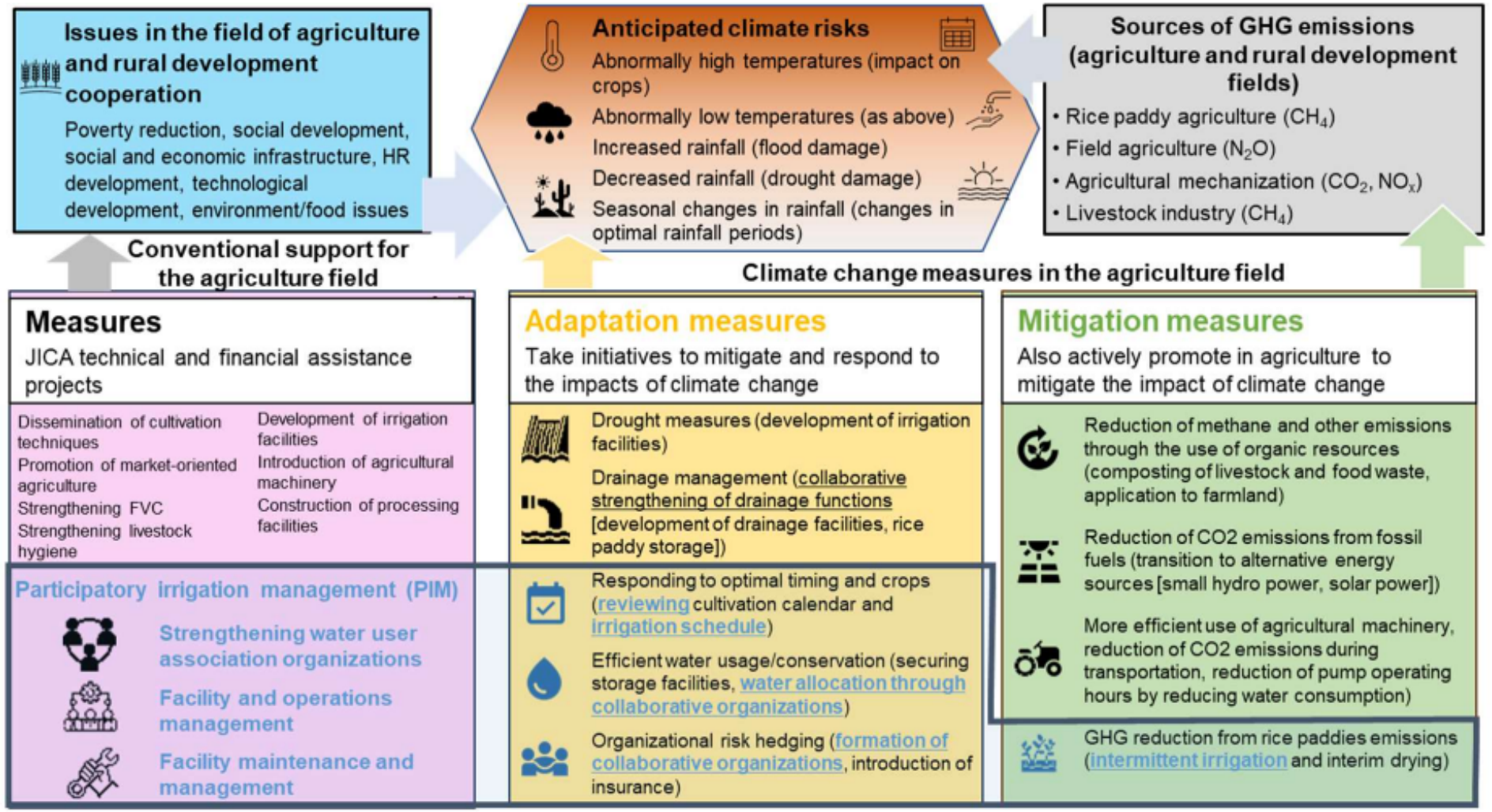

Fig. 8 Conceptual diagram of agriculture and rural development and climate change measures

Ref:Strategy for Climate Change Measures in Agricultural and Rural Development Cooperation

Thank you
for your kind attention