

Co-Chairs' Summary of the Seventh General Meeting of CARD

Tokyo, Japan, 02–04 October 2018

The Seventh General Meeting of the Coalition for African Rice Development (CARD) was convened in Tokyo, Japan on 02-04 October 2018. The Meeting was attended by participants from 20 partner organizations/ institutions, three non-sub-Saharan African countries as South-South Cooperation partners, eleven private corporations, 22 current CARD member countries, and nine new CARD member countries.

The Meeting affirmed the significant progress made in rice production in Sub-Sahara Africa since 2008 that resulted in 93% achievement (from 14 million in 2008 to 26.1 million metric tons: estimated figure for 2018) against the overall goal of CARD (doubling rice production to 28 million metric tons in 2018). This achievement resulted from both the constant expansion of cultivated areas and the yield increase. However, the yield increase was not sustained throughout the CARD period because several attributes such as policy measures and government support were not consistent and/or strong enough. In addition, rice consumption is increasing at a faster pace than that of production, thus the demand-supply gap has continued widening. The Meeting confirmed the necessity of increased investments and stronger policy measures to close this gap in order to make Africa rice self-sufficient, and that CARD shall continue supporting the governments of its member countries together with other partners.

The Meeting appreciated the overall CARD contributions to the rice sector development at both country and regional levels. Meanwhile, the Meeting also acknowledged several remaining challenges from the CARD first phase such as the low visibility of CARD among the country offices of Steering Committee (SC) member organizations, insufficient coordination with them, roles and responsibilities of stakeholders that are not necessarily well-recognized resulting in insufficient actions, and the limited capacities of the CARD secretariat. It was agreed that these challenges shall be addressed in the second phase of CARD through necessary measures. Taking the recommendations as takeaway for the second phase, the Meeting accepted the results of the final evaluation on CARD, and the CARD first phase was wrapped-up by the Co-Chairs.

The meeting participants exchanged their views in the plenary sessions on policies to promote rice sector development and private rice investments. After thorough discussions, the Meeting affirmed; (i) the potential contribution of input subsidy and price stabilization policies to the promotion of rice sector development when implemented appropriately in terms of setting of price, scope of policies and target beneficiaries, (ii) the importance of implementing pricing policies without giving significant

negative impacts on macro economy, market functions and private business operations, (iii) the importance of regional trade perspective for the market- and competitiveness-based rice production growth and the important roles of Regional Economic Communities (RECs) to enhance fair cross-border trade, (iv) critical roles of financing in agriculture development and needs to further enhance agricultural financing through innovative modalities to promote private investment and better financial support system, and (v) the needs of addressing land tenure issue to unlock the limited agricultural investment, and (vi) needs to further accelerate private investments for successful African agriculture and (vii) the needs for African governments to take appropriate policy measures to provide conducive business environment to enhance them, with special attention to (vii) responsible agricultural investments by private sector and the important roles of government to ensure them in partnership with other stakeholders.

The Meeting confirmed that the complex and diverse challenges faced by Africa can be addressed not by a single measure, but only by a set of various solutions provided by respective stakeholders. The best mix of solutions, best approach and mechanism of implementation, and appropriate providers for respective solution vary from one country to another, and the concrete actions and suggested policies need to be elaborated in each country to best fit in its specific contexts. The effective measures to materialize the above-mentioned points can be taken only through collaboration and complementary efforts of concerned stakeholders, and therefore CARD shall continue performing its function as a platform to enhance exchange, interactions and partnership among rice stakeholders in Africa at both national and continental levels.

The Meeting approved the following framework of the CARD second phase: The overall goal will be “(further) Doubling of rice production (from 28 million metric tons to 56 million metric tons – the figure is subject to revision based on the update on the actual figure)” over the period of 12 years from 2019 to 2030. The “RICE” approach will be adopted in the CARD second phase that is composed of; Resilience, Industrialization, Competitiveness and Empowerment, while CARD maintains value chain approach, capacity building and strong partnership with private sector as cross cutting approaches. The operation and management structure of CARD will remain the same as the first phase, consisting of the General Meeting, the Steering Committee and the Secretariat. The Meeting also endorsed to grant the CARD membership to new CARD countries, namely Angola, Burundi, Chad, Congo Republic, Gabon, Guinea-Bissau, Malawi, Niger, and Sudan.

The Meeting also approved the expansion of CARD membership to include the World Food Program (WFP) and RECs in the Steering Committee. However, the procedures for inclusion of RECs would be a subject for further discussions by Steering Committee, because the process should go along with the governance of CARD that is stipulated in the “Operational and Management Guideline of CARD”.

The Meeting delegated the authority to the Steering Committee for the decision on inclusion of RECs in CARD, so that the matter can be handled by the Steering Committee for follow-up along with the revision of the “Operational and Management Guideline of CARD” that is expected to happen before the CARD second phase.

The Meeting also acknowledged the importance of collecting and using reliable data concerning the African rice sector that can guide the government of African countries and rice stakeholders to a right direction. As CARD will put more emphasis on policy advocacy in the next phase, on-going efforts in the area of data collection and use, such as Continental Investment Plan for accelerating Rice Self-Sufficiency in Africa (CIPRiSSA), should be strengthened and expanded in the CARD second phase.

In addition, although the “RICE” approach was generally endorsed, the Meeting decided that details and components that are framed in the “RICE” approach would be further refined at the country level to reflect the specific contexts, needs and visions of each member country. The CARD Secretariat will support the elaboration process when it delivers its country level assistance.

The Meeting Agenda comprised presentations and discussions on the following topics:

1. Overview of CARD and Rice Sector in Africa

In this session, an introductory presentation by the CARD secretariat on “the Overview of CARD and the 7th CARD General Meeting” was followed by the two presentations; “Trends in Rice Production and Consumption during the CARD Period 2008-2018” by Africa Rice Center (AfricaRice), and “Towards Rice Green Revolution in Sub-Saharan Africa” by Professor Otsuka from Kobe University.

The AfricaRice presentation illustrated the increasing trends of both rice production and consumption in Africa in the last ten years, highlighting; (i) 57% of CARD countries have doubled their rice production between 2008 and 2018, based on the estimated rice production of 2018, (ii) 93% of CARD target achieved with the same estimate, (iii) the production increase attributed more by the area expansion rather than the yield improvement and (iv) the increase in rice consumption is faster than that in rice production, leading to the widening demand-supply gap. The presentation was concluded with the remark on the needs of increased investments, further development and adoption of improved technologies, organizing effective rice value chain, and strong policy measures for Africa to be rice self-sufficient.

Professor Otsuka's presentation pointed out that the key for the productivity improvement is the appropriate farm management. Referring to the significantly high rice productivity that has been witnessed in some countries in Africa, the presentation analyzed that trainings to farmers and their adaptation of improved technologies significantly impacts the rice productivity and the impact of training is even spreading. Based on the analysis, the presentation concluded that the most important strategies towards the Rice Green Revolution in Africa are; human capital investments on farmers, extension workers and rice millers, ideally accompanied by some support for mechanization and irrigation investments.

The Meeting acknowledged the remarkable progress that Africa made in terms of rice production, nearly doubling in the last ten years, while the demand-supply gap still continues widening, thus Africa is still far from self-sufficient in rice supply. The Meeting confirmed that further efforts shall be made toward stable rice yield growth in wider areas through the adoption of packages of improved technologies that is best fit in the countries' contexts, and these efforts should be supported by private sector investment, adequate water management, necessary infrastructure, more reliable data and information, and backing-up research. Special attention should be paid to rice quality, and the harvesting and post-harvesting handling, and mechanization is critical in this regards.

2. Review of the First Phase of CARD

The session began with a presentation on a brief summary of the final evaluation on CARD. The presentation covered not only the scope of the final evaluation, but also findings from the evaluation such as impacts of CARD, positive feedbacks and challenges, lessons learned and recommendations for the next phase. The views of stakeholders on the CARD first phase has been generally positives, and CARD is appreciated especially in mainstreaming the rice in the policy, strategy development, and provision of capacity building opportunity as well as provision of opportunities for information sharing among stakeholders. Many informants, however, pointed out the low visibility of CARD especially among SC members' country offices as one of the main challenges that needs to be improved in the second phase. Also it was recommended to clarify the roles of CARD Steering Committee member organizations. The question and clarification session followed the presentation, and the Meeting exchanged the views on not only the evaluation results but also some suggestions for the CARD second phase. Among the points raised by the Meeting are; emphases on resilience against climate change, importance of functional market, partnership with private sector, more activities in knowledge sharing and the CARD contributions to that aspects, needs of regional perspectives for rice

sector development, continuous data collection through existing program such as CIPRiSSA, and more knowledge and information sharing through CARD.

As a part of the review session, a few CARD Stakeholders shared with the Meeting their experiences in the CARD initiative, and their views on the CARD first phase. Country delegates from Madagascar, Kenya and Mali appreciated CARD contributions and impacts of CARD activities on the development of national rice sector, particularly the technical support, policy advocacy and capacity building that resulted in formulation and implementation of rice related strategies and projects, and enhanced rice sector. The three countries expressed their expectation on CARD's continuous support to the countries, especially in accelerating implementation of rice-related strategies and projects, in order for them to overcome remaining challenges in the rice sector.

Two CARD Steering Committee member organizations, namely the Food and Agriculture organization of the United Nations (FAO) and the Japan International Research Center for Agricultural Sciences (JIRCAS), presented their contributions and observations on the first phase of CARD. FAO presented the FAO contributions to the CARD goal in various areas through activities in partnership with CARD and non-CARD organizations/ institutions as well as its projects through Technical Cooperation Programmes and South South Cooperation, among others. After referring to the roles of FAO in rice sector in Africa, the presentation appreciated the progress made by CARD especially NRDS and CARD-Labeled projects. FAO finally pointed out areas that need to be improved in the next phase such as the country-level coordination, support beyond production (e.g. sustainable small- and medium-scale mechanization, post-harvest and marketing) and involvement of private sector in formulating NRDS for coming years. JIRCAS shared with the Meeting the results of their research activities that both directly and indirectly contributed to rice development in the CARD countries. These research topics include breeding, yield improving technologies and resource management, among others. JIRCAS appreciated CARD for its uniqueness that served as the *fora* where partners can interact with common ground, and for provision of tools (e.g. NRDS) for coordination of efforts at the country level. Also clear and inspiring goal of CARD helped anchor rice agenda in member countries, while the roles of technical and research institutions were highlighted and evidence-based rice sector development was enhanced in Africa. JIRCAS suggested that some challenges need to be addressed in the CARD second phase; increasing CARD visibility, collaboration with wider stakeholders in, for instance, market and input development, and improved monitoring and evaluation. It was also suggested that efforts in capacity building should be made targeting not only individuals but also institutions to strengthen "Institutional Capacity".

As the South-South Cooperation partner, the Philippine Rice Research Institute (PhilRice) presented their experiences with CARD to the Meeting, representing the government of the Philippines. The

presentation focused on the South-South cooperation programs that were materialized through the collaboration among CARD, IRRI, JICA and PhilRice. The training programs conducted under this cooperation framework benefited more than 120 rice stakeholders from 24 African countries. The presentation was concluded that the CARD provided the opportunity for the Philippines to contribute to African rice sector and CARD, and to expand its network with African stakeholders.

Several recommendations were made by participants. They were all noted by Co-Chairs, and the Meeting agreed to include these perspectives in the session on the framework of the CARD Second Phase on the Day 3.

3. Open Session on Support Policies for Rice Sector Development

The Meeting had open sessions where participants discussed various policy topics that can help promoting rice sector development and private investment in the rice sector. Open sessions were programed in order to withdraw some useful implications that can guide the policy advocacy and other CARD activities in the CARD second phase. The first session was on “Support Policies for Rice Sector Development” that was composed of “Pricing Policies – Input Subsidy and Price Stabilization”, “Regional Trade and Country Trade Policy”, “The Status of Agricultural Financing in Africa” and “Land Policy”.

Dr. Rashid from International Food Policy Research Institute (IFPRI) made a presentation on input subsidies and price stabilization. After reviewing the fundamental concepts of these policies, policy options and mechanism as well as experiences in Asia and Africa, the presentation elaborated the potential risks and key factors for successful implementation of pricing policies. As a result of discussions, the Meeting acknowledged that input subsidy and price stabilization can be useful tools to enhance rice sector development when the market fails. However, they needs to be implemented in an appropriate manner in order to give expected positive returns, and the keys for success includes; (i) input subsidies accompanied with investments on other fundamentals such as infrastructure, information, capacity building and other support programs for producers, (ii) the appropriate subsidy mechanisms that enhance private business rather than crowd them out, (iii) connecting price stabilization policies with strategic grain reserve and safety net programs, (iv) right timing for starting and withdrawing the policy interventions (the positive return from the investment is one of the key indicators to determine the timing), (v) price setting based on research and analyses on production costs and careful monitoring of market prices, (vi) smart targeting of beneficiaries to avoid excessive financial costs for implementation, (vii) good institution and coordination to balance the effects of

these pricing policies, and (viii) right price setting, subsidy rate, reasonable coverage under the policies, adequate target beneficiaries. The best implementation methods may vary from one country to another, thus they need to be determined in specific contexts and objectives of these policies in respective countries. In conclusion, each country basically has to find the best mix of policy measures for themselves. However, in implementing the pricing policies for both farm inputs and outputs, it is important in most cases that private sector remains the main player in markets, and these policies are implemented in a market-friendly manner.

Common Market for Eastern and Southern Africa (COMESA) made a presentation on the importance of regional rice trade in Africa that enables high potential rice producers to expand their markets and enjoy the economy of scale. The regional trade can also lead to the increased investments that may cause the market- and/or competitiveness-based development of rice sector and integration and development of rice value chain at both national and regional levels. However, in countries where rice is the staple food, policy for rice trade is also the matter for their food security and sovereignty. Therefore in these countries, the balance between regional trade and protection of domestic market should be carefully determined in the given circumstances. The Meeting also confirmed the important roles that Regional Economic Communities (RECs) can play such as; coordination of stakeholders in establishment and enforcement of rules and regulations to enhance fair regional trade, harmonization of standards and quality control, leadership and coordination of governments' and private regional investments in technology and infrastructure that cannot be justified, when made only nationally, because of the insufficient scale merits for investments. Concerning all the points mentioned above, the partnership between CARD and RECs is critically important, and it was recommended that CARD work more closely together with RECs in coming years.

African Rural and Agricultural Credit Association (AFRACA) made a presentation on agricultural financing in Africa, and the presentation was later complemented by the World Bank on "Maximization of Financing for Development". The two presentations elaborated the critical roles of financing in agriculture and value chain development as well as enabling factors of agricultural financing. From both presentations and discussions that followed, the Meeting confirmed the needs to further enhance agricultural financing, especially through innovative modalities to attract private investments such as well-designed Public and Private Partnership (PPP) arrangements and/or risk sharing mechanism. Africa already has a number of best practices and success cases. Therefore these experiences should be thoroughly analyzed and up-scaled through adoptions to other countries with necessary modifications. It is also important for the government to provide fundamental infrastructure, favorable policy environment and good organization of farmers and value chain stakeholders for inclusive financing. Government should also take measures to make agriculture sector less risky and more predictable through coordination of stakeholders and value chain integration.

The World Bank made a presentation on “Land Policy”, pointing out the land tenure as an important factor that determines the investment on agriculture, and its complication that stretched to multi-dimensions (e.g. Legislation, Policies, Culture, Economy). The presentation also suggested potential solutions for land-related issues that have been piloted in the World Bank projects in some countries. The Meeting confirmed that the land tenure is quite critical and common issue in many countries, and Africa needs to unlock the limited agricultural investment caused by the unclear and unstable land tenure and use. The meeting acknowledged that a few attempts have been made to address land issues in some countries, and they need to be scaled up.

4. Open Session on Promotion of Private Investment

Another open session followed with the focus on promotion of private investments in rice sector. The Grow Africa Initiative (GrowAfrica) presented “Rice in Africa – A Private Sector Perspective” with the elaboration of the framework and operations of GrowAfrica aiming to promote PPP and the value chain partnership. GrowAfrica was followed by presentations by two private companies; Intervalle Geneva S.A. and Toyota Tsusho Fertilizer Africa Ltd (TTFA). Intervalle Geneva S.A. presented the regional rice project in West Africa where Intervalle Geneva S.A. coordinates both public and private players across the rice value chain in four countries. The project tries to enhance development and integration of regional value chain through connecting stakeholders and materializing the complementary investments by both public and private parties. TTFA articulated the business opportunities perceived in African agriculture (fertilizer in particular), business operation of TTFA, TTFA’s potential contributions to food security agenda in Africa, challenges faced by the private sector and possible solutions. The Meeting affirmed the needs of further acceleration of private investments for successful agriculture sector in Africa, and the needs to take appropriate policy measures to provide conducive business environment that is composed of; sufficient space for return for private investments, basic infrastructure, predictability and stability in price and supply of farm inputs and outputs. Capacity and information gaps faced by stakeholders in rice value chain can be narrowed through efforts made by both public and private sectors as well as support from development partners in a complementary manner. Among other keys for increasing private investment are; (i) good business models, (ii) consistent supporting policies and good institution for the enforcement of business models, and (iii) infrastructure and technologies bucking up the two other components.

The World Bank made a presentation on “Responsible Agricultural Investment (RAI)”. The presentation pointed out the mixed results of private investments and the potential risks and negative

effects of careless private investments. While acknowledging the overall positive impacts that surpass the negative ones, the presentation claimed the needs to pay close attention to the responsible private investments not only for maximizing the positive impacts but also for minimizing risks and the negative impacts from the private investments. Potential risks and negative impacts include conflicts over land and other resources and impacts on environment, and the Meeting confirmed that government should assume the important responsibility to help ensuring responsible agricultural investments, and their efforts in this regard should be supported by development partners and other stakeholders. It is important to materialize successful private investments that create win-win situation for all concerned parties, and key factors for success include, good governance, robust business plan, fair and transparent negotiation process, and monitoring and enforcement of agreements.

Two presentations were made to illustrate the current government efforts for increased private investments by the country delegates from Cote d'Ivoire and Nigeria. The Ivorian delegate presented the government support to enhance private sector participation in the rice sector, in the area of irrigation infrastructure management, mechanization (mainly with small and medium enterprises-SME) and rice processing and marketing (mainly with large scale investors through the pole approach). The Nigerian delegate illustrated the government interventions at the policy-, macro-, and micro-economy levels that have provided incentives to private sector while lowering the business risks and costs. As a result, Nigeria could succeed in increasing private investments across the rice value-chain, thus significantly increased domestic rice production. These presentations showed that Africa already has success cases in business promotion in agriculture, rice in particular, through PPP. The Meeting acknowledged that the experiences of these countries provided a lot of implications for other African countries to learn and adopt their practices with necessary customization.

The Meeting acknowledged a number of challenges Africa faces, and the needs to address all issues in the rice sector in a comprehensive manner, not by a single measure, but by a set of various solutions. These solutions are related to each other, and therefore, they should be provided in a well-balanced manner by respective stakeholders, and through appropriate approaches. The best sets of solutions and appropriate approaches and balance should differ among countries and they should be determined according to the specific contexts of the respective countries. Therefore, the concrete actions and policy measures to be taken should be further elaborated for case by case, and the Meeting suggested that CARD should contribute to the efforts of its member countries in elaboration of concrete actions and policies, when CARD activities are conducted at country level.

The Meeting reviewed various policy options and experiences from different countries, and concluded that it is necessary to accelerate private investments for successful agriculture in Africa and the government should support them with the appropriate policy measures to provide conducive business

environment since there exist a lot of opportunities for private business to fill gaps in African agriculture as seen in other regions. However, careless private investments can cause negative impacts on economy, society, culture, environment and livelihood of local people. Therefore, the government of host-countries, together with other stakeholders, should develop and enforce the proper investment framework to ensure responsible private investments in agriculture to mitigate the risks while maximizing the benefit from them. These points can be ensured only through collaboration and complementary efforts of concerned stakeholders, thus CARD shall continue performing its function as a platform for exchange, interactions and partnership among rice stakeholders in Africa.

The points mentioned above can serve as general guidelines for the activities in the CARD second phase.

5. Preparation for the Second Phase of CARD

On behalf of the CARD Steering Committee, the CARD Secretariat proposed a framework for the second phase of CARD; (i) the overall goal is to be “(further) Doubling of rice production” from 28 million metric tons (the tentative figure) to 56 million metric tons (the figure is the subject to revision, based on the update of actual figure), (ii) the timeframe is to be 12 years from 2019 to 2030, (iii) the second phase is to adopt the “RICE” approach that is composed of Resilience, Industrialization, Competitiveness and Empowerment components, while maintaining value chain approach, capacity building and strong partnership with private sector as cross cutting approaches, and (iv) the operation and management structure for CARD is to remain the same as the first phase such as General Meeting, Steering Committee and the Secretariat. The presentation also suggested the expansion of CARD membership to nine new member countries, namely Angola, Burundi, Chad, Congo Republic, Gabon, Guinea-Bissau, Malawi, Niger and Sudan. In addition, the presentation suggested the expansion of membership to include the World Food Program (WFP) and RECs in the Steering Committee.

The Meeting made unanimous agreement on the framework proposed by the Steering Committee, and approved it. However, concerning RECs, the procedures and mechanism to include them in the Steering Committee will be further discussed in the Steering Committee meetings, because the process should be consistent to the Operational and Management guideline of CARD for the CARD second phase that will be discussed in the upcoming Steering Committee meetings. The Meeting delegated the authority to the Steering Committee for decision on inclusion of RECs in CARD, so that the matter can be handled by the Steering Committee for follow-up.

The Meeting also agreed on the importance of reliable data concerning rice sector that can guide African countries and rice stakeholders to a right direction. As CARD will put more emphases on policy advocacy in the next phase, on-going efforts in this area such as CIPRiSSA should be strengthened and expanded in the CARD second phase.

In addition, although the “RICE” approach was generally endorsed, the Meeting decided that details and components that are framed in the “RICE” approach would be further refined at the country level to reflect the specific circumstances, needs and visions of each member country. The CARD Secretariat will support the elaboration process when it delivers its country level assistance.

6. Summary of activities by Steering Committee Members

The member organizations of the CARD Steering Committee presented their recent and future activities that are relevant to the CARD initiative and rice sector development in Africa. All presentations by the CARD Steering Committee organizations demonstrated their continuous commitments in assisting rice sector in Africa in their own approaches and cooperation frameworks, based on the competitiveness and strengths of each organization. This ensures better coordination among not only CARD member partners but also the whole African rice sector, and it is necessary to enhance the synergy and complementarity of efforts made by all stakeholders.

Appendix - List of Participating Countries and Agencies

<Governments of Current CARD Member Countries>

Republic of Benin
Burkina Faso
Republic of Cameroon
Democratic Republic of the Congo
Republic of Côte d'Ivoire
Federal Democratic Republic of Ethiopia
Republic of the Gambia
Republic of Ghana
Republic of Guinea
Republic of Kenya
Republic of Liberia
Republic of Madagascar
Republic of Mali
Republic of Mozambique
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

<Governments of New CARD Member Countries >

Republic of Angola
Republic of Burundi
Republic of the Congo
Republic of Chad
Gabonese Republic
Republic of Guinea-Bissau
Republic of Malawi
Republic of the Niger
Republic of the Sudan

<Governments of South-South Cooperation Partner Countries>

Arab Republic of Egypt
Republic of the Philippines
Kingdom of Thailand

<Private Sector Partners>

Fujita Corporation
Japan World Bridge
Intervalle Geneve S.A.
Kanematsu Corporation
Mitsubishi Corporation
Mizuho Information and Research Institute Inc.
Nippon Biodiesel Fuel
Sumitomo Corporation
Toyota Tsusho Fertilizer Africa Limited
Satake Corporation
World Business Consulting

< Development Partners/ Institutions/ Initiatives>

Africa Rice Center (AfricRice)
African Development Bank (AfDB)
African Rural and Agricultural Credit Association (AFRACA)
Agricultural Research Center of Egypt (ARC)
Alliance for a Green Revolution in Africa (AGRA)
Common Market for Eastern and Southern Africa (COMESA)
Food and Agriculture Organizations of the United Nations (FAO)
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
Grow Africa Initiative (GrowAfrica)
International Food Policy Research Institute (IFPRI)
International Fund for Agricultural Development (IFAD)
International Rice Research Institute (IRRI)
Japan Association for International Collaboration of Agriculture and Forestry (JAICAF)
Japan International Cooperation Agency (JICA)
Japan International Research Center for Agricultural Sciences (JIRCAS)
Kobe University
NEPAD Planning and Coordination Agency (NPCA)
Philippine Rice Research Institute (PhilRice)

World Bank

World Food Program (WFP)