Partnership strategy

A systematic overview of partnerships, partnership classification, and partnership approaches under GRiSP/RICE can be found in the GRiSP Partnership report (or see GRiSP 2013b). (http://www.grisp.net/uploads/files/x/000/08f/c98/GRiSP%20Partnership%20in%20Motion.pdf?1361448350)

RICE builds on GRiSP, and continues with most of its partnerships. Together, the six coordinating GRiSP centers (IRRI, AfricaRice, CIAT, Cirad, IRD, JIRCAS) align and bring to the table consortia, networks, platforms, programs, and collaborative projects with about 900 partners from government, nongovernment, public, private, and civil society sectors. About 50% of the GRiSP partners mainly play a role as research partners, whereas the other 50% are mainly development and scaling. A recent (2015) listing of all partners is available on the GRiSP website. At a global scale, GRiSP acts as an overarching umbrella and "organizing principle" for rice research for development. GRiSP facilitates interaction among partners across the globe not only through its combined research agenda and R&D activities but also through workshops, conferences, study tours, and field visits.

1. Partnership principles

In developing and maintaining partnerships, RICE applies the following principles:

- Fostering trust and mutual respect, through long-term and transparent engagement processes and consistent and open communication lines. RICE will continue building on the long-standing and historic partnerships of the RICE centers and GRiSP that have proven fruitful and sustainable over long periods. New partners will be sought in response to new challenges and developments in the research for development arena. To facilitate consistent and open communication lines, the RICE centers will maintain offices with dedicated liaison officers in most of the collaborating countries or regions.
- Sharing a common agenda, with activities coordinated through a mutually reinforcing plan of action. For example, the RICE centers will continue regular bilateral planning meetings with their national partners and multicountry planning exercises through regional bodies (e.g., CORRA, CAADP, and FARA), consortia (e.g., IRRC, CURE, FLAR, and the various Africa-wide task forces), and large bilateral projects (e.g., CSISA and STRASA). Joint work plans will be developed, documented, and reviewed on a regular (often annual) basis.
- Tapping into cutting-edge research skills and capabilities of world-class advanced research organizations. GRiSP already collaborates with many advanced research institutes and universities in western countries, and RICE will continue building on these partnerships. However, it will also increasingly seek to mobilize nontraditional partners, for example, in BIC (Brazil, India, and China), Republic of Korea, Singapore, and Taiwan, China. Examples of upstream research partners are given in the various FP descriptions.

- Engaging and conducting dialogues with stakeholders. Besides the above planning exercises with direct partners, RICE will engage in stakeholder dialogue locally, nationally, and internationally. At the local level, multistakeholder platforms will involve the participation of various stakeholders, some of whom may become project partners. At the national level, RICE will facilitate and/or engage in policy dialogues that involve a variety of stakeholders in the public and private sector. At the international level, the RICE centers will actively interact with such organizations as FARA, CAADP, and SAARC.
- Conducting shared measurements and analyses, and joint publication at all stages of the impact pathway. For example, partners will be involved in shared data collection and analysis of household survey data, participatory varietal selection, satellite and remote-sensing imagery, laboratory and field experiments, modeling exercises, and impact assessments (to name a few). Between 2010 and 2013, more than 70% of the 569 publications from GRiSP involved collaboration with partners from other institutes (Elsevier 2014).
- Providing backbone and coordination support to facilitate and maintain partnerships. RICE will continue the practice of GRiSP to provide and/or host the secretariats of partnership arrangements, such as CORRA, CURE, FLAR, IRRC, NEC, and the various Africa-wide task forces (see GRiSP partnership report for more details). It will also organize major recurring events such as the International Rice Congress, Africa Rice Congress, and Rice Congress for Latin America and the Caribbean.
- Fostering equality in partnerships. In RICE, partnerships will be based on the principle of equality. Breaking with a long and pervasive tradition of CGIAR, RICE will strive toward minimum financial dependencies among partners, as such dependencies skew power balances. In contrast, and as per the new CGIAR SRF, "...the general expectation will be of burden sharing and parallel finance, rather than internal transfers from one partner to the other" (SRF 2015, p 32). RICE will use its dialogues and joint activities to seek commitments from clients and national partners to make complementary investments and policy reforms where it is investing. Nevertheless, around 17% of the total GRiSP budget of the CGIAR centers currently flows to nonCGIAR partners and the expectation is that in RICE this figure will fluctuate around 20% annually.
- Clearly defining the roles of partners. RICE-led partners will play a prime role in governance, and their roles are explicitly recognized in the RICE management team and in the RICE Independent Steering Committee. Besides these two bodies, many RICE partners will contribute to planning and governance processes through the many steering and advisory committees of the various substructures embedded within the program.
- Contributing to partner capacity strengthening. Personal and institutional strengthening of partner capacity is a major enabling factor toward accelerating development outcomes. Hence, RICE develops and delivers a specific capacity development strategy (Annex 3).

2. Partnership modalities

The GRiSP Partnership report (GRiSP 2013b) gives a detailed overview of GRiSP's diverse partnership arrangements (consortia, networks, platforms, programs, and collaborative projects). Different principle can be used to categorize partnership arrangements. Below, partnership arrangements in RICE are described

according to nature of activities (from research to development), scale of operation, and type of multistakeholder inclusion.

2.1 Research to development. Following the guidelines for CGIAR partner classification for the CRP II preproposal, RICE will engage with discovery partners, proof of concept and pilot partners, and enabling and scaling partners. In the RICE impact pathway, the share of research partners is large in the discovery phase of the research-to-impact pipeline; the share of development partners increases toward the impact part of the pipeline (Fig. 1 of RICE proposal). Sections 2.1.1.7, 2.2.1.7, 2.3.1.7, 2.4.1.7, and 2.5.1.7 of the FP descriptions of RICE lists the most important partners for each FP according to this categorization.

2.2 Scale. Partners are also classified according to scale: international, national, and local. International partners are mostly involved in upstream and discovery research, local partners in proof of concept and piloting of new technologies, and national partners in scaling-out and scaling-up.

International. RICE will engage with many partners that either have an international mandate or are national agencies that work internationally. All of these partnerships operate with well-defined contracts with mutual obligations, most of them in bilateral projects (some are involved in W1 or W2 funding arrangements). Examples are world-class advanced research institutes such as universities and institutes in western countries and developed Asian countries (e.g., UC Davis, Cornell University, Wageningen University, institutes of Japan's National Research Organization, and partners in the C4 Rice Consortium), and in emerging economies such as the BIC countries (e.g., Chinese Academy of Agricultural Sciences, China Agricultural University, Embrapa, institutes from the Indian Council for Agricultural Research, and Indian universities). The five flagship projects of RICE provide more examples.

National. National partnerships under RICE mainly build on long-standing NARES partnerships with participating centers (CGIAR and nonCGIAR). Such partnerships are usually formalized in various memoranda of agreement (MoAs) that spell out the mutual obligations. Such MoAs may or may not involve transfer of funds from CGIAR centers to NARES partners. IRRI has such MoAs with national representatives of most—if not all—of Asia's rice-growing countries (e.g., CAAS in China, ICAR in India, RDA in the Republic of Korea, and PhilRice in the Philippines). AfricaRice is an autonomous intergovernmental association of 25 African member countries. Its objectives, strategies, and research activities are aligned with those of its member states. In Latin America and the Caribbean, CIAT collaborates with national public and private partners through the Latin American Fund for Irrigated Rice (FLAR). RICE will strategically strengthen its engagement with national partners that have capabilities for scaling-out and scaling-up.

Local. Local partnerships are place bound and usually engaged through specific projects and contracts. Local partners include local research institutes or universities, local NGOs, local private-sector agencies, local small and medium-size enterprises, local cooperatives, and—last but not least—local farmers and farmer organizations. Though most local partners are selected according to needs and requirements of specific bilateral projects, RICE will develop generic guidelines and criteria for local partner engagement through its learning alliances and multistakeholder platforms.

At all spatial scale levels, RICE will strategically strengthen its engagement with partners that can help with scaling-out and scaling-up the results of RICE research (through FP1.3). Such partnerships will be mutually beneficial and based on the lessons learned and principles and technologies derived from research at the action sites and in the innovation platforms. For example, such partnerships will lead to improved

delivery systems for seed, mechanization, crop and natural resource management, and processing and value addition within a value chain context. In return, the scaling partners will provide RICE researchers with information on the performance of these innovations and gender-disaggregated data on their uptake by target beneficiaries. Major requirements for successful scaling-out of RICE technologies and services include engaging enabling partners (policymakers and decision makers) to create and maintain a favorable policy environment and engaging scaling partners involved in national/regional and/or private-sector investments in the rice sector. RICE will explore more systematic and strategic collaboration across its portfolio. For example, GIZ will become a new partner on scaling-out and scaling-up.

2.3 Multistakeholder partnerships.
A central element of the theory of change of RICE is the establishment or strengthening of multistakeholder platforms (MSPs). ISPC (2015) defines these as "structured alliances of stakeholders from public, private and civil society sectors. These include companies, policy makers, researchers, a variety of forms of NGOs, development agencies, interest groups and stakeholders from local, national, regional and international governance regimes". In RICE, MSPs are mechanisms that allow interactions along the rice value chain and/or within a particular farming systems environment among stakeholders who share a common goal to improve mutual understanding, create trust, define roles, and engage in joint action within a value chain and/or farming systems context. A learning alliance is a MSP that places special emphasis on capturing learnings from joint development and implementation of solutions and interventions in repetitive, progressive learning cycles (Lundy et al 2005). Another form of MSP is the innovation platform, which provides a space for learning and change (Homann-Kee Tui et al 2013). It is a group of individuals (who often represent organizations) with different backgrounds and interests: farmers, traders, food processors, researchers, government officials etc. The members come together to diagnose problems, identify opportunities and find ways to achieve their goals. They may design and implement activities as a platform, or coordinate activities by individual members. Many of today's food security and development challenges are systemic in nature, and have prompted the organization of a range of larger, global MSPs (ISPC 2015). Without neglecting its core strengths and mandate to provide science-based solutions to the SLOs (and SDGs), RICE will increasingly play the role of service provider and trusted advisor in these global MSPs. An overview of various MSPs that operate under RICE is given in the GRiSP Partnership report (GRiSP 2013b); Table A2.1 provides key examples of the four modes of MSPs identified by the ISPC (2015) in which RICE is the leader or a partner.

3. Public-private sector partnerships

Globalization and structural transformations are leading to an increased presence and role of the private sector in global, national, and local rice economies. This private-sector presence includes multinational and national companies, and more local, small and medium-size rural enterprises in value-chain segments ranging from input supply (seed, agrochemicals, machinery, and contract and advisory services) to postharvest services such as drying and milling, storage, processing, packaging, and marketing. RICE will continue GRiSP's four main mechanisms to engage in public-private partnerships. Through scientific knowledge exchange programs, it will engage in joint R&D on specific topics such as prebreeding, research tool development (e.g., survey tools for pest and disease monitoring), technology development (e.g., drying equipment and parboiling), and information generation (e.g., rice production forecasts). Second, the

private sector is becoming an important vehicle for disseminating and encouraging the adoption of new technologies such as new rice varieties, management recommendations, and postharvest technologies. Third, RICE will work with local small and medium-size enterprises to develop business models for new technologies and services (e.g., through the Africa-wide Rice Mechanization Task Force) and for value chain upgrading. Fourth, it will engage in capacity development with the private sector through staff training—either directly through courses or as a result of the private sector hiring scholars, postdocs, and other staff trained at RICE partner institutes. A recent public-private partnership that encompasses a few of the above functions is the Sustainable Rice Platform, a global multistakeholder platform, co-convened by the United Nations Environment Programme and IRRI, to promote resource efficiency and sustainable trade flows, production and consumption operations, and supply chains in the global rice sector. Partners include the food sector, international traders, input suppliers, public R&D, and national government agencies.

Table A2.1. Examples of RICE partnership modes (following ISPC 2015)

Mode 1. Agricultural research partnerships (Research Consortia)

Name	International Rice Informatics Consortium (http://iric.irri.org/home)
Convener	IRRI
Specific focus and objective	The goal of IRIC is to provide information and computational tools to facilitate rice improvement via discovery of new gene-trait associations and accelerated breeding. IRIC has three major objectives: 1. Organize available genotyping, phenotyping, expression, and other available data for rice germplasm into a linked, consistent, and reliable source of information for the global research community. 2. Provide user-friendly access to browse, search, and analyze the data through a single portal. 3. Support information sharing, public awareness, and capacity development.
Science agenda	Science discovery; addresses a 'discrete technical challenge' Information about rice genotypic and phenotypic diversity is at the core of modern approaches for rice improvement. Accelerating genetic gains in rice breeding will require full exploitation of the genetic diversity of rice and using it in efficient, product-oriented breeding pipelines that address future needs. The most comprehensive information on the genome diversity can be obtained from the DNA sequence. Progress in sequencing technologies makes it possible to sequence thousands of rice varieties and cultivars. The problem of data analysis and interpretation, however, remains the bottleneck in using this information in rice improvement. Phenotyping data have increasingly become the most valuable and expensive part of gene discovery and trait development for crop improvement. Collecting phenotyping data requires a lot of time, labor, and expertise. The scope of phenotyping can be very broad and can cover hundreds of different traits. New high-throughput phenotyping technologies can significantly increase the scope, speed, and data density of phenotyping. Combinations of genotyping and phenotyping data will lead to discoveries of many novel trait-loci associations. Available sequence data will provide an opportunity to predict causative gene variations, which, after validation, will be the targets in breeding introgression or genetic engineering experiments.

Geographic focus/location	Global
Role of RICE	Science leader; research service provider; convener; leading science discovery research
FPs 4,5	Maintain the consortium and provide open access to databases: SNP-Seek (returns SNPs & small indels for selected accessions in 3K rice genomes) The tool returns SNPs (and soon, indels) that fulfill user-selected criteria, for sets of accessions that selected. Information (phenotypic and passport data) about the re-sequenced varieties is also available. SNP-Seek reprint IRRI Galaxy Bioinformatics workbench, with rice-specific data (i.e., new rice reference genomes) and tools (mostly specialized for the IRRI Genotyping Service Laboratory) installed.
Key CGIAR partners and their roles	IRRI convenes the IRIC • IRRI appoints an IRIC coordinator who shall be a member of the full-time staff of IRRI, with an assistant to manage IRIC activities. • IRIC will have an advisory committee (AC) composed of representatives from private-sector members (2), public sector members (3), and IRRI (1). They will meet once a year, preferably during an annual IRIC meeting. Additional meetings of the AC should take place on a quarterly basis via internet. The IRIC Coordinator at IRRI will serve as additional ex-officio member and secretary to the AC.
Key 'external' partners and their roles	• Any public sector organization, nonprofit or for-profit nongovernmental organization (NGO), or private company can become a member of IRIC (IRIC guideline). • IRIC has two membership categories: private sector and public sector. Financial contributions (hereafter referred to as grants) under the consortium structure will depend on the membership category, based on principles of (1) being simple, fair, and transparent; (2) honoring the different public and private sector roles and interests; and (3) providing a sustainable level of support for the wider range of IRIC functions. "Public Sector" members are defined as any not-for-profit institutions that are primarily supported by public funds (e.g., government-funded national research institutions, public universities, international or regional research centers) Annual membership contribution: Voluntary "Private Sector" members are defined as any for-profit organizations or companies that have commercial activities related to crop R&D and/or selling of seeds and other products and services, including business entities under public organizations.
Contribution to impact pathway and theory of change	Upstream discovery research; research creates new knowledge and makes it available for others to use

Name	C4 Rice Consortium (http://c4rice.irri.org/)
Convener	IRRI
Specific focus and objective	The remit of the consortium is to contribute to the development of C4 rice, by providing appropriate levels of expertise and, where suitable, personnel and resources. Each consortium member brings a particular expertise and is located in a well-established laboratory in a leading academic institution.
Science agenda	The development of the C4 Rice Project at IRRI sprang from the need to optimize rice production in order to meet the ever-increasing demand for food. Given these conditions, our food sources will have to work that much harder in order to feed everyone. Hence, C4 rice. IRRI is developing innovative ways for rice to use solar energy more efficiently in photosynthesis, hence, increasing rice yields while using scarce resources like land, water, and fertilizer. One such way is by converting the photosynthetic system in rice to the more efficient, supercharged C4 system used by maize. A technological innovation of this magnitude is nothing short of a revolution, which is why it requires the skills and technologies of a global alliance of multidisciplinary partners from advanced institutions. In the C4 Consortium, various approaches are being taken to the problem of identifying the genetic factors controlling the C4 syndrome.
Geographic focus/location	Global
Role of RICE	Convenor
Key CGIAR partners and their roles	IRRI, convenor
Key 'external' partners and their roles	A U.S. National Science Foundation (NSF)–funded collaborative project between Yale and Cornell universities is using laser micro-dissection technologies to capture specific cell types in sorghum, maize, and rice leaves for further analysis of proteins and gene transcripts. A quantitative inventory of these molecules in each cell type will provide information regarding the regulation of gene expression and will explain how sorghum, maize, and rice plants differ in photosynthesis and in other cellular functions. The C4 consortium intends to assimilate information from the NSF using bioinformatics and systems modeling. At Washington State University and the University of Toronto, extensive research is being conducted on the structural and biochemical diversity among the 19 families of plants found to have C4 species, and on the progressive evolution from C3to C3-C4 intermediates, and to C4 photosynthesis. Julian Hibberd (Cambridge) and Peter Westhoff (Dusseldorf) have been developing molecular tools to enable cell-specific genes to be introduced into rice via transformation.
Contribution to impact pathway and theory of change	Upstream discovery research; research creates new knowledge and makes it available for others to use

Mode 2. Agricultural innovation delivery partnerships

Name	Irrigated Rice Research Consortium (http://irri.org/networks/irrigated-rice-research-consortium) /CORIGAP
Convener	IRRI
Specific focus and objective	To provide a venue for linkages among national agricultural research and extension systems, government agencies, NGOs, academic institutions, and the private sector in the rice sector. In partnership with national agricultural research and extension systems (NARES) and the private sector, IRRC provides a platform for the dissemination and adoption of natural resource management (NRM) technologies in Asian countries
Science agenda	Focuses on agricultural research andextension in irrigated rice-based ecosystems. CORIGAP aims to improve food security and gender equity as well as alleviate poverty by optimizing productivity and sustainability of irrigated rice production systems. These will be achieved through the use of science-based tools and participatory methods that would generate evidences on reduced rice yield gap. Innovative learning platforms and communication strategies among farmers, researchers, and extension staff from the public and private sectors play an important role in the process
Geographic focus/location	Cambodia, China, Indonesia, Lao PDR, Myanmar, the Philippines, Sri Lanka, Thailand, and Vietnam
Role of RICE	Science leader; research for development practice leader; capacity builder; convener of MSP; trusted advisor
FPs 2,3	IRRC continues as a partnership mechanism in GRiSP as a platform for several projects, including the Closing Rice Yield Gaps in Asia with Reduced Environmental Footprint (CORIGAP). The CORIGAP Project will develop sustainability criteria to support the certification of farmers who implement good agricultural practices for rice (Rice GAP}.
Key CGIAR partners and their roles	IRRI; convener; research and development of novel rice management technologies; technology transfer
Key 'external' partners and their roles	NARES and private sector partners in the consortium countries contribute local solutions and innovations to technology development; implement, evaluate, and adapt solutions; disseminate and scale-out solutions. External partners also provide oversight through the CORIGAP Advisory Committee, which consists of a representative nominated by country partners for each country, plus representatives from donor (Swiss Agency for Development and Cooperation) and IRRI.
Contribution to impact pathway and theory of change	Along the whole impact pathway from discovery research to dissemination and outcome generation; research collaborates with technology delivery and adoption stakeholders.
Name	Consortium for Unfavorable Rice Environments (CURE; http://cure.irri.org/)
Convener	IRRI
Specific focus and objective	Regional partnership among 26 institutions led by NARES from 10 countries in South and Southeast Asia that provides a venue for partnership between NARES and IRRI researchers and farmers and extension workers to tackle key problems in rice farming systems where low and unstable yields are commonplace and where extensive poverty and food insecurity prevail.

Science agenda	Identify, adapt, and validate improved rice technologies (new varieties and natural resources management options); develop information and training materials for NARES partners and rural communities; enable farmers in unfavorable rice environments to access rice technologies; and develop capacity of NARES partners and local communities and IFAD-supported projects.
Geographic focus/location	Bangladesh, Cambodia, India, Indonesia, Lao PDR, Myanmar, Nepal, the Philippines, Thailand, and Vietnam
Role of RICE	
FPs 3,5	Science leader; research for development practice leader; capacity developer; convener of MSP; trusted advisor CURE is a partnership mechanism in RICE and serves as a platform for several projects
Key CGIAR partners and their roles	IRRI; convener; research and development of novel rice varieties and rice management technologies; technology transfer
Key 'external' partners and their roles	26 NARES and private sector partners lead the consortium and contribute local solutions and innovations to technology development; implement, evaluate, and adapt solutions; disseminate and scale-out solutions.
Contribution to impact pathway and theory of change	Along the whole impact pathway from discovery research to dissemination and outcome generation; research collaborates with stakeholders in technology delivery and adoption
Name	Temperate Rice Research Consortium (TRRC; http://irri.org/networks/temperate-rice-research-consortium)
Convener	IRRI
Specific focus and objective	TRRC was established to overcome production constraints to rice in temperate environments through collective research efforts. It is recognized that the best possible solution to remove these constraints is through a consortium approach. TRRC aims to • provide an international mechanism that supports research and strengthen the partnership to promote application of suitable technologies and information to improve sustainable rice production • serve as a platform for identifying and prioritizing concerns of rice research in temperate environments and high-altitude areas in the tropics that generate international/regional public goods for improving rural livelihoods • provide logistical support and to coordinate NARES-IRRI-ARI strategic research collaboration • promote resource sharing and information exchange among partners
Science agenda	The issues on temperate rice improvement include both biotic and abiotic stresses, yield potential, grain quality and nutrition, and water and nutrient management.
Geographic focus/location	Australia, Bhutan, Chile, China, Egypt, Japan, Kazakhstan, Republic of Korea, Nepal, Philippines, Russia, Spain, Tanzania, Turkey, Uruguay, USA, and Uzbekistan,
Role of RICE/FP	Science leader; research for development practice leader; capacity developer; convener of MSP; trusted advisor

Key CGIAR partners and their roles	IRRI; convener; research and development of novel rice varieties and management technologies; technology transfer
FPs 3,5	In particular, IRRI's role and expected outputs are: • Help scientists of participating countries access a diverse source of germplasm and broaden the genetic base of temperate rice for higher yield, superior grain quality, and resistance to stresses • Assist in the conduct of experiments with NARES to optimize agronomic N-use efficiency and water-use efficiency in farmers' fields at key sites • Ensure that rice farmers in temperate countries benefit from improved technologies
Key 'external' partners and their roles	NARES of the participating countries. Contribute local solutions and innovations to technology development; implement, evaluate, and adapt solutions; disseminate and scale-out solutions
Contribution to impact pathway and theory of change	Along the whole impact pathway from discovery research to dissemination and outcome generation; research collaborates with stakeholders in technology delivery and adoption
Name	Africa-wide Rice Task Forces
Convener	AfricaRice
Specific focus and objective	Through the Africa-wide Rice Task Forces, national and international rice experts in Africa have joined forces on critical thematic areas in the rice sector to stimulate the delivery of improved technologies. Focusing on six themes—(1) breeding, (2) agronomy, (3) mechanization, (4) processing & value addition, (5) policy, and (6) gender— the task forces aim to provide synergy to research efforts across the continent, pool scarce human resources, and foster high national involvement. This approach aims to reduce the time lag between development and release of new rice technologies across the continent and increase their impact.
Science agenda	Breeding Task Force: to evaluate breeding lines developed by RICE partners globally in Africa and to identify those lines best fitted to growth conditions in target regions and markets. Agronomy Task Force: to improve rice production and productivity through the introduction, testing, and dissemination of baskets of good agricultural practices. Mechanization Task Force: work with both private sector and public institutions to evaluate, adapt and disseminate a range of mechanization options along the value chain in Africa. Processing and value addition Task Force: to reduce quantitative and qualitative losses in the rice value chain through improved harvesting, drying, milling, and processing; to improve processing technologies such as parboiling; to develop novel products and use of by-products. Policy Task Force: to contribute to the development of rice value chains through improved technology evaluation, institutional arrangements and promotion of evidence-based policy making in Africa. Gender Task Force: to support the efforts of AfricaRice and its national partners in addressing gender concerns, especially gender gaps in the access to technologies, knowledge, specific technology needs of women, and their potential roles as contributors and beneficiaries of technologies in rice value chains.

Geographic focus/location	• West Africa: Benin, Burkina Faso, Chad, Côte d'Ivoire, the Gambia, Ghana, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo • Central Africa: Cameroon, Gabon, Republic of Congo • East and southern Africa: Burundi, Ethiopia, Madagascar, Mozambique, Rwanda, Uganda • North Africa: Egypt
Role of RICE	
FPs 1–5	Science leader; research for development practice leader; capacity developer; convener of MSP; trusted advisor
Key CGIAR partners and their roles	AfricaRice; convener; research and development of novel products and services along the rice value chain; technology transfer
IRRI; research and development of novel products and services along the rice value chain; technology transfer	
Key 'external' partners and their roles	NARES of the participating countries. Contribute local solutions and innovations to technology development; implement, evaluate, and adapt solutions; disseminate and scale-out solutions
Contribution to impact pathway and theory of change	Along the whole impact pathway from discovery research to dissemination and outcome generation; research collaborates with stakeholders in technology delivery and adoption
Name	The Latin American Fund for Irrigated Rice (Fondo Latinoamericano para Arroz de Riego; FLAR) (http://flar.org/)
Convener	CIAT
Specific focus and objective	In FLAR, rice producers' associations, milling and seed companies, and national public research programs come together to provide innovative and technological solutions to the needs of rice farmers and the rice industry, and to improve the production of irrigated rice in Latin America. Its main objective is to increase irrigated rice production in a sustainable way, considering parameters of equality, genetic diversity, economical and technical efficiency, profitability, and lower unit costs
Science agenda	Rice breeding and germplasm exchange; development of other integral parts of the system, including—but not limited to—crop management technologies, postharvest, alternative uses, and quality of grains
Geographic focus/location	Latin America and the Caribbean
Role of the CRP	Science leader; research for development practice leader; capacity developer; convener of MSP; trusted advisor
FPs 1-5	FLAR provides a mechanism to cut across and link FPs 1-5
Key CGIAR partners and their roles	CIAT; convener; engages in upstream discovery research on genetics and plant breeding; develops and disseminates new rice lines and crosses; conducts commissioned research by FLAR members on a needs basis

Key 'external' partners and their roles	FLAR involves all entities that share the mission of the Fund. Each new member country is represented by one institution in the rice sector. This institution is responsible for ensuring the participation of other entities working to promote rice research, technology transfer, rice production, and marketing. Besides the representatives of rice institutions, rice research organizations that share FLAR's mission and activities in support of rice development are welcome to join FLAR. FLAR comprises 27 institutions from private and public sectors, from Argentina, Bolivia, Brazil, Colombia, Chile, Costa Rica, Ecuador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Peru, the Dominican Republic, Uruguay, Venezuela
Contribution to impact pathway and theory of change	Along the whole impact pathway from discovery research to dissemination and outcome generation; research collaborates with stakeholders in technology delivery and adoption
Mode 3. National agri-food system innovation partnerships	
Name	Coalition for African Rice Development (CARD; http://www.jica.go.jp/english/our_work/thematic_issues/agricultural/card.html)
Convener	Alliance for a Green Revolution in Africa (AGRA) and the Japan International Cooperation Agency (JICA)
Specific focus and objective	CARD aims to set out an overall strategy and framework for action toward achieving an African green revolution through rice. CARD aims to respond to the increasing importance of rice production in Africa by building on existing structures, policies, and programs such as the national agricultural research organizations of Africa, Africa Rice Center (AfricaRice), Comprehensive Africa Agriculture Development Program (CAADP), and the Africa Rice Initiative (ARI). Its goal is to support the efforts of African countries to double rice production on the continent to 28 million tons per annum within 10 years (by 2018) by developing and implementing national rice sector development strategies.
Science agenda	Identifying new research priorities; policy support; scaling-out models
Geographic focus/location	Africa
Role of RICE	
FPs 1, 2	Research for development practice leader; capacity developer; research service provider; trusted adviser RICE will work closely with CARD to support the development and implementation of national rice development strategies in the CARD priority countries. JICA will be a key partner for development of the rice sector, with an emphasis on extension capacity developing and small-scale mechanization. RICE will provide technical support to CARD projects or will implement them on behalf of or with JICA and national partners.
Key CGIAR partners and their roles	CARD Steering committee members include three of RICE's coordinating institutes AfricaRice, IRRI, and JIRCAS (others are AfDB, AGRA, FAO, FARA, IFAD, JICA, NPCA and the World Bank).
Key 'external' partners and their roles	National rice sector public and private sector partners; policy development and support; technology evaluation and dissemination; strengthening seed systems; value-chain upgrading; capacity development

Contribution to impact pathway and theory of change	Enabling environment for scaling-out and delivery of development impacts in the rice sector; capacity development; research forms part of the capacity of agricultural innovation systems to continuously create integrated sets of technological, policy, and institutional innovations.

Mode 4. Global development innovation partnerships

Name	Sustainable Rice Platform (SRP)
Convener	United nations Environment Programme (UNEP)
Specific focus and objective	SRP is a multistakeholder platform to promote resource efficiency and sustainability both on-farm and throughout the rice value chain. SRP was co-convened by UNEP and IRRI in 2011, and works in collaboration with partners in the public and private sectors as well as the NGO community. The SRP pursues public policy development and voluntary market transformation initiatives to provide private, nonprofit, and public actors in the global rice sector with sustainable production standards and outreach mechanisms that contribute to increasing the global supply of affordable rice, improved livelihoods for rice producers, and reduced environmental impact of rice production.
Science agenda	SRP focuses on developing and testing sustainability guidelines, standards, tools, and outreach models for sustainable rice production and processing, including decision-making tools and quantitative sustainability impact indicators
Geographic focus/location	Global
Role of RICE	
FPs 2,3	Research for development practice leader; capacity developer; research service provider; trusted adviser
Key CGIAR partners and their roles	IRRI; co-convener; research and development of sustainable rice management practices (environmental, biophysical, and socioeconomic); research on rice value chains, and market analysis for sustainability; technology transfer; capacity development
Key 'external' partners and their roles	• International: UNEP (convener, facilitator; and secretariat), International Finance Corporation, GIZ, • Public sector: Thai Rice Department, Punjab Agricultural University, Philippine Department of Agriculture, Department of Environment and Natural Resources Philippines, Ministry of Agriculture Forestry and Fisheries Cambodia, Ministry of Agriculture and Rural Development Vietnam, Ministry of Agriculture Indonesia • Private sector: Louis Dreyfus, Olam, Ahold, IFDA, Kellogg's, Bayer Crop Science, MARS, BAFS; Nestle Paddy Club, van Sillevoldt Rijst, Syngenta, Loc Troi • NGO: Aidenvironment, Solidaridad, Rainforest alliance, UTZ, VECO, Wildlife Conservation All members contribute to the identification and mainstreaming of sustainability in the rice value chain
Contribution to impact pathway and theory of change	Along the whole research-delivery impact pathway