



Rice Strategy for Asia and the Pacific

Concept Note and Approach to Strategy Formulation

1. Background and rationale

The rice economy of Asia has been going through important structural changes for some years now. Yield growth has decelerated considerably, from the peak of 3.3% per annum during 1976-85 to 0.7% during 1998-2007. Some of the reasons for this are well documented, notably lagging technological breakthroughs in the face of falling investment on research, as well as on irrigation, thus reducing the marginal returns to additional fertilizer use. The rice economy has also been suffering from resource scarcity, notably water and land, while rice farming is also being blamed for the degradation of natural resources. In response, policy makers are looking for sustainable ways of rice farming. As with other basic food staples, rice is also subject to Engel's law, i.e. demand slows down with higher incomes. Future production strategies need to be based on sound assessments of the global demand outlook, noting that rice is a somewhat differentiated product with different demand outlook for various types of rice.

The 2008 rice price crisis has also induced governments across the world to think hard on rice strategy and policies. Among importers, one perception that is developing is that the global rice market is not reliable and so they need to pursue a greater self-sufficiency strategy for rice. This has implications for resource use efficiency and sustainability of the production models, affecting both importers and exporters. Thus, calls have been made for revisiting the global rice trading system.

Climate change impact has also emerged as one of the top concerns for rice. How this phenomenon will affect rice farming over the years and decades needs to be understood better, and adaptation and mitigation strategies formulated now. Other concerns expressed or issues raised include labour shortages, ageing of rice farmers in several countries, the importance of attracting young farmers to the rice sector, the importance attached by societies in high-income countries in particular to rice farming as a culture and national heritage, and lastly to the importance of enhancing the contribution of rice to poverty reduction, rice being the predominantly important staple for vast numbers of lower-income consumers in Asia and most rice farmers being smallholders.

These concerns and issues are being increasingly discussed at the global and regional meetings, including at the FAO Regional Conferences attended by ministers and senior officers. For example, the 2008 rice price crisis and climate change were among the prominent topics addressed in the 2010 Conference, calling upon FAO and other organizations to respond effectively to these new challenges. It was also recognized that these issues and emerging problems are inter-related, e.g. among climate change, research and trade policy, and need to be addressed in a holistic manner.

Thus, at the 31st FAO Regional Conference in Hanoi (12-16 March 2012), in reviewing the *FAO Programme of Work and Budget 2012-13* and *Areas of Priority Actions for Asia and the*

Pacific Region for the biennium 2014-15, the Conference suggested that FAO coordinate the development of a regional rice strategy.

The proposed work on strategy formulation responds to this specific mandate to FAO, but as noted above addresses many issues and concerns being increasingly raised in recent years.

2. Strategy formulation: the analytical approach

It is the individual countries that formulate a rice strategy, policy and programmes. These frameworks vary from country to country because national goals and priorities, as well as constraints and opportunities for the rice sector are country specific. Thus, a single regional rice strategy does not capture this diversity.

While this is the case, there are several areas where analytical and policy work on rice at a broader, regional level can be made useful for the individual countries. For example, there are several issues on rice that are of a cross-border, regional and global nature. These include, for example, trade policy, price volatility, regional cooperation, pests and diseases, technology generation, and best practices in various areas. Second, individual countries in Asia are looking for best practices on sustainable rice farming. The issues in this area are typically ecosystem-specific and thus common for similar ecosystems across the countries. Hence, there are economies of scale in generating knowledge and insights from various ecosystems across Asia.

In pursuing this approach, it is recognized that at a broad level there are four most common ecosystems found in most countries. These are lowland irrigated system, lowland rainfed system, upland system, and deepwater/tidal system. Each of these ecosystems has different defining characteristics, constraints and opportunities for growth, as well as sustainability and environmental aspects. While one can find multiple sub-systems within each system, the four ecosystems are reasonably broad enough in covering all the major rice producing areas.¹ Indeed, for decades, IRRI's strategy on research resource allocation is also mainly based on this four-ecosystem classification.

The four ecosystems will be taken as the core building blocks for the study, especially for organizing all analytical works on the production and post-production phases of the rice economy. The focus of the analysis at the production level would be on the sustainable intensification of rice production (SIRP). The SIRP is based on the view that a paradigm shift is essential for the design of production policies and practices that fully respects sustainability considerations. It requires a holistic view of the challenges facing rice production and a multidisciplinary approach to solving the issues. The elements of such an approach are articulated in, *inter alia*, FAO's new Strategic Objective 2 and in recent papers of the CoAG. Most countries hold the view that rice production has to be sustainable and are looking for insights and guidelines for formulating national policies and programmes along that line.

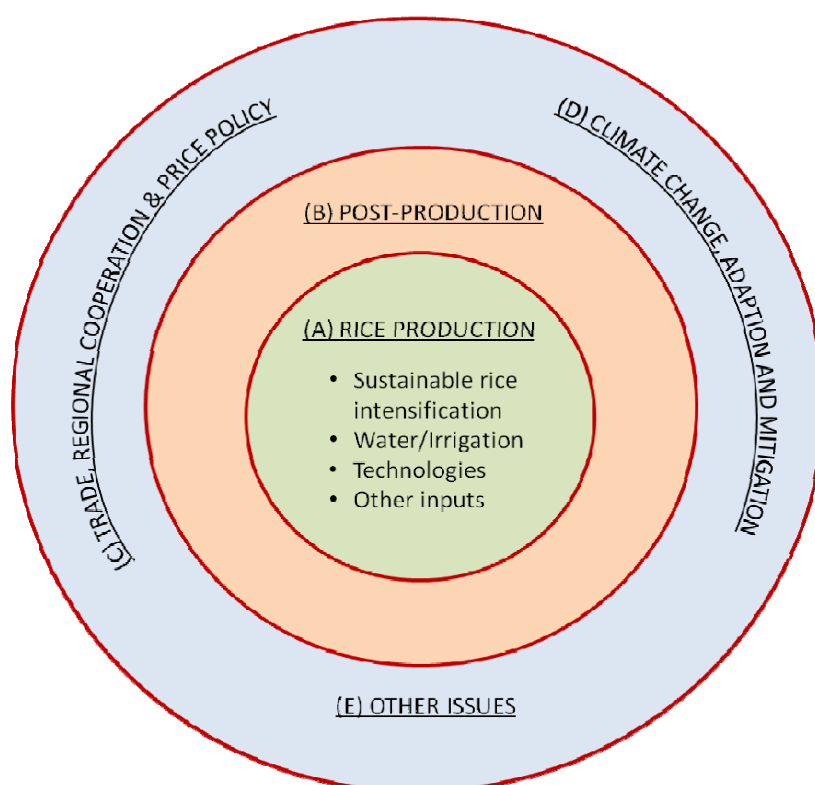
The process of strategy formulation requires information and analyses on many topics, ranging from agronomic/resource use at the ecosystem level (the SIRP component) to global outlook for rice demand. Some of these topics would be ecosystem-specific while others would be more of a cross-cutting nature and applicable to all the ecosystems. Therefore, it

¹ It is possible that there are some additional sub-systems within each ecosystem that may require a further, disaggregated analysis. Where this is evident and important, the analyses may be extended to sub-system level also.

makes sense to group these topics or issues into some clusters or building blocks. This helps both to clarify the approach and also to organize and implement the work, e.g. in terms of clustering analytical groups or deciding on expert services.

The figure below provides an illustration of the approach being considered. It groups issues and topics into five components: (A) SIRP and water/irrigation; (B) post-production system; (C) trade, price policy and regional corporation; (D) climate change adaptation and mitigation; and (E) other issues including rice culture and heritages as well as changing rural demography, labour and gender-related topics. In this scheme, there will be 15 background studies to be conducted, and the analyses from the five components will provide an integrated, holistic outputs to the rice strategy.

Figure 1: A framework for organizing analysis for rice strategy



Component A – SIRP and Water/Irrigation

The analytical focus of this cluster will be on SIRP. FAO's *Save and Grow* concept is an important framework for this analysis. Likewise, *More from Less* concept is valuable to highlight the importance of increasing *Total Factor Productivity* (TFP) growth rate to emphasize the role of agricultural research, education, extension, technologies and innovation for rice-based development. The analysis involves several aspects - enabling environments (policies, investments, institutions); governance mechanisms; research and knowledge tools, climatic, environmental and economic shocks. It requires insights from the traditionally separate disciplines such as agronomy, land, water, genetic resources, soil health, economics and so on.

In the formulation work, for the purpose of organizing activities, all work under this component are divided into two sub-groups: i) analyses of four ecosystems with country case studies: irrigated lowland, rainfed lowland, and upland and coastal/delta area; and ii)

irrigation and water use efficiency Needless to stress is that the two sub-groups of expertise are closely linked with activities in other components, e.g. post-production issues including incentives and policies.

A generic ToR for this component would be (for each ecosystem):

1. Identify 3-4 representative rice production sub-systems for detailed analysis;
2. Define, with quantification where possible, the desirable SIRP (or SIRPs) for this broad ecosystem;
3. Define various elements of gaps between alternative production systems – these would be for example productivity, income/returns, inputs (e.g. fertilizer, pesticides), resources (e.g. water, energy), pro-poorness, other indicators of sustainability, and so on.
4. Identify and quantify the gaps between current production practices and what is desirable from the standpoint of the SIRP;
5. Present the results of the analysis in terms of trade-offs involved, with various costs and benefits, for policy makers to appreciate the choices involved.

Component B – Post-production system

The second component of analytical works include various elements or themes in the rice chain after production – called post-production component. The list of such issues/themes can be long as these cover the entire rice value chain. They would include the following:

- Post-harvest losses and value addition
- Farm technologies including efficient rice milling technologies and mechanization
- Rice quality and nutrition
- Efficient marketing and price transmission
- Farm organizations, cooperatives and producers companies.
- Efficient delivery of inputs and services
- Risk management and insurance

These issues/themes apply to all four ecosystems, but the intensity of their relevance could vary from ecosystem to ecosystem. Yet, the list is long and it will be a challenge to integrate the issues in the analysis of the SIRP and different rice ecosystems. Thus, the issues would need to be prioritized based on their importance to specific ecosystems. For example, mechanization may be an overriding issue in some but not all ecosystems.

A generic ToR for this component would be:

1. Working closely with the production expert, identify important post-production issues specific to that ecosystem and prioritize them for detailed review;
2. For each identified element, summarize the key issues or problematic in those areas;
3. Further refine the issues from the standpoint of the trade-off analysis of the rice sub-systems being undertaken by the production expert; and
4. Integrate this analysis with that of the production expert in presenting trade-offs involved in moving to better sustainable rice production systems.

Components C, D, and E – Cross-cutting and overarching issues

Three cross-cutting and overarching topics are identified in components C, D and E. These are cross-cutting in the sense that the issues addressed are more of a regional and global nature and/or would apply to all four ecosystems (and individual countries) being analysed.

These include assessment of global demand for rice by type and trade policy and regional cooperation. The volatility of rice prices in the global food market and ways and means to respond to that also falls under this component. Another important subject that needs to be considered here is cross-border trade across porous borders and regional cooperation on rice policy and trade. It should be noted that, at the end, the objective is to produce elements of the rice strategy that are as holistic as possible, which implies that the analyses of all five components would have to be linked. For example, it may be the case that recommendations on options and trade-offs on production policies would change once the demand side picture becomes more clear. In this case, demand considerations may be driving the supply side. A list of study topics that would fall into these components is the following:

- Labour issue including ageing and attracting young people in rice
- Cultural/heritage aspects of rice farming
- Gender
- National rice policies
- Private and foreign direct investment (FDI) in rice value chain
- Global demand outlook for rice
- Trade policies
- Regional cooperation/cross-border trade
- Subsidies
- Climate change adaptation and mitigation

All in all, over 20 background analyses have been identified under the five components listed in the table below. For each study, concept notes and TORs have been formulated. Each work would be led by a consultant or/and FAO RAP technical officer.

(A) Sustainable Intensification of Rice Production (SIRP)
A1- SIRP Analysis for Rice Ecosystems (plus four country case studies)
A2- Water and Irrigation
(B) Post-production
B1 – Post-harvest Losses, Technology, and Value Addition
B2 – Marketing, Price Efficiency, Inputs/Services Delivery, Farm Organizations/ Cooperatives
B3 – Risk Management – Helping Smallholder Rice Farmers to Cope with Risk
B4 – Quality and Nutrition
(C) Trade, Regional Cooperation, and Price Policy
C1 – National Rice Policies in Asia
C2 – Trade Policy Affecting Rice (including WTO disciplines)
C3 – Subsidies
C4 – Regional Cooperation/Cross-border Trade
C5 – Private and Foreign Direct Investment (FDI) in Rice Value Chain
C6 – Global Demand Outlook
(D) Climate Change, Adaptation and Mitigation
D1 – Climate Change, Adaption and Mitigation
(E) Other issues
E1 – Culture and Heritages
E2 – Demographic Change (Labour/Ageing/Young Farmers) and Gender

3. Outputs

An important issue to be addressed at the outset is the nature of the outputs to be produced.

It is the individual countries that formulate a rice strategy, policy and programmes. These vary from country to country because goals and priorities, and constraints and opportunities for the rice sector are country specific. However, as noted in Section 2, there are several areas where analytical and policy work on rice at a broader, regional level can be made useful for the individual countries. These include not only cross-border, regional and global issues but also best practices and options for sustainable rice intensification and post-production practices.

This is the approach taken in formulating regional strategy and the outputs that will be produced. Thus, some of the outputs produced would be more of a cross-cutting nature applicable to most countries, e.g. trade policy, regional cooperation and trans-boundary diseases and pests. Other outputs would be produced in a way that individual countries with diverse needs (e.g. small and large, exporters and importers etc) find useful.

For the latter, notably the analysis of issues on the production side, outputs would be presented in the form of **trade-offs**, and not prescriptive recommendations. FAO's recent write-ups on sustainable crop production intensification (SCPI) discuss such trade-offs in moving towards sustainable systems. The objective of the Rice Strategy would be to generate evidences on such trade-offs, e.g. between output/productivity levels and sustainability of resources, further extending this type of analysis to trade-offs and choices across ecosystems also, e.g. whether to support more rainfed or irrigated rice? This approach to generate outputs would also apply to several other elements of the analysis – e.g. choice of techniques for mechanization, milling etc. These are the types of outputs that the Rice Strategy would aim at - produce evidences on such trade-offs and implied policy choices so that individual countries could decide which model or models would be best for them for sustainable intensification of rice farming, giving their own needs and resource constraints.

In summary, the key output would be a strategy in the form of strategic options indicating evidence-based trade-offs so that the results are useful for diverse rice producing countries of Asia. Including this, **three specific outputs** may be listed as follows:

4. Implementation

Analytical approach

There is a vast knowledge-base already available for most elements of the strategy. For example, the shortcomings of the current intensive farming models based on the heavy use of inputs such as fertilizers, energy and water as regards sustainability – both environmental and budgetary – are well known and acknowledged. Likewise, there are many good analyses on different elements of the rice value chain such as mechanization and rice milling. Similarly, a great deal of knowledge exists on the impact of current rice pricing and trade policies, even more so since the 2007/08 rice price crisis.

Therefore, it is unlikely that the strategy formulation work would require fresh, additional studies, although some small analyses may need to be undertaken where such needs are clearly identified. Instead, the formulation would be mostly based on the utilization of this knowledge base, including expert consultations.

The value added of the Rice Strategy over current knowledge base would be the integration of this knowledge from across the entire rice value chain to produce insights and best practice guidelines for all representative ecosystems. These outputs would be offered in the form of

trade-offs, with their associated economic, social and environmental benefits and costs so that these are useful to policy makers in diverse rice producing countries, small and large, exporters and importers, and so on. The objective is not produce one rice strategy that would be too broad and prescriptive for being useful to diverse countries.

External Rice Advisory Group

An external advisory body would be formed to provide advice to the strategy formulation work. The primary role of this body, **External Rice Advisory Group (ERAG)**, is to bring together neutral and unbiased expertise and knowledge on policy and technical aspects of rice to advise the strategy formulation work. More specifically, the ERAG will:

- Provide high-level advice on policy and technical matters of the rice strategy being formulated;
- Provide comments and suggestions to draft policy and technical documents prepared by the formulation team;
- Provide advice towards the implementation of the regional rice strategy.

The ERAG would be a small group of 10 members appointed on personal capacity. They will be leading experts on policy and technical aspects of rice with wide knowledge in the national, regional and global context. The ERAG will also contribute to fostering partnership with sister agencies on rice strategy and implementation.

It is desirable that the ERAG provides advice on implementation of the strategy also. Therefore, it could continue to function beyond the strategy formulation. It could also continue as a standing advisory body on rice issues in Asia, through the FAO regional office.

Timeline

A tentative timeline for the strategy formulation is as follows.

Activities	Date/duration
1. Initial brainstorming meetings	January – February 2013
2. First meeting of advisory group	May 2013
3. Identification of consultants	May-June 2013
4. Studies and analyses	July-Sept. 2013
5. 2 nd advisory group meeting	November 2013
6. Preparation of second draft strategy	Dec 2013 – Jan 2014
7. Consultative meeting with representatives of the FAO member states in the region	Jan 2014
8. Presentation of final Rice Strategy at APRC	March 2014