

ACIAR SDIP Foresight Component

Report on Scoping Workshop June 2018



Australian Government
Australian Centre for
International Agricultural Research

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SUMMARY

The Food Systems Foresight for South Asia workshop was convened by the Australian Centre for International Agricultural Development (ACIAR) as part of the Sustainable Development Investment Portfolio (SDIP) program funded by the Australian Department of Foreign Affairs and Trade (DFAT). Thirty-seven people attended the workshop in Delhi on 13 June 2018, representing knowledge institutions, policy makers, regional organisations and civil society.

One element of the ACIAR-SDIP investment strategy is to support work on regional and local food systems foresight. This scoping workshop was held to discuss this proposal with regional partners and members of the ACIAR-SDIP steering group and to gain support and suggestions for taking the foresight work forward. The EGP Foresight for Food Systems component is linked to a wider global initiative, *Foresight4Food*, being developed by a group of international organisations, research institutions, business networks and funders.

During the workshop, context setting presentations were given on the food systems in the region and foresight approaches. Then participants discussed key themes that need analysis, options for foresight activities and the overall value of enhancing foresight capability in South Asia and, in particular the Eastern Gangetic Plains (EGP).

In general, there was cautious optimism expressed by participants about the applicability of foresight processes for improving food systems planning in the EGP. The benefits were seen in terms of creating an opportunity for learning by bringing together different views and a breadth of intellectual enquiry that can contribute to the bigger picture challenges in the region.

The workshop recognised the complexity of interactions in food systems and the need for interdisciplinary approaches that include analysis of social and biophysical factors. Key themes suggested for foresight analysis included: patterns of rural transformation and implications for demand and production; role of gender issues in food systems; impact of agriculture and climate change on water availability; impacts of policy on longer term food system transformations; future farming systems that are more diversified and the implications for landholding size; understanding change in consumption patterns and implications for nutrition and health; regional markets and trade; and soil health.

Participants noted that foresight work must be linked to the wider food system and include bigger donors, the private sector and the people who are making the decisions. Implementation is critical, and there is a need to focus on elements of the food system that are critically important and for which there is existing technical capacity to ensure that actionable outcomes are achieved, particularly given the limited timeframe remaining in SDIP.

Suggested activities to be undertaken as part of the foresight work included: synthesis of mega-trends affecting food, water and energy; focused foresight studies on priority themes; synthesis of information on policy measures; mapping of food systems across scales; scenario modelling of best and worst-case scenarios; dynamics of transformation of large and small-scale agriculture; risk profiling; capacity development and training.

Overall there was a good level of support for taking forward the proposed foresight initiative and significant interest from participating individuals and organisations for engaging with the future work. Based on the outcomes of the workshop a strategy and workplan for the foresight component will now be developed and then shared with interested groups.

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Abbreviations

ACIAR	Australian Centre for International Agricultural Research
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DFAT	Department of Foreign Affairs and Trade (Australia)
EGP	Eastern Gangetic Plains
ICIMOD	International Centre for International Mountain Development
IFPRI	International Food Policy Research Institute
SDIP	Sustainable Development Investment Portfolio
SRFSI	Sustainable and Resilient Farming Systems Intensification
TAF	The Asia Foundation

1 Introduction

This report covers a scoping workshop on food systems foresight for South Asia, convened as part of the Sustainable Development Investment Portfolio (SDIP) program funded by the Australian Department of Foreign Affairs and Trade (DFAT). Thirty-seven people attended the workshop, representing knowledge institutions, policy makers, regional organisations and civil society, at the Australian High Commission in Delhi on 13 June 2018.

The SDIP programme aims to improve the integrated management of water, energy and food in three major Himalayan river basins—the Indus, Ganges and Brahmaputra—covering eastern Afghanistan, Pakistan, northern India, Bangladesh, Nepal and Bhutan. The SDIP draws on Australia's expertise and technologies in the water, food and energy sectors and is delivered through a combination of South Asian and Australian partners

As a key partner of the SDIP, the Australian Centre for International Agricultural Research (ACIAR) is working with its regional partners to support a programme of researching and scaling up the adoption of agricultural practices that are more sustainable and productive (sustainable intensification). Following field level work conducted in the first phase of SDIP, the second phase is aiming to engage more with the institutional and policy conditions necessary for achieving wider scale improvement in agricultural practices. It is recognised that such changes in agricultural production systems need to be understood within a wider context of long-term changes in food systems, in particular changing consumption patterns, trade, issues of nutrition and the impacts of climate change.

Consequently, one element of the ACIAR-SDIP investment strategy for phase two is to support work on regional and local food systems foresight. This scoping workshop was established to discuss this proposal with regional partners and members of the ACIAR-SDIP steering group and to gain support and suggestions for taking the foresight work forward.

1.1 Background

While remaining one of the most densely populated and poorest regions of the world, South Asia will see very significant economic growth over the coming decades due to both population growth and an emerging middle class. This will put extreme pressure on food, water and energy resources which will need to be managed in an integrated way to ensure long term resource security and political and economic stability.

In the Eastern Gangetic Plains (EGP), the population is highly dependent on agriculture and yet the sector is very inefficient with high risks, small and fragmented landholdings, labour scarcity and expensive energy resources. Degradation of land and water resources threatens productivity, and climate change means new techniques are needed. At the same time there are profound changes occurring in food demand and massive concerns about social and economic costs of poor health related to poor nutrition. Fundamental changes are needed to create more sustainable food systems.

Sustainable food systems are those which promote production and consumption of safe and healthy food without compromising the environment. They consider sustainability, health and economic issues from the integration of consumption, distribution and production.

In terms of foresight for agriculture, the work will look at how the sector is unfolding and what it may look like in the future under business as usual and other scenarios. This can help to identify preferred transformation pathways for the future of small-scale farming.

Food systems foresight aims to help to provide a long-range perspective on key drivers and trends in the regional/EGP food systems and the implications for water and energy use. Foresight is a process for bringing greater social and political awareness of these issues and for driving change through engaging key stakeholders and exploring alternative future scenarios and transformation pathways.

The EGP Foresight for Food Systems component is linked to a wider global initiative, Foresight4Food, being developed by a group of international organisations, research institutions, business networks and funders. It seeks to improve foresight and scenario analysis for the global food system, including strengthening the links between science and forums for dialogue.

Overall, this work aims to improve collaboration between key regional partners to strengthen understanding of longer term food systems changes, the implications for food, water and energy security and transformational opportunities in agriculture, particularly in the context of gender and climate change.

1.2 Workshop Objectives

The scoping workshop was an exploratory day, and the first step in a proposed longer, iterative process. The objectives of the workshop were to:

1. Explore the value of convening a regional foresight process that would collate and synthesise current knowledge to provide a better systems view with a particular emphasis on food, water and energy linkages.
2. Identify key country and regional level foresight related processes, forums and research to be aware of and to which some connections could be made.
3. Identify how to engage with current processes in the Ganges and Brahmaputra basins and field areas from the SRFISI project.
4. Develop a framework for a synthesis report on key food systems issues and trends.
5. Outline key actions for taking the foresight work forward.

2 Context setting presentations

During the day a series of presentations were given to introduce the proposed foresight initiative, explain how it links to global foresight efforts, outline regional challenges and explain work already undertaken by SDIP.

2.1 Rationale for Food Systems Foresight – Professor Andrew Campbell, CEO ACIAR

The region faces big challenges around the food, energy and water nexus linked to healthy diets, sustainable production and availability of water resources. These challenges need to be

taken account of in the context of a massive structural change to the human economy as energy systems are de-carbonised against the backdrop of climate change. The changes that will be needed have technical, policy and social elements and the problems must be tackled simultaneously while managing the complex interactions. This requires processes such as foresight that can be integrating, interactive and more discursive. This creates the need for tackling an unavoidably messy science-policy-political interface. These processes can be considered from three lenses 1) the science of creating evidence; 2) the organisational - government agencies have the capacity to deliver; and 3) political - being able to make necessary long-range decisions. Foresight is potentially a way to help integrate all these different networks and expertise.

2.2 The EGP context – Dr PK Joshi, Regional Director IFPRI

The EGP has serious issues around food, energy and water, and foresight could be used to ensure sustainable food systems. The supply (production) and demand (consumption) sides to food systems often have weak or missing linking mechanisms. If we focus on the supply side of the system, we need to think about what agriculture will look like in the future, and what the transformation path will be. Challenges in the EGP include high population density, small and fragmented landholdings, labour scarcity and expensive energy. These challenges have persisted for decades, and so foresight could be a useful tool for addressing some of these challenges into the future.

There are three broad questions to address:

1. What are sustainable food systems?
2. What are the key challenges in the EGP?
3. What do we want future farmers to look like?

From a sustainable food systems perspective, it is necessary to promote the production and consumption of safe, healthy food without compromising the environment. This requires an integration of the pillars of production, consumption and the linking mechanisms. In particular more attention is required for this last pillar where the mechanisms are often missing, and transaction costs are high.

Foresight needs to help as us ask what do we want to see and what should the transformation path be? It is important to learn lessons from the history of agricultural development in industrial countries, in terms of policies, institutions and budgets, we need consultation and foresight based on experience and the use of modelling tools to make foresight easier.

2.3 An introduction to Foresight approaches – Jim Woodhill

Food systems are changing rapidly and will come under increasing pressure from growing demand, the need to ensure healthy diets, climate change and resource degradation. This situation requires an understanding of longer term trends and uncertainties – foresight – to enable decisions and investments that can ensure longer term resilience and sustainability. This is particularly the case given that sustainable and healthy food systems can be seen as central in achieving or contributing to all the Sustainable Development Goals.

The work on foresight in the EGP and South Asia is linked to a wider global initiative Foresight4Food, that is engaging with international agencies, research institutions, business platforms and donors. ACIAR has been a catalytic funder of this initiative.

Foresight involves engaging stakeholders in exploring possible alternative futures based on evidence and modelling of current trends. It is not about trying to predict the future, but rather about engaging stakeholders in learning about the future in ways that can help to drive systemic changes to avoid possible future risks and capture emerging transformative opportunities. As such it needs to engage with issues of governance, systems approaches to change and human cognition.

To support the global Foresight4Food initiative a framework (Figure 1) has been developed to explain the different elements and processes of foresight and scenario analysis. Key to this framework is integrating stakeholder engagement processes with scientific analysis and driving foresight analysis from a whole food systems perspective.

Foresight needs to work across scales from local to global with higher level scales providing an important context for change at lower scales. Key to foresight analysis is developing an understanding of the influence of both clear trends (“steam trains”) and rare or unpredictable events (“black swans”). The latter involves developing “what if” scenarios around critical uncertainties. There are different types of future scenarios from those that attempt to be predictive, based on clear trends; those that explore different plausible futures based on uncertainties; and those that develop desirable or normative futures based on stakeholder values.

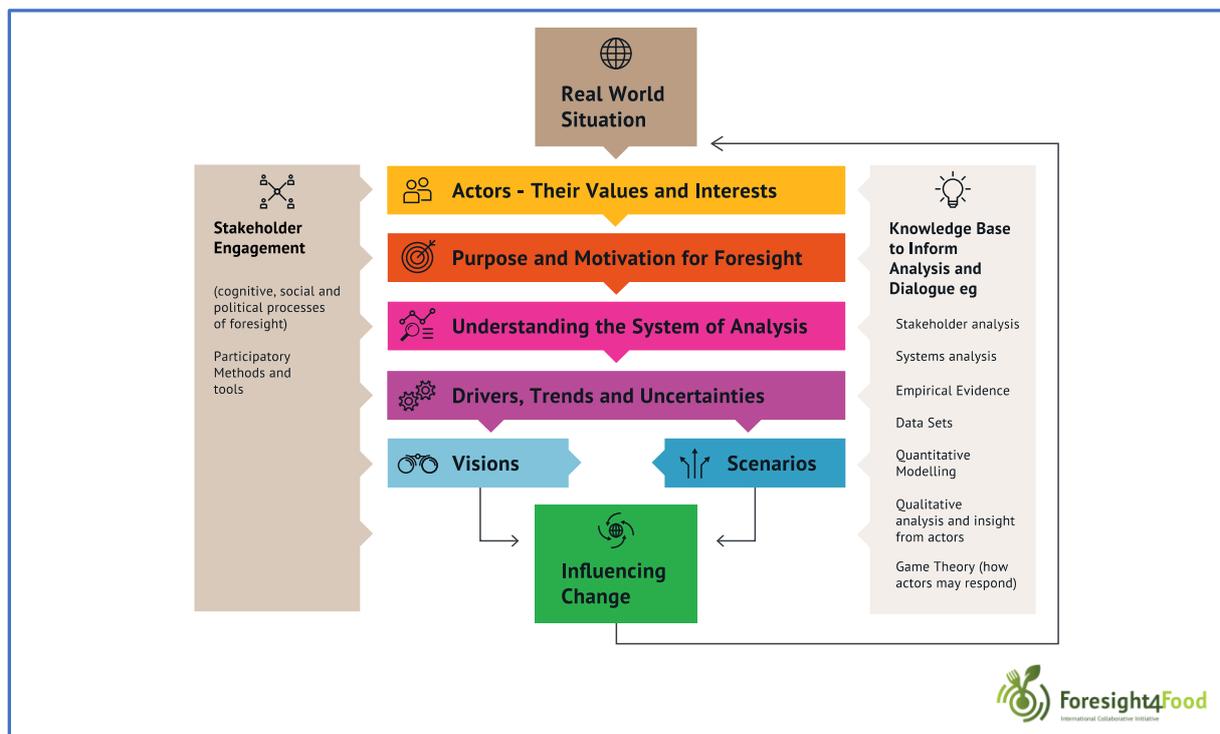


Figure 1 Framework for understanding Foresight.

2.4 Key trends and a historical perspective – Dr Avinash Kishore, Research Fellow, IFPRI

A brief review was given of the planning and foresight exercises undertaken for the agriculture sector in India since the colonial times to the present and tried to draw lessons from the past. In the past, governments' future plans for agriculture focused mainly on bringing scientific technologies and practices to Indian agriculture to increase crop production and productivity. The focus has now shifted from increasing productivity to increasing farmers' income and improving resource use efficiency to promote sustainability of agriculture.

There are three strengths of the recent national or state level planning exercises for improving agriculture:

1. These processes have been initiated by Chief Ministers or Prime Ministers themselves
2. They are comprehensive in scope and cover a whole range of issues related to agriculture and the food sector.
3. They are ambitious in making recommendations for change.

The limitations of some these exercises are:

1. There is a lack of rigorous and transparent analysis.
2. There is a lack of prioritization among a long list of goals and not enough attention is paid to the implementation challenges
3. There is an absence of some kind of benefit-cost analysis of the recommended policies and considerations of trade-offs between different goals.

2.5 Linking with the ACIAR work of SDIP Phase One

The current phase of ACIAR SDIP builds on significant work done in Phase 1 at field and community levels in testing and adapting sustainable and resilient farming systems based on conservation agriculture and sustainable intensification principles in the EGP in the Sustainable and Resilient Farming Systems Intensification (SRFSI) project. This work provides a good basis to recommend changes to farming systems that can have positive impacts on profitability and productivity of farming households, while also saving labour, water and energy. The focus is now on scaling these systems to more farmers and embedding them in local institutions. There is a need to understand what the longer-term impacts are of scaling these systems in time and space, and foresight processes could help answer these questions both for farmers and for local institutions who support them. Foresight for sustainable food systems in the EGP could build on local networks and initial work to model agronomic, biophysical and social impacts of scaling sustainable farming systems, allowing tailored recommendations to local conditions, and interstate and inter-country comparisons.

3 Workshop outcomes

3.1 Clarifying the need and value of Foresight

In general, there was cautious optimism expressed by participants about the applicability of foresight processes for improving food systems planning in the EGP. The benefits to the proposed foresight process were seen in terms of creating an opportunity for learning by bringing together different views and a breadth of intellectual enquiry that can contribute to the bigger picture challenges in the region. Integration and synthesis of existing information, coupled with scenario planning, were seen as being able to enhance the knowledge-policy interface. The process was seen as aligning well with government priorities which is important to achieve buy-in from government agencies and lead to actionable change.

Key points raised about the value of enhanced foresight for the region included:

- Investing in the breadth of intellectual enquiry for a systems perspective to induct new forms of thinking for old problems.
- Being able to discuss the big issues for food systems with a mix of disciplines and using scenario planning to enhance the knowledge-policy interface.
- Developing insights that would be complementary with national policy but linking across scales with a particular focus on implications at the ground level.
- Having a tool/process that can be used at different levels with stakeholders to explore both transformational and incremental changes needed for sustainability.
- An opportunity to support greater learning across the region on food, energy and water issues.
- Valuable to have a perspective that is focused on the EGP, which is different to the national level and other parts of South Asia.

Points raised to ensure foresight work would add value included:

- Link to the wider food system and include bigger donors, the private sector and the people who are making the decisions to make sure that complex messages are communicated clearly and to the right people.
- Need to engage with the private sector.
- Need to consider that change happens not only through policy so consider that 'there are other ways to get things done'.
- Ensure that foresight also focuses on actions that can be taken and that the process does not become too abstract, including actions that can be taken within the time frame of SDIP (i.e. two years).
- Tackling the challenge of multi-disciplinary research in which each discipline has its own boundaries, and there are scientific challenges in achieving integration.

3.2 Themes for Foresight analysis

The workshop explored different dimensions of food systems and the relations between them that would need to be considered in any foresight exercise. The following provides an overview of the issues raised and key themes.

Food systems in the EGP are complex and different from other parts of South Asia. The local context is very important in examining the key challenges and trends and understanding the transformations that might be possible for the region. Any transformation within the food system is likely to have winners and losers. The ability to understand current and future trends and the level of equity within food systems, and the impacts of changes on who can access food is vital. Such transformations also have implications across the system, including resource use intensity and environmental impacts.

There is recognition that drivers of change to food systems are complex and are increasingly interacting and acting synergistically. The key issues and challenges that were identified as needing better food systems foresight included both social and biophysical factors.

Rural transformation. The EGP is a region in flux with high levels of migration in some parts, and highly varied patterns of class, caste and gender engagement. In the future, issues related to rural transformation and food systems include elements of population dynamics, migration, diversification of rural livelihoods, equity around the distribution of food and the flow on effects on nutrition and wellbeing. In terms of agriculture, the number and kinds of farmers who will remain part of the food system is of interest; will smallholders persist or will farms become larger and more progressive? These challenges were identified clearly in both the foresight workshop and by the project's Steering Committee members as being key to considering the future of the EGP and South Asian region more widely.

Gender. Patterns of gender engagement in agriculture and the wider work force generally describe a situation of increasing feminisation of agriculture in the EGP. However, this assumption masks the enormous variability within the region, with some studies showing women's participation in agriculture and the labour force in general declining. Understanding the patterns of women's engagement in agriculture across the EGP is underway in another study within the ACIAR SDIP program, in order to map and link existing macro data with micro level understandings to understand the different situations that exist. Foresight work can help to think about strategies for how women can be better supported and empowered through future transitions, whether it is within feminised or de-feminised contexts. Implications of land rights and finance needs for women's economic empowerment need to be better understood.

Water and climate change. Water is the foundation of any food system, and the EGP is currently an anomaly within the South Asian region, with underdeveloped surface and groundwater resources. This brings opportunities for development, but it is critical that this happens within the context of a robust understanding of the limits on sustainable use of both surface and groundwater. Foresight processes can contribute to understanding both the biophysical and socio-political complexities of water resources development in the EGP.

Current food production practices cost the environment, and prices do not fully account for environmental impacts on water, soil and air. This trade-off between economics and sustainability needs to be explored and understood for future development.

Climate change adds another layer of complexity on water availability and agricultural production systems. Climate uncertainty plays out in precipitation regimes, the interaction with groundwater, changes in temperature regimes and frequency of extreme events, all of which are very real threats to agricultural production and rural livelihoods in the EGP. This region is dependent on conditions in the upstream Himalayas, and there is high uncertainty in the understanding of how this will be affected by climate change in the long run. Foresight work can incorporate downscaling climate models for the EGP/South Asia to explore the

impacts on rainfall, temperature and extreme weather and generate recommendations for climate resilience.

Politics. The EGP spans parts of Bangladesh, India and Nepal, and thus is subject to the implications of inter-governmental arrangements. There is a feeling that the mindset on regional cooperation needs to be improved in real time, as political influence will continue to have broader impacts on food systems. Wider geo-political drivers are also evident in the region, for example in Bangladesh where cross-border migration is an example of a sudden shock that has impacted on the entire food system in Cox's Bazaar.

Farming Systems, Diversification and Landholdings. Farming systems will need to change fundamentally over coming decades to respond to the pressures of a need for dietary diversity, climate change and resource scarcity and the need for viable livelihoods for farmers. This needs to be understood within a context of land fragmentation. There is a need to have a better foresight perspective of how diversification of production in the EGP could unfold. It is critical to explore the issues of environmental and economic risk more deeply.

Consumption and Demand - Nutrition and Health. It is important to look at food systems from the consumption and demand side, recognising that to meet future healthy nutrition requirements there will be a need for greater dietary diversity. Food quality issues are also increasing important both at a production and post-harvest level.

Markets and Trade. Regional trade is likely to become increasingly important but is hampered by poor regional infrastructure and weak institutions for enabling efficient cross-border movement of agriculture and food products. In looking at markets that can support viable farming livelihoods, there is a need to explore how farmers can capture greater share of consumers prices and the role of aggregation models.

Soil. While much discussion looked at economic and market issues, it was clearly stressed that ultimately food systems depend on health soil and that the region is suffering from a multiplicity of soil problems. The longer-term consequences of the decline in soil health need more analysis.

Once ranked, key challenges identified by one group were water availability and access; markets; diversification; farming systems and farmers in the future; climate change adaptation; trade (agricultural and non-agricultural); and food quality and quantity.

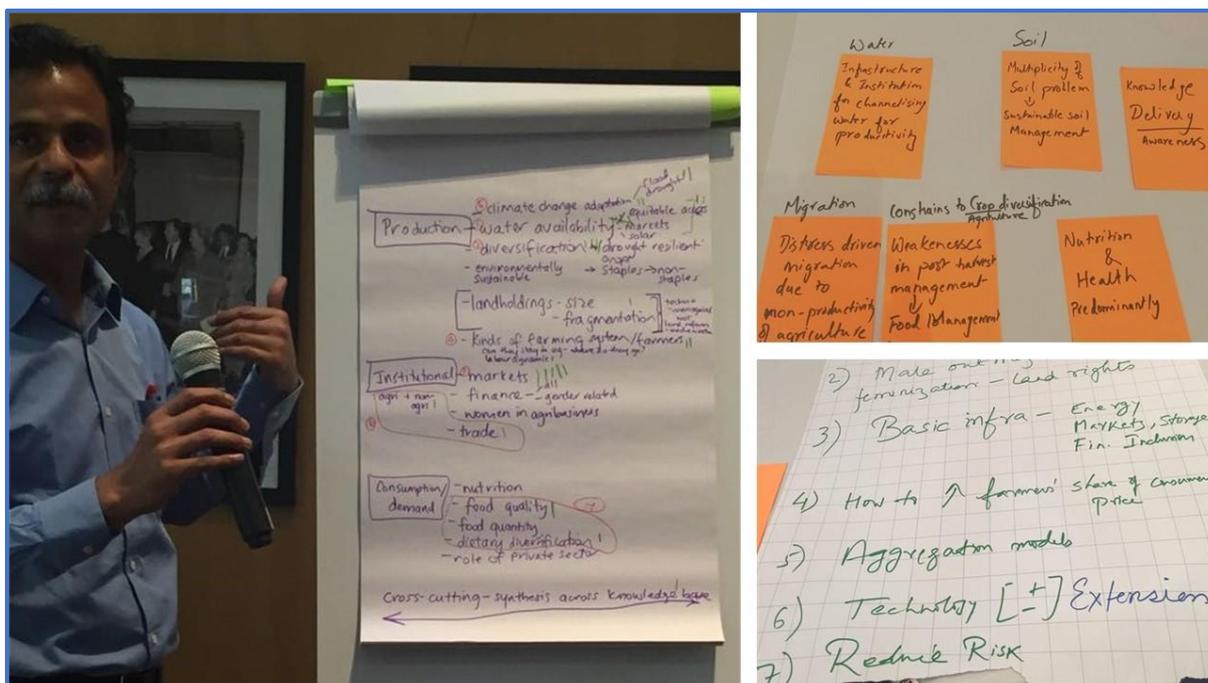


Figure 2 Examples of key challenges for the EGP identified by small group work.

3.3 Activities for enhancing regional Foresight capacity

The workshop provided an initial brainstorming of ideas for the SDIP program team to follow-up on and take forward in developing the foresight component.

Foresight processes may be a useful approach to understand future trends in food systems, and the major drivers of change. Any foresight work must ask questions across the food system, and that can be framed well with an understanding of the levels of uncertainty in the analysis. They can be useful in keeping a focus on the long-term, rather than responding to a series of crises. The Sustainable Development Goals offer one opportunity to check which parts of the system are being considered and connected. Foresight work under ACIAR SDIP can make a contribution in terms of facilitating a Community of Practice to create space for discussions between people who would not normally have a chance to come together; to collate existing information; to create scenarios for the future; and to engage with the wider constituency to enable both interaction and action.

There was a strong emphasis on the importance of knowing the audience, particularly policy makers, and looking for ways to concretely engage with policy processes. This would require a synthesis of policy level opportunities. It was also recognised that the private sector is critical to engage with and there the foresight process needs to encourage synergy between the public and private sector. Overall foresight should be a learning processes that captures lessons and identifies gaps and shows where additional research is needed. There was discussion that often the challenge is not a lack of policy but a lack of implementation capacity and foresight work needs to recognise this reality.

3.3.1 Key activities suggested

- Providing synthesis of information on key mega trends affecting food, water and energy such as:
 - Population
 - Urbanisation
 - Climate change
 - Regional Integration and trade
 - Energy demand projections
 - Consumer demand for food types and quality/safety issues
- Undertaking focused foresight studies information synthesis on priority topics including:
 - Future water availability impacts of climate change
 - Options for farming systems diversification including impact of remittances
 - Market development
 - Mechanisation
 - Gender
 - Food quality and safety
- Providing a synthesis of information on existing regulatory capacity and government plans.
- Develop a better mapping of the food system across scales that shows flows of information, finance and influence.
- Prioritise issues for study within the foresight work that are widely accepted to be of importance to people and resources; where there is some flexibility in people and policy-makers to make some changes to improve the situation; and there are tested technology, policy or institutional options available to make the improvements. Such issues could be mapped as in **Figure 3** (e.g. 3 axis diagram) issues that meet all three criteria and thus have a greater potential for change.
- Undertake scenario modelling looking at best and worst-case outcomes by assessing the likely impact of scaling different approaches and policy responses.
- Compiling and supporting mainstreaming of best practices in food, water and energy management and how these can be taken to scale, with a particular focus on community level transitions.
- Tracing the transformation of farming systems and supply chains from small-scale to large corporate to understand the scale of change and the winners and losers.
- Assessing the research/knowledge to policy, impact and review cycle/loop.
- Undertake better risk profiling for the food system and how technology, policy and state capacity can be better used to reduce risks and make explicit the risks of following a business as usual approach.
- Exploring future scenarios for optimal use of water in cropping through interregional water flows using trading and pricing mechanisms.
- Understanding the dynamics of institutions before investment related to will for change, capabilities and capital.
- Mapping of country and state level external policy and economic drivers of consumption patterns, including cultural and media influences.
- Exploring what is needed to move strategies to have a more positive impact.
- Developing normative perspectives on what would constitute a better future.

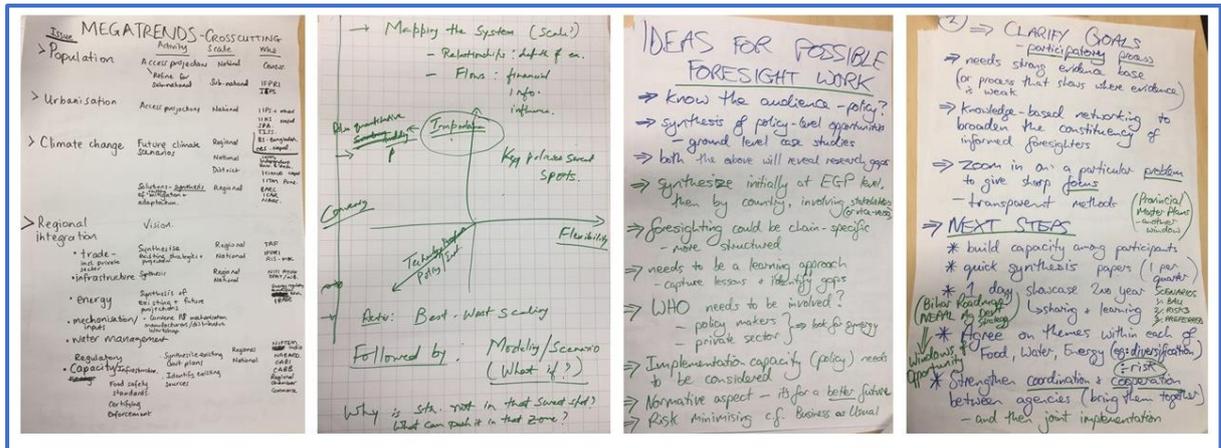


Figure 3 Examples of potential activities to contribute to foresight work for the EGP, showing the range of approaches proposed by working groups.

3.4 Overall goals and approach

- Developing a strong evidence base and highlighting areas where evidence is weak
- Mapping existing studies, synthesis of existing information, gap analysis
- Building the capacity for foresight among participating organisations and individuals
- Creating a knowledge-based networking approach that broadens the constituency of informed individuals and groups interested in foresight
- Strengthening coordination and cooperation between agencies and providing space for bringing them together and encouraging joint implementation
- Focusing in on particular problems to give a sharp focus
- Being transparent about the methods being used
- Working at different scales from the EGP through to national, provincial and local levels.
- Holding showcase sharing and learning events that would discuss scenarios based on a) business as usual, b) risks, c) preferred futures

4 Draft action plan by the Foresight group

Following the workshop, and based on the outcomes, a broad outline for a workplan has been developed. The key activity areas to be followed up on include:

- 1) Mapping of food system dynamics in the region, and collation and graphic presentation of information on key drivers, trend and uncertainties
- 2) Synthesis of key reports, data sets, models and regional processes related to food systems
- 3) Assessment of the scenarios for the longer-term impacts of current key national food and agriculture policies
- 4) In-depth foresight analysis of priority areas (e.g. ground water, gender, trade and markets)

- 5) Regional capacity development activities on foresight and scenario analysis including a workshop on Food Systems modelling
- 6) Local foresight exercises in the four field site nodes of phase one work
- 7) A regional scale “2020 Vision” foresight dialogue event with leaders from policy, business and science

The Foresight component, comprising of IFPRI South Asia, the ACIAR SDIP Program Coordinator and Manager, and the DFAT SDIP Food Security Adviser will jointly implement a Small Research Activity and scoping exercise for a six-month period beginning in July 2018. The component will produce brief status papers and infographics, with particular attention to synthesising existing information on the following themes:

- Groundwater: availability, access and quality
- Energy for irrigation
- Gender
- Migration and Labour
- Crop diversification
- Trade and markets
- Risk and climate change
- Food Policies and food based social safety net programs
- Agricultural extension

Each brief will present the most important facts on that resource or issue and highlight what we know and what we do not know about it. Food System mapping will be conducted for Bangladesh, India and Nepal using participatory approaches. The Food System maps will be an analytical description of the key actors in the food system and the major policies that influence the system. This exercise will also identify the main trends and drivers of changes in the food system and highlight uncertainties regarding the future. Core partners will be convened who will collaborate to accomplish the larger Foresight4food project in the region.

Appendix A: Agenda

(Note: the actual workshop process diverged slightly from the agenda to accommodate extended discussion)

TIME	SESSION	SPEAKERS
INAUGURAL SESSION		
Session Facilitator: Andrew Campbell, CEO, ACIAR		
09.30-09.35	Welcome remarks	Andrew Campbell, CEO, ACIAR
09.35 – 09.40	Setting the scene	Kuhu Chatterjee
09.40 - 09.55	Remarks on need for Foresight thinking for food, water and energy systems in South Asia	PK Joshi, IFPRI
09.55-10.20	Introduction to Foresight 4 Food initiative	Jim Woodhill, SDIP Advisor, DFAT
10.20-10.30	Questions from participants	
10.30-11.00	Tea break	
SESSION 2		
Session Facilitator: Jim Woodhill, DFAT Advisor		
11.00-11.45	Opportunities and challenges for the food systems in EGP: Today and Tomorrow 1. What are the most compelling issues and challenges for the EGP that require better agrifood systems foresight? 2. What are the important food – energy - water linkages and how will they evolve in the EGP?	Country Groups <ul style="list-style-type: none"> India Group Coordinator- P.K. Joshi, IFPRI Bangladesh Group Coordinator – Mohammed Mainuddin, CSIRO Nepal Group Coordinator – Aditi Mukherji, ICIMOD
11.45-12.00	Reporting back from groups	
SESSION 3		
Session Facilitator: P.K. Joshi, IFPRI		
12.00-12.15	Looking back on looking forward	Avinash Kishore, IFPRI, South Asia
12.15-13.00	Partners, Processes and Methods for Foresight Studies in the EGP 1. What are the data/knowledge gaps? 2. How do we build a forum/consortium for foresight studies? Potential partners?	Country wise groups: <ul style="list-style-type: none"> India Group Coordinator- Aditya Pillai, TAF Bangladesh Group Coordinator – Farah Kabir, ActionAid Nepal Group Coordinator – Madhav Belbase, Govt. Of Nepal
13.00 – 13.15	Reporting back from groups	

13.15-14.00	Lunch	
Session 4 Session Facilitator: Kuhu Chatterjee		
14.00-14.15	Achievements of SDIP-1 (SRFSI) and how do we leverage it for foresight studies?	Tamara Jackson, ACIAR
14.15-15.15	Using Foresight Studies for informing local level policies and decision making: How do we bring foresight thinking into policy and investment decisions by private & public sector at different scales?	Open discussion
15.15-15.45	Tea Break	
Session 4 Session Facilitator: Jim Woodhill, DFAT Advisor		
15.45-16.45	Foresight Study Framework for the EGP Interactive session: what does success look like over next two years?	Jim Woodhill, DFAT Advisor Avinash Kishore, IFPRI
16.45-17.00	Wrap up	
1700	End	

Appendix B: List of participants

1. Dr. Shivendra Srivasatava, NITI Aayog. shivendraiari@gmail.com,
2. Dr. P. K. Joshi, Head, IFPRI South Asia, New Delhi. p.joshi@cgiar.org
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Appendix C: Potential organisations for engagement, identified by workshop participants

SECTOR	ORGANISATION
Government Programs and policy agencies	Indian MNREGA 100 days employment program
	Annual pre-budget consultations in India, NITI Aayog
	Government of Bihar - Chief Minister's Office
	Government of West Bengal, Agriculture Minister's office
	Bureau of Land Survey, Bangladesh
	Bihar Government Rural Livelihoods program (Jeveeka)
	National Institution for Transforming India (NITI AYOOG)
	Planning Commissions in Bangladesh and Nepal
	Safe food authority Bangladesh
	National rainfed Agriculture Authority (NRAA), Ministry of Agriculture, India
	Political parties
	Youth leaders
	Panchayats and local body leaders in extreme climates
Private Sector organisations	2WT/small machinery manufacturers in Bangladesh
	Regional Chamber of Commerce
	CA/CASI Machinery Manufacturers
	Agrovet and other private sector locally relevant, India, Bangladesh and Nepal
	Chamber of Commerce (CII, FCCI, FMDCCI)
	Drip/sprinkler irrigation manufacturers
	Credit providing banks
	Private sector: Frito Lays, Kurkure, Haldirams, Snacks producers in India
	Development Banks
	Lal Teer, Seed Company, Bangladesh

	Local Bangladesh businesses
	Industry Associations ASSOCHAM
	Tractor manufacturers (TAFE, Sonalika, John Deere, New Holland)
	Multinational corporation in agribusiness
	National Bank for Agriculture and Rural Development (NABARD)
	Indian Farmers Fertiliser Cooperative Limited (IFFCO)
Farmer led organisations (entrepreneurs and cooperatives)	Asian Farmers Association
	Farmers Unions - All India
	Farmer Producer Organisations and Farmer's Clubs in West Bengal
	Kendrio Krishak Maitri (KKM) Bangladesh-farmers association
	National federation of forest owner groups, Nepal
	National federation of water user associations
	Nepal Madhesh Foundation-Terai region
	PAANI Committee Satkhira, local water user association in Bangladesh
	Self help groups in Nepal
Research agencies and Policy Think tanks	Bangladesh Agricultural Research Centre (BARC)
	Bangladesh Agricultural University
	Bangladesh Institute for Development Studies
	Bangladesh Maize and Wheat Research Institution
	Centre for Agriculture and Bioscience International (CABI)
	CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
	International Maize and Wheat Research Institute (CIMMYT)
	National Centre for Agricultural Policy (NCAP), ICAR, New Delhi
	Dr Ahsan Ullin, Bangladesh
	Environmental Change Institute (ECI), Oxford University
	Himalayan Institute of Development
	International Centre for Climate Change and Development (ICCCAD) Dhaka

	ICIMOD HIMAP process and annual regional meeting
	Institute of Economic Growth (IEG), New Delhi
	Indira Gandhi Institute for Development Research (IGIDR)
	International Institute for Applied Systems Analysis (IIASA) nexus modelling initiative, Austria
	Institute for Integrated Development Studies (IIDS) Kathmandu
	Indian Institute for Human Settlements (IIHS), Bangalore, India
	International Institute for Population Sciences (IIPS)
	Indian Council of Agricultural Research (ICAR)
	Indian Institute of Tropical Meteorology (IITM) Pune
	International conference on the rights of the river
	International Food Policy Research Institute (IFPRI)
	International institutes, universities working on food systems in the region
	Integrated Research and Action for Development (IRADe)
	National Institute of Food Technology Entrepreneurship and Management (NIFTEM)
	Nepal Agricultural Research Council (NARC)
	Research and Information Systems for Developing Countries (RIS)
	South Asian network on Economic modelling (SANEM) Dhaka
	Institute of Water Modelling (IWM), Bangladesh
	School of Planning and Architecture (SPA), India
	Tata Cornell Institute on Agriculture and Nutrition (TARINA)
	Tata Institute of Social Sciences (TISS)
	The Asia Foundation (TAF)
	Tushar Shah, IWMI, (Water Policy)
	Uttar Banga Krishi Viswavidyalaya (UBKV), Coochbehar, West Bengal
	Water Museum Bangladesh
	World Bank (WB)
NGOs	Action Aid Bangladesh

	ADS
	Centre for Development for Human Initiatives (CDHI), Jalpaiguri, West Bengal
	RDRS Bangladesh (NGO)
	Shushilon, Khulna, National Agritech project, MOA Bangladesh
Global and Regional Forums	Bangladesh Bhutan India and Nepal (BBIN) Initiative
	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Initiative
	FAO Asia Pacific Regional Conference
	FAO Dhaka
	FAO Regional Representatives Bangladesh, India and Nepal
	Inter Governmental Panel for Climate Change (IPCC)
	G20
	G7
	Global Forum for Food and Agriculture (GFAR)
	World Economic Forum, DAVOS
	OECD
	New Climate Economy (Stern Report)
	SDGs
	SAARC Agriculture and Seed Bank
	World Climate Forum
	World Council on Food Security
	ARSENIC Network
	Artistic community