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Report of the

expert consultation on small farmer-focused good governance in crop agriculture in Asia and the Pacific

Chiang Mai, Thailand
29-30 November 2010

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edited by
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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
REGIONAL OFFICE FOR ASIA AND THE PACIFIC
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Foreword

The Asia-Pacific region has the world's largest number of hungry people and is the focus of global efforts to achieve the first Millennium Development Goal and the World Food Summit (WFS) target to reduce food insecurity by half by the year 2015. This depends significantly on increasing production and productivity in agriculture and making agricultural systems resilient and sustainable, in which agricultural governance has a crucial role.

Agricultural governance is concerned with the guidance and management of the development process of a country's agricultural sector through the functioning of its institutions, implementation of policies, adherence to acts and regulations, and discharge of mandated responsibilities by all involved stakeholders. The rapid spread of a market-led paradigm of economic development since the 1980s has placed the issue of governance at centre stage in poverty reduction in developing countries. Accordingly, FAO has launched an initiative to improve understanding of agricultural governance, with particular focus on the local impact of governance on smallholders and the opportunities they have to influence or correct the governance system.

As part of the initiative the FAO Regional Office for Asia and the Pacific brought together experts from across the region to share knowledge and views on the issue with the aim of helping policy-makers and others involved in local-level agricultural governance in the region. The objective of the consultation was to improve crop sector governance in line with the FAO Strategic Objective A: Sustainable Intensification of Crop Production (SO A) for enhanced productivity, environmental sustainability, adaptation to threats of climate change, empowerment of the small farmer, strengthening of partnership approach and sustainable development focused on poverty alleviation.

One of the outcomes of the consultation is to produce guidelines for developing a training module to improve crop sector governance for the benefit of smallholders and suggestions for a regional FAO project on capacity building of different stakeholders on agricultural governance.

Experts from Bangladesh, India, Indonesia, Nepal, Pacific Island countries, Pakistan, Thailand and Viet Nam attended the expert consultation.

Hiroyuki Konuma
Assistant Director-General and
Regional Representative for Asia and the Pacific
Food and Agriculture Organization of the United Nations

Table of contents

I. **BACKGROUND**

The first Millennium Development Goal (MDG 1) envisages halving the proportion of those suffering from extreme poverty and hunger by 2015. This is widely recognized as both a distinct goal and an enabling condition for the achievement of many of the other MDGs. Reducing the number of hungry people depends significantly on increasing production and productivity in agriculture and making agricultural systems resilient and sustainable, all of which are influenced by agricultural governance. Agricultural governance, therefore, plays a key role in the successful achievement of the MDGs.

While farming is an individual activity, collective resilience and sustainability depend on the way key resources for agriculture are managed across the agro-ecosystem. These resources include both direct production requirements such as water, land, seed, fertilizer, know-how, equipment and credit, and indirect requirements such as storage infrastructure, transport and marketing. Technical approaches to sustainable intensification of crop production now increasingly stress the need for a holistic approach, embracing conservation agriculture, integrated pest management and integrated plant nutrient management, in conjunction with efforts to improve storage, marketing and distribution. Just as technical approaches need to converge and support each other, the system of governance for sustainable intensification will need to be holistic to address the complex 21st century issues in agriculture.

Society has evolved rule systems to govern access to these resources and control their quality. Water may be allocated or distributed through community-managed irrigation systems or schemes. Land is allocated according to local land tenure customs and practice. Seeds and other inputs are usually required to meet benchmarks for quality. New technologies introduced in agro-ecosystems are usually subject to prior scrutiny to minimize risks. Farmers may have access to shared community resources such as equipment or storage facilities. Rules may govern local water quality levels where use of agricultural inputs can cause contamination of ground water.

These rules enshrined in laws, customs or practices can be described as a whole as the general system of agricultural “governance”.

In the past, the system of governance of agriculture in developing countries tended to consist of a patchwork of regulations and schemes. The result was often unsatisfactory with conflicting objectives, contradictions and overlapping policies leading to confusion. On the other hand, as science and technology have developed, new areas of governance have emerged, for instance for GM crops, hybrid seeds and adaptation to climate change. However, it is widely believed that agricultural governance, as substantially intended for the benefit of farmers, is a comparatively recent phenomenon and still evolving.

The rapid spread of a market-led paradigm of economic development since the 1980s has placed the issue of governance at centre stage in poverty reduction in developing countries. Agricultural policies and strategies have tended to emphasize the need for pro-poor development and improved sectoral governance.

For a long time, government was the sole regulator in agriculture. More recently, other entities such as farmers' cooperatives/organizations, trade or sub-sector bodies, large-scale commercial producers and input suppliers have contributed to agricultural governance. They have been involved in articulating new needs, testing new regulations on a pilot basis and supporting compliance with regulations.

Addressing the concerns of individual smallholder farmers, however, remains difficult and there is an evolving space for farmers' organizations to play an active role in promoting agriculture and farmers' welfare. There is also a perennial need to monitor governance arrangements to see that the overall system does not get corrupted or distorted in its impact on farmers. Studies in different countries reveal much scope to improve agricultural governance in the sector as well as many lessons to be learned.

Accordingly, FAO has launched an initiative to improve understanding of agricultural governance, with particular focus on the local impact of governance on smallholders and the opportunities they have to influence or correct the governance system. This initiative seeks to focus on practical issues in agricultural governance, specifically those that directly affect the well-being of small farmers.

As part of this initiative, the FAO Regional Office for Asia and the Pacific brought together experts from across the region to share knowledge and views on the issue with the aim of helping policy-makers and others involved in local-level agricultural governance in Asia-Pacific developing countries.

II. INTRODUCTION

The expert consultation titled *Small Farmer Focused Good Governance for Crop Agriculture in Asia and the Pacific* was organized from 29 to 30 November 2010 in Chiang Mai, Thailand by the Food and Agriculture Organization of the United Nations (FAO) Regional Office for Asia and the Pacific. Experts from Bangladesh, India, Nepal, Indonesia, Pakistan, the Pacific Island Countries, Thailand and Viet Nam as well as FAO attended the consultation. The list of participants and the programme are attached in Annexes 1 and 2.

The main objective of the consultation was to identify opportunities to improve crop sector governance in line with FAO Strategic Objective A: "Sustainable Intensification of Crop Production (SO A) for enhanced productivity, environmental sustainability, adaptation to threats of climate change, empowerment of the small farmer, strengthening of partnership approach and sustainable development focused on poverty alleviation".

III. OPENING OF THE EXPERT CONSULTATION

The Expert Consultation opened with the Deputy Regional Representative, FAO Regional Office for Asia and the Pacific, Mr Man Ho So welcoming the participants on behalf of Mr Hiroyuki

Konuma, Assistant Director-General and FAO Regional Representative for Asia and the Pacific. Mr So informed that FAO had launched this initiative to improve understanding of agricultural governance, with particular focus on the local impact of governance on smallholders and the opportunities they have to influence or correct the governance system. The expert consultation was aimed at improving crop sector governance in line with FAO Strategic Objective A.

Mr So stated that, in recent years, the idea had gained ground in view of the low growth of crop productivity in the region, which was negatively affecting achievement of the United Nations Millennium Development Goal Number 1 to reduce poverty and hunger by half by the year 2015. It was widely believed that good governance associated with crop production systems could play a crucial role in increasing small farm crop productivity, thereby enhancing the food and livelihood security of small famers.

Governance was also critical for setting benchmarks and enforcing quality standards of inputs such as seeds, chemical fertilizers and pesticides, he stated. Awareness of the ecological situation of a particular region and surrounding areas was an important aspect of governance with respect to technology transfer to farmers. Mr So observed that the consultation would focus more on small farmers, considering their vital role in increasing both crop production and productivity. It was very important to know how governance processes were shaping small farmer agriculture in the context of globalization.

He noted that FAO attached top priority to this consultation and looked forward to its recommendations which would help in developing future programmes and policies in order to ensure good crop governance. The text of the full speech of Mr So is attached in Annex 3.

Mr Subash Dasgupta, Senior Plant Production Officer, AFS, RAP then invited the participants to introduce themselves and state their expectation from the expert consultation. Mr Dasgupta later delivered the vote of thanks.

IV. KEYNOTE ADDRESSES

Mr Mike Robson, Senior Plant Production and Protection Officer, FAO headquarters, made a keynote presentation titled" Agricultural Governance and Smallholders: Issues in the Sustainable Intensification of Crop Production". He explained agricultural governance in the context of sustainable crop production intensification. Emphasizing the need for sustainable intensification of production and the types of programmes needed for this, Mr Robson highlighted some governance related challenges to be addressed for the success of sustainable intensification programmes.

Governments can influence the adoption of productivity-enhancing practices by farmers through appropriate policy instruments, schemes, regulations, subsidies and frameworks, as well as through participatory research and extension and use of broadcast media, formal and non-formal education, financial, tax and other incentives; and through sustained investment for capital formation – both physical and human. Together, these constitute the enabling environment for crop production intensification.

While much attention is given by policy-makers to the challenge of balancing competing demands on natural resources, the reality is that a balanced portfolio of ecosystem-scale social and economic policies will amount to very little in the absence of effective systems of governance in four major areas: (i) service delivery, (ii) regulation, (iii) control of corruption and (iv) enforcement of underpinning rights. In practical terms, sustainable crop production intensification will struggle to escape a pilot scale without appropriate attention to governance.

The paper identified a number of challenges for agricultural governance using a framework put forward by the World Bank (WDR, 2008). Mr Robson concluded by listing some ingredients of good governance relevant to smallholder crop production as: effective and well-managed, public-private linkages; local ownership in service delivery and resource allocation decisions; stakeholder inclusion in regulation; and transparency as a pre-requisite for preventing corruption. The text of the full paper of Mr Robson is attached in Annex 4.

Mr Subash Dasgupta, Senior Plant Production Officer, FAO Regional Office for Asia and the Pacific, made a keynote presentation titled "Promote Improved Awareness and Understanding of the Problems of Agricultural Governance that directly Affect Small Farmers' Wellbeing and Strategy to Improve Governance in Crop Sector in line with FAO's Strategic Objective A". Mr Dasgupta stated that agricultural governance deals with the guidance and management of the development process of a country's agricultural sector through the functioning of institutions, implementation of policies, adherence to acts and regulations, and discharge of mandated responsibilities by all stakeholders. An empirical study using World Bank aggregate governance indicators and a cross-country panel sample found that a country having better governance can have more agricultural outputs, given the same amount of agricultural capital stock and land. Better governance can indirectly improve agricultural productivity by driving agricultural capital accumulation.

The paper discussed the challenges of agricultural governance in developing countries of the Asia-Pacific region and the importance of new approaches to agricultural governance in implementing the FAO strategy of sustainable crop production intensification for achieving sustainable increases in agricultural productivity (COAG/2010/3). The paper proposed strategic options to improve the governance system for agriculture. The text of the full paper of Mr Dasgupta is attached in Annex 5.

V. COUNTRY PAPERS

BANGLADESH

Governance crisis in production and distribution of hybrid seeds and its impact on market behaviour and trust deficit among farmers – Maqbul Hussain Talukder

In Bangladesh, 80 percent of the vegetable crop area is planted with hybrid varieties, mostly imported by private seed companies. Hybrid rice cultivation started in the country in 1998 and in 2008, the area under hybrid varieties reached 1.1 million ha. In the beginning, hybrid rice

varieties were grown primarily in the *Boro* season (December to June). Recently, two hybrid varieties were released for cultivation in the transplanted *Aman* season (July to November).

Country situation analysis

Government policies and strategies for hybrid seed production and distribution

The national seed policy adopted in 1993 provides a policy and strategy framework for seed system management in the country. It provides an institutional arrangement to breed, develop and maintain improved crop varieties with special emphasis on those suitable for low-input and high-output agriculture. The government introduced a separate hybrid rice seed registration system to facilitate import of hybrid rice varieties.

Governance of the country's seed production and distribution system is carried out through the following public sector institutions: Seed Wing, Ministry of Agriculture; National Seed Board; Seed Certification Agency; Department of Agricultural Extension; Bangladesh Agriculture Development Corporation; and National Agriculture Research System. In addition, private seed companies, nongovernmental organisations (NGOs), and seed associations are involved in seed production, marketing and distribution.

Gaps/obstacles in hybrid seed production and distribution

Lack of seed production facilities

Other than the public sector Bangladesh Agricultural Development Organization, no institution in the seed sector has large plots allowing sufficient isolation, for production of hybrid seeds. Private seed companies usually lease land or contract growers for seed production at a competitive price. In addition, they have to invest in providing inputs like irrigation, fertilizer and insecticides as well as in post-harvest processing and storage. Many seed companies are risk-averse and reluctant to make such investment in this sector. Banks prefer to give loan for import but not for production of hybrid seeds.

Lack of proper monitoring and quality control

Limited manpower and technical capacities in the public sector seed administration are major constraints to monitoring seed quality. Many seed companies complain that delayed receipt of field results from the Seed Certification Agency, delays marketing of their seed. The weaknesses of the seed quality monitoring system also lead to sale of adulterated and mislabelled seeds.

Lack of farmer interest

Of late, many farmers have lost interest in hybrid rice because of the cost of the hybrid seed and their inability to use the saved seeds for the next season as with open pollinated varieties.

Farmers also lack necessary skills to cultivate hybrid rice variety. Inferior management of the hybrid crop gives yields that are often the same or less than high-yield varieties (HYVs).

Opposition by environmentalists

Although hybrid rice cultivation is not the same as cultivation of genetically modified (GM) crops, many environmental groups in the country are campaigning against hybrid rice cultivation on grounds that are technically unfounded. These include hybrid rice displacing local varieties, consuming more fertilizer and water than HYVs, reducing soil productivity and being more vulnerable to pests and diseases.

Price disparity

A major obstacle to private seed companies entering the seed market is the lack of competitive prices due to the subsidy provided to the public sector seed producing organization which sells seed at prices lower than the production cost. This is a great disincentive for private companies to produce quality seeds in large quantities.

Possible solutions/suggestions

Extend support to private seed companies

Private seed companies play a vital role in introducing hybrids in Bangladesh, mostly through import. There will be a remarkable change in hybrid cultivation if hybrid seeds are produced locally. Incentives that can be provided to private seed companies include: low-interest bank loans; lease of government land for seed production; provision of inputs at subsidized prices; post-harvest processing support at government processing centres; tax holidays for research-based seed companies; and intellectual property protection.

Avoid duplication in variety trials

Under hybrid rice seed release guidelines, exotic hybrid varieties can be introduced in the country based on the satisfactory result of two consecutive years of trials which are very expensive and time consuming. It may not be required for the same variety which is marketed by different local companies. Therefore, DNA finger print of the variety may be done in order to avoid duplication in trials. In addition, a policy is needed allowing foreign companies to work with local partners. In this regard, seed technologists suggest collecting the parent line instead of F1 seeds.

Capacity development in Seed Certification Agency

Building human and technical capacities of the Seed Certification Agency, the government institution which conducts variety trials and monitors seed quality.

INDIA

Importance of developing a new approach for extension services in India – K. D. Kokate

Agricultural extension system in India

India's agricultural extension system is one of the world's largest, comprising the Indian Council of Agricultural Research (ICAR); the *Krishi Vigyan Kendra* (KVK – farm science centre) Agricultural Technology Information Centres providing agro-advisory and technology backstopping; central and state-level ministries responsible for agriculture and rural development; NGOs; and farmers' organizations.

Present extension perspectives

In the national agricultural research system, KVKs plays vital role in agricultural advisory and technology backstopping. The Agricultural Technology Information Centres (ATIC) provide 'Single Window' support through supply of technology inputs, products, information and advice. In addition, ICAR is implementing the National Agricultural Innovation Project (NAIP) in a 'Consortium' mode, linking basic and strategic research with sustainable rural livelihood security. The Agriculture Technology Management Agency (ATMA) created under a World Bank-supported project is piloting a decentralized extension approach. The Indian Metrological Department provides agro-meteorological services using a variety of modern communication devices, electronic and print media.

Despite this pluralistic extension system in India, a host of emerging issues are confronting agriculture due to the changing agricultural scenario, economic liberalization and globalization.

Emerging issues

Water use efficiency seldom exceeds 40 percent. There is a significant yield gap due to inadequate synchronization of critical inputs and critical messages. Although relatively strong at the macro-level, micro-level capacities remain. Nutrient use efficiency is low. At the current production level, 20 million tonnes of nutrients are used against 30 million tonnes of applied. The growing number of small farmers, comprising almost 80 percent of farmer population and the declining average size of operational holdings, demand an entirely different approach to both input and output markets due to their unique characteristics. Timely availability of quality seeds of improved varieties suited to various agroclimatic conditions is a major challenge for farmers. There is a significant dearth of specialized agricultural technologies and enterprises for hill regions and resource-poor areas lacking basic infrastructure and amenities.

The National Seminar on Agricultural Extension organised by Ministry of Agriculture, Government of India in 2009 identified problems with current agricultural knowledge management such as: (i) prevalence of top-down approaches with limited attempt to consider farmers' preferences and needs; (ii) production advisory services dissociated from marketing and sales; (iii) inadequate quality and quantity of digital agricultural extension material; (iv) marginal

levels of participation of agricultural education and research institutions; and (v) insufficient customization and 'localization' of content in extension messages.

Future approaches to agricultural extension

1. Promote professionalism and pluralism in extension by developing a potential 'consortia' of key players such as public, private, nongovernmental and farmers' organizations at national as well as global level. Individual farmers or farmers' groups may be considered as partners of the development process rather than merely as beneficiaries.

2. The extension system and subsystem has to concentrate on (a) increasing factor productivity, (b) increasing income by integrating production and post-harvest technology and (c) providing multiple farming or integrated farming system. In this context, the extension system should make a serious effort to synthesis and integrate information and technology in a 'knowledge and technology capsule' form to be delivered through location-specific, participatory, gender-sensitive and cost-effective extension approaches. Upscaling of ICT models developed by national and international institutions/organizations is needed to strengthen e-enabled extension.
3. A group-based farming and marketing approach can be promoted by building social capital such as women self-help groups, farmers' interest groups, commodity interest groups, and farmers organization. These groups and federations need to be involved for faster technology dissemination and enabling greater control over marketing to minimize the role of intermediaries, thereby improving farmers'incomes.

4. A high level 'working group' or 'task force' at the global level needs to be constituted to prepare a 'road map and vision' of agricultural extension with aim of eradicating hunger and poverty.

5. To meet the present complicated challenges before Indian agriculture in general, and the extension system in particular, there is a need for a national institute 'Indian e-Extension and Agriculture Knowledge Management Institute" (Ie-EAKMI) to upgrade research and the content of extension science, evolve different modules for knowledge management and agro-advisory services, and develop location- as well as commodity-specific technology backstopping methodologies for upscaling. An All India Coordinated Research Project (AICRP) on agricultural extension may be started for developing 'livelihood extension models for smallholders and resource-poor' and these could be upscaled through the wide network of KVKs.

6. To take up the global initiative, it is recommended to have a mega-programme in agricultural extension exclusively for developing extension science content, knowledge management, capacity building and technology backstopping models of agricultural extension. Further, there is an urgent need for concrete steps in the form of institution development and backstopping by establishing an 'International Agriculture Extension and Knowledge Management Institute' (IAEKMI) under the CGIAR (Consultative Group on Agricultural Research) system, preferably in South Asia which has the large bulk of

resource-poor farmers struggling to meet basic need such as food, nutrition, livelihood, information and technology.

PAKISTAN

Importance of local government in ensuring access to arable lands to resource-poor and small farmers of Pakistan – M. Khalid Hanif

Pakistan's agriculture sector suffers from low levels of technological penetration, an inadequate and dilapidated rural infrastructure, and lack of proper marketing facilities. The predominance of smallholder farming makes the application of modern technology costly.

Inadequate availability of arable land is another important factor limiting growth in agricultural productivity. The only way to expand crop area is by reclaiming from the 9.4 million ha of cultivable wasteland. Increasing water supply by constructing new dams in rainfed areas, reducing water transport losses and using water efficient irrigation techniques can result in a sizeable increase in the cultivated area. To help rehabilitate degraded lands, farmers could be provided technical support to grow crops suited to these lands.

Other challenges before farmers and agricultural policy-makers include agricultural trade liberalisation imposing strict sanitary and phytosanitary (SPS) requirements, the likely adverse impact of climate change, water scarcity and environmental degradation.

Pakistan faces increasing water scarcity and the National Water Strategy envisages raising irrigation efficiency to 50 percent from the current level of 40 percent. Even if these targets are met by 2025 and taking into account groundwater supplies, a shortfall of between 22 to 33 percent in irrigation water supplies would remain. Existing irrigation practices constrain yield increase and do not support sustainable quality production. Promoting farm mechanization is an important ingredient in accelerating agricultural growth.

Efforts are being made at federal and provincial level to set up facilitation units for participatory nursery and vegetables seed production with a mandate to produce hi-tech vegetable seeds and fruit planting material. The Ministry of Food and Agriculture's "National Commercial Seed Production Programme" needs fiscal allocation for a period of five years. Two small projects aimed at compliance with World Trade Organization (WTO) and Plant Breeders Rights, and hi-tech (hybrid & Bt) seeds production are also awaiting funding.

Pakistan has a highly underdeveloped input supply, grain storage and handling system at all levels including at farm, regional and port, impeding grains sector performance. Annual grain storage losses are estimated at between 12 to 18 percent depending on seasonal factors, or a minimum of US$900 million per annum.

Although the horticulture sector has tremendous potential for economic development, it has not received adequate attention in terms of technology, mechanisation or investment.

Likewise, the agro-processing industry remains under-developed despite its huge potential for growth. The government needs to change its approach, focusing on a few selected initiatives to facilitate a private sector-led integrated development of the sector. The public sector should, therefore, proactively support new business models and integration along the value chain, for example by promoting farmer groups/cooperatives on the production side. As part of the integration strategy, the private sector will make investments in all parts of the value chain. However, there is a room for public support to develop a win-win environment for all stakeholders. There is also need to offer incentives and financial and technical assistance to the private sector.

Agricultural research in Pakistan is conducted by federal and provincial government agencies as well as various higher education agencies. The private sector has a limited role in agricultural research in Pakistan, accounting for just 6 percent of the country's total public and private agricultural R&D spending. Agricultural research is not delivering the knowledge needed by end users.

The agricultural strategy is focused on sustainable food security, increasing productivity, commercial agriculture, import substitution, income diversification and export orientation. It aims at conservation of the natural resource base and mitigation of water shortages.

NEPAL

The role of governance in improving equitable access of small farmers to productive natural resources, technology, finances and markets – S. P. Khatiwada and Y. N. Ghimire

Following the abolition of the landlord system in 1964, access to agricultural land in Nepal is controlled by the Land Act 2001 that specifies a ceiling on individual land ownership, protects rights of tenants and sets rent on agricultural land. The cultivable land area is limited by the country's geographic location and efforts to bring new areas under cultivation are fraught with unpredictable environmental risks.

This has prompted the government to amend the Forest Act 2049 (1993) to hand over management of some potentially productive forests to local communities as a source of employment and income. Forest patches are also allocated to targeted groups of poor households living in nearby areas on a long-term lease of 40 years. In addition, the Water Resources Act 2049 (1992) recognizes water users' group as legal entities. Community forest programmes directly benefit poor users through improved access to and use of forest products, and indirectly through investment of forest user funds in community activities that generate income.

The public sector agricultural research and extension system is responsible for developing and disseminating new technologies. The Nepal Agricultural Research council (NARC) is the main national institution generating agrotechnologies. The Department of Agriculture (DOA) is responsible for transfer of crop technology and the Department of Livestock Services (DLS) for livestock production. NARC focuses on four major research areas – generating food crop

technologies for food security, developing crop technologies of market value, rural employment and natural resource management in relation to environmental sustainability.

Low access to credit is a key reason for rural poverty in Nepal. Only between 30 to 35 percent of the population is covered by formal financial institutions. Up to 70 percent people in the country still rely on merchants, money lenders, traditional cooperatives for credit but they charge exorbitantly high interest rates (NRB, 2008). Until 1993, microfinance administered through the Small Farmer Development Program (SFDP) was the key source of credit for small and marginal farmers. Due to the high overhead cost and low repayment rate, the SFDP was later redesigned into the Small Farmers Cooperative Limited (SFCL) managed by the farmers themselves. This was followed by other microfinance development programmes such as the Priority Sector Lending Program (PSLP), the Intensive Banking Program (IBP), the Production Credit for Rural Women (PCRW) and Rural Self-Reliant Fund (RSRF) schemes.

Improving the access of small, marginal and women farmers to markets and promotion of agribusiness is central to the government's rural employment creation and poverty reduction policy.

Key constraints to agricultural marketing in Nepal include the following:

1. Lack of rural processing facilities and transport network.
2. Highly perishable nature of high-value crops, especially vegetables and mushrooms.
3. Scattered production of high-value crops making difficult their collection and transport to markets.
4. Weak value chain linkages between producers, traders and processors are a major constraint for agribusiness development in the country.
5. Lack of uniformity in quality of high value commodities among producers and regions due to the use of different varieties of crops, crop diseases and pests, inefficient crop management and low yield.
6. Inadequate access to technology and credit are also hindrances to high-value crop production and marketing.
7. Low capacity of resource-constrained farmers to adjust farm income requirement during gestation period which discourages transformation of subsistence to commercial farming.
8. Difficult for small farmers to participate on equal terms in a value chain which also has economically powerful players with big business operations. (ADB, 2005).
9. Low level of access to livelihood resources including agricultural markets and infrastructure.
10. Weak bargaining power of small and marginal farmers who are forced to sell at lower prices to meet immediate cash needs of family.

Future concerns

1. Agricultural marketing and processing must focus on improving efficiency in the value chain between farmers and consumers rather than on production alone.
2. Developing linkages between farmers, private sector processors and traders, and improving their capacity.
3. Agricultural development approaches must include social inclusion initiatives and market information dissemination.
4. Development of a package of activities aimed at the poor and disadvantaged communities to move them out of poverty and allow them to participate in commercial agriculture.
5. Due consideration for gender equity, participatory practices and processes as well as fairness in dealings between stakeholders and public-private partnerships.

THAILAND

Reducing food safety and quality risks through improved governance: Thailand's case study – Mr Anut Visetrojana

The responsibility for food safety control in Thailand is with two main authorities – the Ministry of Agriculture and Cooperatives (MOAC) and the Ministry of Public Health (MOPH). The MOAC exercises regulatory oversight through four subordinate departments responsible for (i) the crop and non-crop food sectors; (ii) domestic, up- to middle-stream production; (iii) the export supply chain of agrifood products; and (iv) import of meat and fish products. The MOPH is responsible for quality control of downstream domestic food production as well as imported food through its two subordinate agencies.

Food safety inspection is conducted by product categories by the above departments and agencies assigned responsibility for a specific category. In addition, a public-private partnership was initiated to develop standards for voluntary compliance by the private sector in line with national and international standards and to control their supply chains for domestic and export markets. THAIGAP has been developed for the horticultural supply chain and SSP (Sustainable Shrimp Program) for the shrimp supply chain.

The regulatory framework for controlling food safety in Thailand is comprehensive, including laws and regulations covering agricultural standards, plant quarantine, hazardous substances, animal feed, plant variety and fisheries.

The institutional and regulatory bases of food safety control in Thailand are constantly evolving thanks to government initiatives to ensure the national food safety system is capable of handling existing and emerging challenges. A series of legislative reforms since 1997, two years after the World Trade Organization (WTO) agreement, have established the National Bureau of Agricultural Commodity and Food Standards (ACFS) under the MOAC with the following mandates:

i) Set up standards for primary agricultural, processed and food products.

ii) Enforce, monitor and supervise the food safety programme.

iii) Deliver certification and accredit certification body.

iv) Coordinate and negotiate non-tariff barriers covering SPS and TBT issues as well as on international standard setting organizations.

v) Serve as information and communication centre for primary agricultural, processed and food product standards.

vi) Function as secretariat of the National Committee on Agricultural Commodity and Food Standards.

vii) Serve in other capacities as required by law, the cabinet, or the minister.

In 2008, new legislation, "The Agricultural Standards Act B.E. 2551 was enacted to empower the ACFS on agricultural standards control under the supervision of the National Committee on Agricultural Standards, the statutory body under the new law.

Concerted efforts in the food safety sector have produced impressive results. After completion of the first national strategic plan on food safety, more than 250 000 farms in the country, including crop, fisheries and livestock, have been certified with GAP/CoC standards.

About 3 000 export-oriented food establishments, including packing houses, food manufacturers and feed/aquatic feed plants were certified with GMP/HACCP standards.

More than 17 000 domestic food establishments, 60 percent of them GMP-certified, will be encouraged to work further towards HACCP certification. Proactive food safety governance in Thailand has produced handsome dividends allowing the country to continually expand exports to different parts of the world and emerge as a key exporter of food commodities – rice, sugar, tapioca, shrimp and poultry meat products.

Despite the considerable success, more effort is needed to bring a large number of small-scale producers within the formal food safety programme. Most importantly, there is a need to focus on increasing awareness among food producers, consumers and the public in general, about potential food supply chain risks.

Major food safety issues in the country are as follows: food-borne/animal diseases such as avian flu; meeting stringent standards on veterinary drug residue and other unintended contaminants (both levels and methodology requirements); and traceability requirements to meet restrictive standards in some countries. Adequate, science-based food safety measures meeting domestic and international requirements are needed to strengthen food safety control in the country. These include national capacity building for risk assessment, more research on risk assessment along the entire food chain, and greater focus on information sharing and database building to support risk analysis.

The key elements of strengthened national food safety strategy are:

- Emphasis on preventive measures throughout the food chain, for e.g. mandatory implementation of GAP in farms, GHP and GMP systems in food establishments, and HACCP for all exporting companies.
- Emphasis on hygiene in small and medium, primary and secondary food producers; inspection and risk analysis skills for legislators, supporting laboratories, service providers and standard-setting agencies
- Control of traceability for exporting food manufacturers
- Greater collaboration and networking among agencies responsible for food safety control
- Greater public awareness of food safety and demand for better enforcement of food safety control.

Efforts to meet food export safety standards must be judged by their ability to benefit domestic industry or create a positive spillover for food safety in the domestic food system. More generally, efforts to improve food safety in developing countries must be evaluated in terms of their impact on food security and poverty alleviation.

Food safety issues have attracted international attention because these play an increasingly important role in determining developing countries' access to export markets. At the same time, food suppliers in developing countries have to improve food safety for the growing urban middle class domestic market. As developing countries produce and consume more perishable foods than before, such as meat, milk, fish and eggs, food safety has become especially important for domestic consumers and in trade among developing countries.

INDONESIA

Capacity building of officials and field staff of service providers on good governance (Indonesia) – Mr Ir Monty S. Padmanagara

In Indonesia, the conventional training programme for agriculture officials (AO) includes the following five steps:

a) Basic training for all recruits on general administrative and behavioural skills (ethics, anti-corruption, good governance)
b) Specialized training after several years as AO, either in technical/administration or functional subject matter as appropriate to the job
c) Advanced training after five to ten years in the job in their own field, for e.g. leadership training for administrators
d) Applied training in general methods and techniques i.e. lecture, discussion, field practice, laboratory, reading assignments, comparative study and case study.
e) Competitive out-of –country training programmes funded from government scholarships

Most government officials responsible for agricultural governance at different tiers of administrative jurisdiction – sub-district, district, and province – had to follow the entire training track before the introduction of administrative reforms in 2001. The consistency in this training approach suffered with the introduction of decentralization and regional autonomy. New challenges brought to the fore in the larger context of governance in crop agriculture and administrative reforms are summarized below:

Decentralization/Autonomy

Devolution of power as part of public sector administrative reform in Indonesia has led to empowerment at district administration level with considerable administrative authority and autonomy in decision-making. An unintended consequence of the reform process was a growing sense among district-level officials of being empowered with absolute authority, resulting in an autocratic, arrogant style. In many cases, decisions are based on party affiliations and not necessarily on the merit of individual cases.

Leadership development

Growing nepotism in the recruitment process has led to individuals lacking leadership qualities being put in responsible positions in the public agricultural administration system. Many Field Extension Workers (FEWs) who have key responsibility as local agricultural leaders, have little understanding of the strategic role of FEWs as catalysts of agricultural development.

Understanding of agricultural policy

The current training structure for AOs does not envisage specific programmes for agricultural policy training.

Resource allocation

Resource allocation for agricultural development while reforms were being implemented, was not adequate to realize the sector's growth potential. During the 1970s and 1980s, agriculture was the cornerstone of national economic development and Indonesia became self-sufficient in rice during this period. Subsequently, the focus shifted from the agriculture sector and the country now struggles to maintain self-sufficiency in rice production

Mismanagement of administrative reforms

The goal of administrative decentralization was to make governance more efficient by delivering services to the doorstep in the country's remote areas and enhancing the local government's role in development at provincial and regional level. However, inadequate political oversight of the administrative reform process meant there was little change in service provision and levels of corruption among public officials reached a record high. The focus on training as a tool to equip public officials with knowledge and skills to perform their job efficiently, and as a career advancement requirement, was greatly diluted. Political patronage and favouritism, rather than

professional competence reinforced by institutional training, became the key consideration in career advancement and incentives to public officials.

Addressing the weaknesses and gaps identified above requires a review of administrative decentralization with a focus on its political ramifications, and to balance it with devolution of power and resources by agro-ecosystem zones, to spur local capacities. The goal is to prevent misappropriation of the potential benefits of decentralization by corrupt politicians and officials. There should be renewed emphasis on institutional training as a tool to develop leadership at all levels and as a key consideration for professional advancement.

PACIFIC COUNTRIES

Strengthening governance of crop agriculture to enhance competitiveness of smallholder farmers in Pacific Island countries – Pradeep Singh, Mohammed Umar and Jagdish Bhati

The Pacific Island Countries and Territories (PICTs) are a group of 22 countries and territories located in the Pacific region which includes continental and volcanic islands as well as low and raised coral atolls. The PICTs have a total population of 9.50 million scattered across an ocean area of approximately 30 million sq km of which less than 2 percent is land.

Small-scale, subsistence agricultural production systems are predominant, with mainly root and tuber crops such as sweet potatoes, taros and yams being cultivated. A wide variety of tropical fruits, vegetables, spices and medicinal plants are also harvested. Over the last two decades, food self-sufficiency in the PICTs has been declining and the region is now perennially food deficit.

This paper highlights options for strengthening agricultural governance particularly in the crop sector to enhance the competitiveness of smallholder farmers who account for 79 percent of all farms in the PICTs.

Limited access to land is the major constraint to agricultural production in the PICTs. The average smallholding size is two hectares. Therefore, governance of access to land – land tenure – is crucial for agricultural development in the PICTs. More than 80 percent land in the PICTs is held under traditional, customary or communal tenure. As this tenurial system does not confer direct ownership rights, there is little incentive for efficient land operation. This is also an obstacle to obtaining credit from financial institutions. Some PICT governments are moving to modify customary tenure systems towards individual land rights. Others have introduced land registration, bringing some rigidity to the tenure system.

Infrastructural inadequacy is an important constraint to crop sector development in the PICTs where most farm producers are small, village-based and sell independently with limited bargaining power in either input supply or product markets. Marketing channels are also underdeveloped with a lack of market information. PICT governments need to support the development of the contractual system in agricultural marketing. Development of producer groups, successful producer cooperatives and NGOs could be an integral part of development and evolution of the contractual system. Government policies can facilitate value-adding

ventures by creating a more favorable general economic environment for exporters as well as improving rural and marketing infrastructure and public services.

Quality and safety standards – sanitary and phytosanitary (SPS) – are a weak link in export marketing chains in the PICTs. As exporters they have to ensure their products meet quarantine safety standards in export markets. As importers they have to ensure their own quarantine systems are adequate to enable imports of improved varieties and prevent entry of pests.

Strengthening governance

Past public sector intervention in agricultural markets in the PICTs were often ill-informed, poorly implemented and marked by lack of transparency, resulting in failure. However, intervention declined in the 1990s as many PICT governments were implementing structural adjustments. This had a positive impact on the private and public agriculture sectors but left many market failures unresolved due to the general weakness of the private sector in these countries. The state now has to enhance investment in public goods like agricultural research and development, extension and training, transport and rural market infrastructure, and agricultural statistics. Structural adjustments in many PICTs led to the ministries of agriculture redefining their roles and developing new capabilities. The 'Agreement on Agriculture' has made the agricultural sector in these countries very sensitive to trade-related issues. Efforts to increase crop production in the PICTs for global markets means that the sector is increasingly linked with other economic sectors as well as with other economies at regional and global levels. It is advisable to develop regional trade agreements or to join such agreements to supplement supplies (i) for potential export markets or (ii) to meet local demand if domestic production capacity is limited. The PICT governments should develop quality/safety standards and a certification mechanism, and position niche products having comparative advantage under a common brand name. The Pacific countries should focus on agribusiness, marketing and trade development aimed at supporting their smallholder crop producers. A positive rural investment environment for the development of a competitive agribusiness sector can be created by financial sector reforms. Farmers' organizations, NGOs and other civil society groups in the PICTs can help overcome market failures inherent in smallholder agriculture by facilitating input supply, extension and marketing. Development partners can also pool expertise and resources to support governance reforms.

Countries in the Pacific lack adequate policy analysis and formulation capacities. Agricultural statistics collection, analysis and management systems need strengthening. The PICTs find it difficult to meet food quality and safety standards due to weak regulation implementing capacities and can be supported by development partners in this. Niche and traditional crop products from these countries lack market competitiveness due to limited grading, standardization, processing and other value-adding facilities. Increased investment in market infrastructure will help improve their market competitiveness. Land reform is politically sensitive but is on the agenda of many PICTs. Papua New Guinea, Marshall Islands, Samoa, Solomon Islands and Tonga are implementing or planning land policy reforms aimed at community and national economic development. The challenge is developing new modalities for land use agreements consistent with traditional/customary arrangements.

VIET NAM

Institutional support and strengthening of community-based farmers' group to improve agricultural governance at grassroots level – Nguyen Ngoc Luan

Community-based farmers' groups (CBFGs) where farmers join in collective agricultural production have developed significantly over the last ten years in Viet Nam. Initially, CBFGs were small groups of between three to ten farm households engaged mainly in purchase of production inputs and sharing of experiences and information. In the early 2000s, the new Cooperative Law paved the way for the emergence of cooperatives as better organized CBFGs, helping improve production efficiency and household incomes. In 2010, the country had more than 360 000 farmers' groups, 18 244 cooperatives and 53 cooperative unions with more than 12.5 million members.

The development of farmers' groups in Viet Nam was a major milestone in the revitalization of the rural economy. The CBFGs helped improve farmer incomes and stabilize rural livelihoods. They have also enabled local authorities to take over environmental protection and natural resources management functions. However, the rapid growth of CBFGs in the country has also highlighted issues of governance that constrain their effectiveness. Four recent case studies have identified the following issues in the functioning of CBFGs:

- Lack of adequate institutional support: inadequate supporting policies in credit, planning, training, marketing, and accessing information. The agricultural extension system plays an important role in helping CBFGs but mainly promotes production technologies rather than developing institutional arrangements to encourage adoption of such technologies.
- Lack of cooperation from local authorities: In many areas, local authorities are obstacles to cooperatives' activities as they are afraid these models are new and not managed like agricultural service cooperatives.
- Farmers and their CBFGs are small scale and many do not respond to market demand. Traditional farm production has not changed, especially in remote areas and ethnic minority communities. Farmers have limited ability in organizing and managing collective activities. CBFG/cooperative leaders are not active in seeking development opportunities and CBFGs face production risks due to low governance levels.

Addressing these gaps requires the following steps:

- Strengthening CBFG organization and operation by training and capacity building.
- Raising awareness of CBFG members as well as local authorities/staff.
- New CBFG approaches and policies in different regions.
- Build on effective CBFG models for different agro-ecological and socio-economic settings.
- Encouraging farmers to join collective economic activities.
- Creating linkages among different commodity chain stakeholders.
- Careful building of agricultural product brand name or geographical identification.

- Increasing women's role in CBFG activities.

State budgetary support must be stepped up with a significant investment increase in agriculture to boost the CBFGs role in the rural economy of Viet Nam. International partners such as FAO and other relevant UN organizations can provide technical assistance through pilot projects on institutional support and capacity building of CBFGs.

VI. DISCUSSION

The following major themes were covered:

(i) Efficient delivery of goods and services
(ii) Effective regulation
(iii) Control of corruption
(iv) Enforcement of rights

The following key messages were extracted from national experiences across the region.

(i) Governance and efficient delivery of goods and services

General

1. Clear procedures are needed for delivery of public services to smallholders based on transparency, public involvement, with public service performance assessed annually.

2. Upgrade managerial and technical capacity of the whole range of public agricultural services to address the multiple demands of farmers.

3. Government should apply ICT in remote areas for efficient delivery of goods and services, and enable farmers to take advantage of inputs. This should include minimum levels of broadband or mobile phone access.

4. Government should identify opportunities for "one-stop" delivery systems for farmers for increased efficiency and transparency.

5. Support farmers' associations and involve them in dialogue with the public sector on governance issues related to needs of smallholders.

6. Agriculture action plans can promote focused interventions keeping in view local strengths, limitations, gaps and possibilities for improved production and productivity.

Access to know how - agricultural extension

1. Deploy more qualified extension personnel to transfer knowledge to grassroots (should be able to explain the importance of balanced fertilizer use).

2. Fix extension targets and implement a monitoring and evaluation system with feedback from farmers/growers to ensure service delivery.

3. Develop "knowledge and technology capsules" for farmers.

4. There is a role for the "third sector" comprising NGOs and farmers in extension; industries such as sugar, palm oil can also help improve know-how of raw material suppliers located nearby.

5. Improve service delivery quality by using local personnel.

6. Incentives such as pay and benefits for extension agents to match those available from NGOs and others.

7. Establish an e-extension and agriculture knowledge management institute at national and, even, regional level to address issues of access to know-how; this can be linked to initiatives such as the KVKs in India.

8. Develop appropriate extension methodologies to reach farmers such as mobile units to transfer skills and provide immediate testing of results.

9. Need to develop new non-traditional sources of technology backstopping, agro-advisory and marketing to stakeholders.

Access to inputs – seed, fertilizer, credit, etc.

1. Develop consortia of public-private, nongovernment and farmers organizations for both new forms of input supply and distribution, and post-harvest handling, processing and marketing.

2. Strengthen farmer knowledge of input supply.

3. Where these are subsidized or controlled, provide input prices or terms for access to finance to end users so they know what the prices or terms should be, to prevent intermediaries taking unfair advantage of farmers; here ICT can help.

4. Consistency in policy formulation regarding prices, rates and terms to enable private sector planning.

5. Increase involvement of farmers' associations in input supply systems/chains.

6. Strategies to provide necessary infrastructure for grassroots delivery of goods, investing in input delivery systems proportionate to agriculture's share in GDP.

Other

1. Develop close direct linkages from producer to consumer.

2. Farmers cultivating public land under customary ownership may not have access to development loans and there is need for land tenure reform or relaxation of credit rules. (In Fiji, locals farming land under customary ownership cannot get loans while an immigrant lessee can).

3. Organise farmers for collective activities under a formal legal status such as cooperatives.

4. Public investment in rural infrastructure such as for marketing and grading which, in the PICTs is an element in governance.

5. A market intelligence system to support governance and for farmers to know "the going rate" (particularly relevant when logistical constraints are serious).

(ii) Governance: effective regulation

Improving regulation

1. Modernise regulatory frameworks such as laws, rules and regulations to create incentives for private sector investment and assumption of a greater role in providing farmers with quality inputs and services by: (a) liberalising regulations as much as possible to eliminate unnecessary barriers which provide opportunity for corruption; (b) making regulations more farmer-friendly by ensuring they are understandable by farmers or farmers' groups.

2. Ensure regulations are relevant to local socioeconomic conditions.

3. Develop effective monitoring mechanisms for implementation of regulations.

4. Find joint management opportunities to share rights and responsibilities by authorities and communities.

5. Build effective communication with those to be regulated to ensure their cooperation; a public-private partnership should favour two-way communication.

6. Train and pay inspectors appropriate to their level of responsibility to help control corruption.

7. Government initiatives for consistent management of public-private partnerships in the interests of farmers and consumers.

8. Regulations formulation based on producer and consumer interests.

9. Arrangements to monitor and control private sector delivery of goods and services, encouraging large input companies to follow quality standards such as ISO.

10. Creating conditions of market access for farmers through inspection of production facilities and produce.

(iii) Governance: control of corruption (defined as misuse of entrusted power for private gain)

Introduction

Crop agriculture systems are vulnerable to following kinds of corruption:

- Financial (paying money for favourable treatment or to "speed up" administrative tasks)
- Soliciting payment by sabotaging service requests (for e.g. document pages go missing)
- Not performing duties for which one is paid by public funds ("time corruption")

The five corruption control tools include: (i) political leadership; (ii) accountability; (iii) capacity; (iv) transparency; and (v) implementation and voice.

Reducing the impact of corruption relating to governance in crops

1. Publicise service procedures such as requirement, time frame and performance targets for crop-related services for both input suppliers and smallholder farmers.

2. Aim to reduce service delivery time.

3. Develop independent supervision and monitoring, including outsider supervision, and handling of complaints.

4. Where procedures and time scales are not being met, apply sanctions in administrative court. Decisions should be given in shortest possible time in case of legal resolution.

5. Zero tolerance when cases come to light.

6. Encourage communities to have voice on cases of corruption.

7. Implement large-scale communication campaigns by the government and private sector to reduce corruption.

8. Anti-corruption organizations can give mobile phone messages if public officials are trying to extort money and encourage the public to report.

9. Pay salaries appropriate to duties of public sector officials.

10. Ensure people's right to information with information access schemes specifying who can apply; everything should be available based on policies and rules, rather than discretion (apply fairness). Transparency should be the principle down to the village level.

11. Need for accountability based on performance indicators at all levels; systems need to be set up and checked annually. Tools such as "quarterly result framework" documents used as benchmarks/targets and made available to public.

12. Categorise products by risk categories and reduce unnecessary inspections to limit opportunities for corruption.

13. Legalise urgent administrative requests, providing a transparent scale of charges for such rapid requests and not at the discretion of service providers.

14. Inculcate "honesty" on the government side.

15. Simplify processes and regulations to reduce opportunity for corruption.

16. To ensure service delivery at local level, wherever possible, this should be by someone accountable to end-users and the community.

17. Modern technologies such as mobile phones can help reduce corruption by providing direct access to services.

18. Farmer income guarantee programmes in place of price guarantee schemes can help reduce corruption; identified community-level producers can join farmer income guarantee programmes where payments are made directly to farmers' accounts.

19. Need for an open forum where farmers can speak about issues they face.

20. Tackle private corruption by recognizing that farmers may also cheat in claiming subsidies (sometimes in collusion with processors).

(iv) Governance: enforcement of rights and duties

1. Improve rights of land lessees to have access to finance/subsidy.

2. Land tenure rules and land reform (in some places).

3. Adopt polluter-pays or similar principle.

4. Improve awareness of rights such as consumer protection and whom to complain to.

5. Ensure access to and sharing of benefits from utilization of genetic resources.

6. Legal support for rights enforcement.

VII. RECOMMENDATIONS

1. Upgrade the planning, administrative, and technical capacity of public sector agricultural service institutions for improved productivity, effectiveness and efficiency.

2. Enhance institutional capacity of national agricultural extension services with more qualified personnel; involving third-parties such as farmers' organizations and NGOs in extension services; improving delivery and knowledge content of extension messages; and developing non-traditional sources of technology backstopping, agro-advisory, and marketing to stakeholders.

3. Promote strategic investment in innovative approaches including new communications technologies for supply and distribution of inputs (seed, fertilizer, credit), including post-harvest handling, processing, and marketing – for e.g. a consortia of public-private, NGOs and farmers' organizations; greater involvement of farmers' associations in input supply systems/chains; and upgrading infrastructure to facilitate input delivery to farmers.

4. Designate a fair share of agricultural GDP for rural infrastructure development to improve farmers' access a wide range of services, including direct linkages from producer to customer; provide market intelligence so farmers know current prices; reform land ownership and tenant rights regarding access to loans; set up organizations with formal legal standing to facilitate collective activities and bargaining power.

5. Modernize regulatory framework for agricultural governance – laws, rules, regulations, codes – with a pragmatic approach to avoid under- and over-regulation in order to eliminate inefficiency, rent-seeking and bureaucratic inertia which stifle innovation/entrepreneurship, and bolster incentives for the private sector to take a greater role in provision of public goods and services with adequate social responsibility and safeguards to protect public health and consumer interests.

6. Provide adequate institutional backstopping for regulatory control to reach the target audience and produce desired results such as mechanisms for effective monitoring of implementation of regulations; train and compensate inspectors commensurate with responsibility for regulatory oversight; build effective communication with those to be regulated to gain their cooperation (public-private Partnership should favour two-way communication).

7. Manage public-private partnerships consistently in the interests of farmers and consumers through appropriate government initiatives including monitoring of private sector quality control activities in delivery of goods and services; encourage large input companies to follow internationally recognized standards such as ISO.

8. Control corruption (defined as misuse of entrusted power for private gain) in public agricultural services by making judicious use of all recognized tools for fighting corruption – prudent political leadership, accountability, capacity, transparency, implementation and voice.

9. Strengthen transparency in service provision by publicizing procedures.

10. Institute requirements, timeframes and performance targets for crop-related services for both input suppliers and smallholder farmers; require service providers to reduce delivery delays; develop independent supervision and monitoring including outsider supervision and complaints handling.

11. Enhance institutional capacity to reduce corruption by simplifying processes and regulations; equip anti-corruption organizations with smart technologies such as mobile phones to issue alerts and enable the public to report instances of corruption; offer compensation packages to public sector officials appropriate to their duties; undertake large-scale communication campaigns to reduce corruption in both public and private sectors.

12. Institute accountability at all levels through a systematic periodic review of performance indicators by using tools such as “quarterly result framework”, documents as benchmarks/targets and making these available to the public.

13. Increase the voice of public by encouraging community participation in corruption control and enacting a “Right to Information” for the people with all eligible to seek information and everything available based on policies and rules rather than on discretion.

14. Create conditions for enforcement of rights and duties; improve access of land lessees to finance/subsidies; institute land tenure rules and land reform, in some places; adopt polluter-pays or similar principle; improve awareness of rights; ensure access and benefit sharing regarding genetic resources; legal support for enforcement of rights.

15. FAO to develop a training module to assist member countries develop awareness on improving crop sector governance – for training senior-level agriculture sector managers and decision-makers on key aspects of governance in the context of FAO’s strategic objective of sustainable intensification of crop production.

16. FAO to develop a regional capacity building technical cooperation project (TCP) to assist decision-makers at local, national and regional level in member countries.

Annex 1

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Annex 2

Programme

Expert Consultation on Small Farmer-Focused Good Governance in Crop Agriculture in Asia and the Pacific
29-30 November 2010
Chiang Mai, Thailand

Monday	**29 November**
08.00 hours:	Registration
09.00 hours:	Opening Session
	Opening address: FAO Deputy Regional Representative
	Introductory speech: Subash Dasgupta, RAP
	Introduction of the participants
	Announcement of the programme and timetable
	Photograph
10.00 hours:	Tea break
10.30 hours:	Agricultural Governance and Smallholders: Issue in Sustainable Intensification of Crop Production (FAO)
11.00 hours:	Promote improved awareness and understanding of the problems of agricultural governance that directly affect small farmer wellbeing and strategy to improve governance in crop sector in line with FAO's SO A (FAO);
11.30 hours:	Open discussion
12.00 hours:	Presentation of country paper (presenter will get 15 minutes for presentation and 15 minutes for discussions)
13.00 hours:	Lunch
14.00 hours:	Presentation of country paper (contd.)
17.30 hours:	General discussions on country presentations
18.30 hours:	End

Tuesday 30 November

09.00 hours: Open discussions on the identification of gaps / obstacles to improving agriculture governance

10.00 hours: Open discussions on possible solutions / suggestions to fill up the identified gaps/obstacles

11.00 hours: Tea break

11.30 hours: Drafting regional project outline and questionnaire

13.00 hours: Lunch

14.00 hours: Drafting outlines for developing "Training Manual"

15 00 hours: Drafting recommendations

16.00 hours: Presentation and adoption of recommendations

16.30 hours: End of the Expert Consultation

Annex 3

Welcome address

Expert Consultation on Small Farmer-Focused Good Governance in Crop Agriculture in Asia and the Pacific
29-30 November 2010
Chiang Mai, Thailand

By

Man Ho So
FAO Deputy Regional Representative for Asia and the Pacific

Distinguished participants,

Dear colleagues,

On behalf of Hiroyuki Konuma, Assistant Director-General and FAO Regional Representative for Asia and the Pacific and also on my own behalf, I welcome all of you to this Expert Consultation on *Small Farmer-Focused Good Governance in Crop Agriculture in Asia and the Pacific***.**

It is an honour for me to address this distinguished audience on such an important issue. This consultation has been arranged to highlight the importance of agricultural governance in general and crop-governance in particular. In recent years the idea has gained ground due to the low rate of crop productivity growth in the region, which is negatively affecting achievement of the United Nations Millennium Development Goal Number 1 – Halving poverty and hunger in the world by the year 2015. It is now widely believed that good crop governance can play a crucial role in increasing the crop productivity of small farmers, thereby enhancing their food security and reducing their poverty.

In the long process of its evaluation, ideas and ground realities regarding agricultural governance have changed substantially. As innovations in science and technology have expanded our frontiers of knowledge and increased food production, more governance is required to regulate the use of new technologies. Examples are cultivation of GM crops, production of hybrid seeds, and transboundary movement of crop genetic resources. Agricultural governance is also critical for setting benchmarks and enforcing quality standards of inputs such as seeds, chemical

fertilizers and pesticides. Awareness of the ecological situation of a particular region and surrounding areas is an important aspect of governance with respect to the transfer of technology to farmers. In short, agricultural tasks that by their very nature do not lend themselves to control by individual farmers have to be brought under the regime of agricultural governance to derive the maximum benefit for individual stakeholders as well as society as a whole.

In view of the above this consultation is deemed timely and useful to share the experiences of member countries on this emerging and evolving issue. Although the concept of agricultural governance is not new, it is still difficult to define precisely because of its many interactive elements. Agricultural governance deals with the nature and practices of agricultural management, regulation and development, as well as monitoring and evaluation through transparency, accountability, participation and a fair legal framework.

The rise of globalization and the rapid spread of economic development in the 1980s placed agricultural governance at the centre stage of poverty reduction in developing countries as a means to increase agricultural productivity and enhance food security. Of late, all agriculture related policy documents and strategies including the World Bank's Poverty Reduction Strategy Papers (PRSPs) and United Nations Development Assistance Framework (UNDAF) guidelines underscore the need for pro-poor development programmes that rely on the need for improving sectoral governance.

This consultation will focus more on small-farmers, considering their vital role in increasing both crop production and productivity. It is very important to know how governance processes are shaping small farmer agriculture in the context of globalization.

I was informed that in the course of the next two days this forum will discuss different aspects of crop governance in detail, which will help to identify constraints and opportunities, and draw interdisciplinary lessons and best practices. We firmly believe that the exchange of views and experiences from the ground is an important step to develop future regional programmes on this vital issue.

FAO attaches top priority to this consultation and looks forward to the recommendations which will help in developing future programmes and policies in order to ensure good crop governance.

Finally, I wish a grand success to this Expert Consultation and thank you all again.

Annex 4

Agricultural governance and smallholders: issues in sustainable intensification of crop production

By

Mike Robson

Introduction

This paper examines agricultural governance in the context of sustainable crop production intensification. It reviews the need to intensify production sustainably; it describes the types of programmes needed to support sustainable intensification; and it sets out some of the governance related challenges which must be addressed if sustainable intensification programmes are to succeed, offering both positive and negative examples of governance and agriculture.

Background: the need to intensify crop production sustainably

While the world is projected to need a major increase in crop production to feed a population of around 9 billion people in 2050 when compared to 2000[1], it must do so against a challenging backdrop including the decreasing availability of and competition for land and water (including from other land uses such as production of biofuels, urbanization and industrial development); poor soil fertility; access to fertiliser, improved varieties (developed using conventional and modern plant breeding tools) and quality seeds; as well as climate change. Changing dietary and nutritional demands and requirements as a result of urbanization and niche markets also present a challenge. Equally, future demand for biofuels or other non-food products from agriculture remains uncertain. Post harvest processing (and the reduction of losses) and farmers' and smallholders' ability to add value to their products are also important factors.

Previous attempts at managed intensification such as the Green Revolution of the 1960s and 1970s have been a qualified success. In some cases it is now recognized that the yield increases achieved – through increased use of fertilisers, high yielding varieties, irrigation, pesticides and intensive tillage – were made at the expense of the environment or in ways which were otherwise unsustainable. Also some smaller-scale farmers may have been unable to participate or reap the rewards of scale. The International Assessment of Agricultural Knowledge, Science and

[1] On average, doubling of crop production in developing countries; 70 percent increase for the world as a whole.

Technology for Development[2] (2009) highlighted the need for policies that value, restore and protect ecosystem services, and address the needs of the world's small-scale and family farmers. It emphasized the need for a change in paradigm to encourage increased adoption of ecologically sustainable agriculture and food systems.

Significant gains in agricultural productivity result from a large number of local decisions made by farmers including smallholders, regarding their use of ecological knowledge and inputs and/or culturally/traditionally established practices. Here, gender specificities play an important role, for example with regards to the use and dissemination of such knowledge. Without wishing to oversimplify, women tend to have better knowledge of plants in the agro-ecosystem than men, from long periods carrying out weeding and other crop management tasks. By contrast, men tend to be relatively more knowledgeable of equipment and inputs. Sustainable intensification requires both perspectives.

Changing people's underlying assumptions, attitudes or cultural patterns is always difficult. However, governments may influence uptake of productivity-enhancing practices, farmers' decisions, knowledge and skills, through appropriate policy frameworks, encouragement through participatory research and extension and the broadcast media, formal and non-formal education, as well as through financial, tax and other incentives; and through sustained investment for capital formation (physical and human) – together these constitute the enabling environment.

The November 2009 Declaration of the FAO World Summit on Food Security highlights the promotion of "... new investment to increase sustainable agricultural production and productivity, support increased production and productivity of agriculture", and implementation of "...sustainable practices... improved resource use, protection of the environment, conservation of the natural resource base and enhanced use of ecosystem services". The Declaration further commits to address the sustainable use of land and water; maintaining the health and productivity of all ecosystems; and better management of the biodiversity associated with food and agriculture.

Outcomes of recent gatherings of global leaders indicate a strong consensus on the need to increase agricultural productivity to feed a growing population while endorsing the need for sustainability in achieving such increases and for food consumption in line with diversified and balanced diets. The international community also emphasized the importance of crop production in mitigating and adapting to climate change. Lastly, in recent gatherings, leaders reiterated the need to increase investments in agriculture, and promote new investment to increase sustainable agricultural production and productivity[3].

[2] IAASTD. 2009. *Agriculture at a Crossroads. Global Report.* Edited by McIntyre, B.D., Herren, H. R., Wakhungu, J. & Watson, R. T. IAASTD.

[3] June 2008 Declaration of the High-Level Conference on World Food Security: the Challenges of Climate Change and Bioenergy (Rome, Italy); July 2008 U.N High-Level Task Force on the Global Food Security Crisis - Comprehensive Framework for Action (CFA); January 2009 High Level Meeting on Food Security for All (Madrid, Spain); May 2009 17th Session of the Commission on Sustainable Development (CSD); and July 2009 G8 Summit Joint Statement on Global Food Security (L'Aquila, Italy).

Sustainable crop production intensification (SCPI) programmes

The FAO response to these challenges is enshrined in its new Strategic Objective A, the

Sustainable Intensification of Crop Production.[4] This Strategic Objective aims to help countries achieve sustainable increases in agricultural productivity through an ecosystem approach to intensification, maximising efficient use of inputs targeted to complement natural ecosystem services such as nutrient cycling, natural predation and pollination.

FAO provides technical and policy assistance in four areas: a) increasing agricultural productivity through improved use of resources (seed, fertiliser, land, labour, etc) to achieve higher yields while promoting the sustainability of the production and farming systems; b) enhancing sustainable crop protection with a focus on pest and pesticide-related issues; c) managing biodiversity and ecosystem services, including through identification and use of mechanisms for valuing agricultural biodiversity and ecosystem services, and sound agronomic and land management practices; and d) strengthening livelihoods using the benefits of increased productivity and diversification within the value chain.

The kinds of programmes needed include efforts to improve access to inputs as well as the required knowledge to ensure inputs are used judiciously. Other SCPI programmes will cover sustainability from an economic or social perspective.

Governance in SCPI

The diverse definitions put forward for the term *governance* generally refer to the exercise of power and decision-making, including the management of a country's social and economic resources for development.[5]

Global

At the global level, the governance framework for agriculture consists of a limited number of legally-binding agreements, supported by a number of voluntary codes or sets of guidelines. Some of the main legally-binding international treaties and conventions affecting the governance of agriculture are described below:

- The International Commission on Phytosanitary Measures (CPM) sets international standards for phytosanitary measures to be adopted by governments to govern the trade in plants and plant products, and the management of associated phytosanitary risks.
- The CBD Cartagena Protocol covers informed consent of countries regarding introduction of living modified organisms into their jurisdiction.

[4] FAO Medium Term Plan 2010-2013 (C2009/15).
[5] World Development Report (World Bank 2008); ADB; UNDP

- The Chemicals Agreements (Rotterdam, Stockholm, Basle) cover the reduction of environmental risk due to the use of persistent pollutants, some of which are still used in agriculture.
- The International Treaty on Plant Genetic Resources for Food and Agriculture provides the framework for the exchange of plant genetic resources to support its conservation and sustainable use.

While many of these treaties and agreements have entered into force in the past decade, the capacity of nearly all developing countries to comply with, and potentially benefit from, them is very limited. Regulations are not enforced, inspection is not carried out systematically, analytical testing and diagnostic services are under-resourced, while stakeholder understanding of the underlying issues, and of how, practically, to comply with the terms of the agreements is lacking.

Many other general issues of principle affecting agriculture directly or indirectly are not governed by an international legal instrument but based on guidelines or codes of conduct. The scope of these may be broad such as the guidelines on the Right to Food or Land tenure or highly specific such as the code of conduct for the distribution and use of pesticides.

Some global agricultural issues are not yet being addressed directly on a global scale and/or are not easily capable to resolution. The most prominent of these is the attempt to coordinate international action on climate change adaptation and mitigation. But other significant challenges in governance include volatility in commodity markets, investment in agriculture, environmental impact of agriculture beyond national/regional scale. Such issues are increasingly debated.

National

Whatever happens globally, the real political power to manage resource allocation equitably - and, for instance, support sustainable intensification approaches in the interests of smallholders and national food security - resides with national governments. As an example, the CPM sets international standards but these only have real force when adopted as measures in national legislation and regulations.

At the national level, agricultural governance can be summarised in terms of a number of different concrete dimensions[6]:

- Efficiency and effectiveness in service provision – services in this context include access to key inputs such as seed, fertiliser, land, water, ecosystem biodiversity and knowhow; processing and post harvest infrastructure and certification services among others.
- Quality of regulation – regulation for agriculture could be the registration of varieties, the policing of quality standards for inputs (seed, fertiliser or pesticides), as well as product certification.

[6] World Bank, World Development Report 2008 on Agricultural Governance (notably Chapter 11)

- Control of corruption - associated with agricultural activity.
- Enforcement of rights - including those to food, health, knowledge.

These four dimensions determine whether farmers have access to the inputs and services needed to intensify production. The dimensions cover a very broad range of topics. Some, such as the control of corruption or the local enforcement of rights extend beyond agriculture, and the role of international organisations such as FAO. However, in some specific cases such as the efficiency and effectiveness of service provision and the quality of regulation, FAO – and national agriculture ministries – have direct relevant experience.

On the other hand, when designing sustainable crop production intensification programmes, all these dimensions need to be factored into programme elements. If not, the programmes will fail. Even some tricky political issues associated with corruption and rights can be tackled indirectly through programmes which build rural empowerment or encourage transparency while mobilising farmers to learn about new approaches and improve production practices.

It should also be noted that ineffective regulation, waste in public expenditure, inequitable access to resources and corruption are global problems. They apply in both developed **and** developing countries. In developing countries, in a rural/agricultural context, these problems may disproportionately affect some of the most resource-poor and vulnerable social groups.

Agricultural intensification can potentially affect millions of smallholders in developing countries. While much attention is given by policy-makers to balancing the competing demands on natural resources, the reality is that a balanced portfolio of ecosystem scale, social and economic policies will amount to very little in the absence of effective systems for service delivery, regulation, control of corruption and underpinning rights. In practical terms, intensification will struggle to escape pilot scale without governance.

The result is that smallholder farmers do not reliably get the inputs and services which they need. The following consequences may ensue:

- Inappropriate registration of new products such as crop varieties and pesticides in return for personal financial gain on the part of registrars may lead to marketing of unsafe or environmentally damaging products.
- Rent-seeking associated with official inspection will undermine the quality of inspection resulting in unsafe products being marketed, domestic consumers suffering and loss of market access for export products.
- Payment extortion associated with transport of inputs and produce at informal roadblocks; this is not limited to agriculture, but is a significant factor in the sector given the potential volume of produce being moved.
- Land use policies may be undermined for individual gain, either by sanctioning land use for inappropriate agricultural purposes (for instance, changing to land use with environmental damage) or for converting to non-agricultural use (likely in peri-urban areas where land values are high).

- Adulteration of inputs in the absence of effective regulation, resulting in farmers getting substandard or ineffective material; in the case of pesticides, use of partially inactive material will encourage development of resistance in pests. Ineffective material may encourage overuse by farmers. If they then encounter unadulterated material, poisoning or environmental damage may result.
- Distributors of inputs failing to follow guidelines and codes of conduct such as sale of pesticides with local language labels and availability of personal protective equipment, pose risks to smallholder farmers' health and well-being.
- Pest and/or disease control measures which discriminate against certain categories of producer (an example is closing of local live bird markets to control highly pathogenic avian influenza which tends to favour larger producers over smallholders).
- Lack of market transparency where intermediaries and/or wholesalers take advantage of farmers' ignorance of prevailing prices to force them to accept lower prices.
- Providing credit with exorbitant arrangement fees, interest rates and other conditions which are in excess of the prevailing norm.

All this can undermine or complicate the practical implementation of programmes for sustainable intensification. Rather than simply highlight the negative, it might be helpful to accentuate the positive with examples of good governance which can be models for governments to improve governance as it affects smallholder farmers.

As understanding of pesticide-induced outbreaks of pests, particularly in rice, became more widespread, a number of governments in South and Southeast Asia eliminated subsidies for pesticides during the 1980s and 1990s, while some banned particular categories of chemicals such as organophosphates. The reduction of pesticide-induced pest outbreaks is an important contributory factor in rising productivity which was seen over the same period. This is an example of the positive impact of well-implemented regulatory measures in agriculture.

Locally owned agricultural governance processes, through community institutions and local authorities, furnish many positive examples. Local irrigation management institutions have evolved in many countries to address the problem of unequal access to water resources with some farmers, by virtue of physical location, getting more, and to ensure physical infrastructure maintenance. Allocation models of central or government management aiming to promote fairness, have tended to fail to take full account of local needs or adequate maintenance of facilities.

In several cases, local government involvement has been key to community control of plant disease. An example is from Uganda where farmers in a major banana production area needed to combat the severe Banana Bacterial Wilt disease. The widely-used approach to tackling this is removal of the 'male' flower as well as uprooting and destroying any infected plants – the 'male' flower attracts specific insects which act as vectors for the spread of the bacteria. Although the technology is widely known, farmer compliance in implementing the measure was low. Because banana is central to the economic well-being of the community, a single farmer failing to take the required measure, puts his or her neighbours at serious risk. Neither agricultural research

scientists nor the newly reformed extension service (NADS) made much headway at first. The solution was for the local community to enact local by-laws on surveillance and monitoring for banana disease, with weekly inspections and imposition of fines for irresponsible behaviour. Farmers Field Schools also played a part in this mobilisation.

Some countries, notably India, have been considerable changes in national seed policies in recent years. From being a predominantly public activity, seed supply is now through mixed arrangements with both public and private sector actors. In such cases, the public sector tends to supply seed of staple crops while the private sector provides seeds to maize or vegetable farmers who have the means to pay for the seed. Similar models of seed supply are growing wherever there is scope for commercial agriculture.

Conclusion

This paper identifies a number of challenges for agricultural governance using a framework put forward by the World Bank. Sustainable intensification of production requires good governance for schemes to have significant impact. The key recipes for good governance are effective and well-managed public-private linkages, local ownership of service delivery and resource allocation decisions, stakeholder inclusion in regulation, and transparency as a pre-requisite to combating corruption.

Annex 5

Promote improved awareness and understanding the problems of agricultural governance that directly affect small farmers' well-being and strategy to improve governance in crop sector in line with FAO's Strategic Objective A

By

Subash Dasgupta

Introduction

Governance in a broad sense refers to exercising power and decision-making for a group of people by a group granted this authority. The United Nations Development Programme (UNDP) defines governance as the exercise of political, economic, and administrative authority in the management of a country's affairs. The Asian Development Bank (ADB) defines governance as the manner in which power is exercised in the management of a country's economic and social resources for development. Traditionally, the authority to exercise power is formally vested in the national government. Many national governments in exercising this power draw on the support and collaboration of non-government actors such as private sector, civil society, professional organizations, trade associations and NGOs. The structure of governance is reflected in the rules and institutions that create the framework for conduct of both public and private business and regulatory frameworks. The UN Economic and Social Commission for Asia and the Pacific (UNESCAP) defines good governance as instances where authority and its institutions are accountable, effective and efficient, participatory, transparent, responsive, consensus-oriented and equitable.

World Leaders at the 2005 World Summit concluded that good governance is integral to economic growth, eradication of poverty and hunger, and sustainable development. The wisdom reflected in the World Summit declaration is supported by an empirical study that used governance measures as defined in the World Governance Indicators provided by the World Bank. Of the six measures, three – voice and accountability, political stability, and the rule of law – were significantly correlated with economic growth (Huynh, *et al*., 2009).

Agricultural governance is concerned with the guidance and management of the development process of a country's agricultural sector through the functioning of its institutions, implementation of policies, adherence to acts and regulations, and discharge of mandated responsibilities by all involved stakeholders. An empirical study using World Bank's aggregate governance indicators and a cross-country panel sample found that a country with better governance can produce more agricultural outputs, given the same amounts of agricultural capital stock and land. Better governance can indirectly improve agricultural productivity by driving agricultural capital accumulation (Lio and Liu, 2008).

This paper first discusses the challenges of agricultural governance in developing countries of the Asia-Pacific region that addresses the need for improving the productivity of smallholder farming. It next discusses the importance of new approaches to agricultural governance in implementing the strategy of sustainable crop production intensification that FAO envisions for achieving sustainable increases in agricultural productivity (FAO Committee on Agriculture 2010). Finally, it focuses on strategic options to improve the agriculture governance system.

Agricultural governance – challenges

Governance systems for agriculture and food in developing countries of the Asia-Pacific region face significant challenges. Many struggle for a decisive, coherent response to the slowdown in agricultural productivity growth; spiralling food prices; mounting pressure on the natural resource base of water, soil, land and biological diversity; increase in the frequency of extreme weather events impacting agriculture and rural livelihoods on unprecedented scales; the need to regulate multinational companies with proprietary knowledge-intensive products in the agrifood sector; and to participate in global systems of governance for food and agriculture to harness the maximum benefit for their agricultural systems. An inadequate response to these challenges constitutes a crisis of governance.

This comes at a time when there is a need to manage a transition of their agricultural systems from the paradigms of the Green Revolution to one that takes a holistic view of agricultural growth and its sustainability, equity, and efficiency with a focus on improving the productivity of smallholder farming. The urgency of this transformation is driven by the need for a dramatic increase in food production by 2050 to feed a population in the region projected to grow to 5.1 billion at 1.4 percent annually (UN Population Division 2007), surpassing growth rate of productivity key food cereals estimated at 0.8 percent for rice and 0.2 percent for wheat during 1997-2007 (FAO Asia Pacific Regional Conference, 2010). This increase must come from a shrinking resource base of water, land, soil and energy which faces competition from non-agricultural uses such as urbanization, industrial development and production of bio-energy crops. The onus, therefore, will be on boosting crop productivity as evident from an FAO estimate that global food production must increase through yield increase by at least 43 percent to meet food demand by 2030 assuming all other factors remain unchanged.

These challenges of agricultural transformation set the stage for new systems of governance. In most countries, the state as embodied by the government, is the core of governance systems providing institutions and resources for their functioning; a justice and legal framework of courts, acts, regulations, codes and standards; and creating an enabling environment to bring under the rubric of governance, various private sector and nongovernment organizations that provide public goods associated with governance. The extent of state activity and involvement in the governance system varies depending on a country's political system, its constitution, and its level of socio-economic development.

Agricultural governance in most countries constitutes part of the public sector administrative service and is typically organized in a ministry or department responsible for the food and agricultural production sector. Often, different ministries or departments are responsible for

subsectors other than crops such as fisheries forestry and livestock. Agricultural governance is also executed through allied ministries or departments such as irrigation and water resources, food, local government and rural development, microfinance and rural enterprise. The ministries, may have parastatal organizations under them, often with their own charters and autonomous structure, and staffed by professionals conducting agricultural research and providing farmers with extension support and input provision services.

Governance systems for food and agriculture in developing countries suffer many of the challenges affecting overall governance systems in these countries. These include low institutional capacity, lack of political and economic stability, weak democratization, poor accountability and transparency, corruption, limited voice to the poor, women, and minorities particularly in rural areas, lack of participation and access to information, and inadequacy of the rule of law.

The increasing globalization of the agrifood system poses governance challenge at the national level. There is little institutional capacity, for instance, to formulate appropriate policies and regulatory guidelines for agribusiness companies, trans-boundary movement and local testing of exotic genetic resources and biotechnology products; to frame appropriate national policy responses or participate in the ongoing processes associated with international agreements like the World Trade Organization (WTO)-linked Sanitary and Phytosanitary Standards (SPS), Agreement on Technical Barriers to Trade, Agreement on Trade-Related Aspects of Intellectual Property of Rights (TRIPS) and the Convention on Biological Diversity (CBD).

A main challenge to the agricultural governance systems in many Asia-Pacific countries is to refocus on smallholder farmers and increasing the smallholder productivity as the concept of sustainability occupies the centre stage of the evolving paradigm of agricultural development.

Sustainable crop production intensification – key role of agricultural governance

In order to help member countries mainstream the concept of sustainability in management of agricultural production in their countries, FAO put forward the concept of ecosystem approach in the 21st session of the Committee on Agriculture (COAG 2009). This is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. This approach was incorporated as Strategic Objective A in the new FAO strategic framework adopted by the FAO conference in 2009.

FAO Strategic Objective A aims to promote sustainable intensification of crop production with focus in four areas: a) increasing agricultural productivity through improved use of resources, for e.g. plant genetic resources and seeds, to achieve higher yields while promoting sustainability of production and farming systems; b) enhancing sustainable crop protection with a focus on pest and pesticide-related issues; c) managing biodiversity and ecosystem services, including through identification and use of mechanisms for valuing agricultural biodiversity and ecosystem services, and sound agronomic and land management practices; d) strengthening livelihoods through increased productivity and diversification within the value chain. The concept of ecosystem approach and the underlying FAO strategy for sustainable crop production

intensification and the programme of activities until 2025 were further elaborated in an FAO technical paper titled "Capturing Efficiency through Ecosystem Services and Management" (COAG/2010/3).

New governance approaches are central to shifting the paradigm of agricultural management from being essentially production-focused to the principles of sustainable crop production intensification. The governance capacity of agricultural bureaucracies during the Green Revolution era was built on the need of directing government's efforts to providing services to farmers including production inputs, credit, marketing and improving rural infrastructure. Often, the installed capacity was mainly temporary in nature as part of donor-supported projects, reflecting donors' perceptions of needs rather than a country-driven process of the assessment of governance requirements.

The overall bureaucratic system was largely opaque with no mechanisms for articulation of citizen interests and needs, and the decision making process was often dictated by powerful, vested interest groups. It worked strictly in a top-down fashion with a strong focus on narrow departmental interests. However, in many countries of the Asia-Pacific region, the system did serve its purpose fairly well, as evident from the rapid increase in foodgrain production in these countries in the early stages of the Green Revolution.

Over time, the influence of the public sector agricultural administration on setting the rules of game exposed the weaknesses of governance systems including a lack of accountability, neglect of the needs of smallholder farmers, lack of transparency, unpredictability, inefficiency, rent-seeking and corruption.

In order to curtail the role of the state and to introduce market-oriented reforms, structural adjustment programmes were implemented in the 1980s with downsizing of the public sector and emergence of the private sector as a powerful player, particularly in agribusiness. Many countries also attempted public sector administrative reforms to facilitate transition to a market-oriented paradigm of economic development. This process is still at work in many developing nations because reducing the role of the state was not immediately matched by the emergence of new actors to deliver the functions of agricultural administration needed to support market solutions.

Governance has direct relevance to implementing the new paradigm of sustainable crop production intensification.

Plant breeding and seed systems

Further increases in crop productivity will depend in part on breeding and expanding the use of modern varieties requiring less water and fertilizer, suitable for cultivation across diverse agro-ecosystems including rainfed areas, salt-affected soils, low lands prone to flash flooding and prolonged submergence, and areas prone to seasonal droughts. Typically, these are also areas with a large proportion of resource-poor smallholder farmers who will demand crop varieties suited to their cropping patterns and capable of increasing their income. Breeding such varieties

will require extensive use of plant genetic resources including land races and wild relatives, modern precision breeding tools and new approaches for location-specific breeding, including farmer-participatory breeding. Seed production systems will need a major overhaul to allow rapid multiplication of certified seeds of new varieties and make them available much faster to farmers.

The effective administration of such complex crop improvement programmes must focus on building ability to work with a wide range of stakeholders including private sector, NGOs, farmers' and women's organizations, and using the inputs of the consultative procedures for programme planning, priority setting, performance review and budget allocation, to ensure that the new varieties are demand-driven and developed through a variety of decentralized and participatory approaches. To fast-track breeding work for efficiency, national systems need enhanced capacity to share with CGIAR (Consultative Group on International Agricultural Research) centres, the burden of conducting upstream breeding research designed for country specific contexts and handle efficiently, the products of downstream breeding research.

Governance of the seed sector should focus on designing a regulatory framework to facilitate the emergence of a vibrant private sector seed enterprise and address relevant technical and management issues to protect farmers' interests, in particular, their access to quality seeds at an affordable price, authenticity of hybrid seeds sold at premium price and their unhindered ability to use their own saved seeds. The regulatory framework should be based on scientific principles and research-based evidence extending its reach over the entire seed system including open pollinated, composites, hybrids, and biotech seeds. The ultimate goal should be to create a transparent, competitive, and level playing field for all seed business stakeholders. The system should eliminate bottlenecks and unlock potentials, including simplification and acceleration of the variety release and seed multiplication processes with the involvement of an extensive and decentralized network of trained seed growers and private sector agribusiness companies.

Management of ecosystem services

Practices harnessing ecosystem services and contributing to the sustainability of production systems such as Integrated Pest Management (IPM), Integrated Plant Nutrient Management (IPNM), Conservation Agriculture, (CA), agricultural water management, crop-livestock systems and agroforestry systems are interdisciplinary in nature, requiring a cross-sectoral approach and coordination across different ministries. Often research and extension (R&E) activities in these areas are conducted through donor-supported projects piloting new concepts and temporary management structures are put in place to pool resources and achieve better coordination in implementation. Up-scaling of these approaches requires their integration into the core research agenda and transforming ad hoc mechanisms of project management into durable institutional structures. These can be inter-ministerial coordination committees embedded in a high-level hierarchy of public agricultural administration, field-level technical committees including local-level extension and research workers, farmers, producers' organizations, women's organizations, NGOs, civil society organizations and agribusiness. Grassroots involvement of a wide range of stakeholders enhances participation, injects a sharp focus on location-specific problems and

fosters ownership of results by target beneficiaries. All these processes eventually contribute to improving voice and accountability, the two key components of good governance.

Managing agricultural biodiversity within the realm of sustainability of intensive production systems will require shifting the focus from conservation as a public good to seeking uses that benefit livelihoods and crop improvement programmes that boost resilience of farming systems in the face of emerging threats. This will require a decentralized approach for an inventory of biodiversity resources, a farmer-participatory evaluation of their value as source of income generation or potential use to address important production constraints in their farming systems. Such an approach backed by greater efforts at *on-farm* biodiversity conservation with the participation of primary stakeholders will create conditions for biodiversity use in the promotion of sustainable crop production intensification.

Managing ecosystem services will require a greater understanding of biological processes that support living organisms, including plants, animals, and microorganisms in a particular ecological setting where they closely interact and have mutually beneficial spin-off effects. Nature's capacity to maintain this life support system and restore the balance after disruptions is greatly affected by human interference in an ecosystem by application of external inputs in a way that incapacitates an ecosystem from providing beneficial services. This calls for a fundamental reassessment of fertilizer, pesticide and irrigation technologies of the Green Revolution era and shifting the focus to developing crop, soil and land management technologies that minimize the human footprint on managed ecosystems and make greater use of ecosystem services. This eventually translates into resource use efficiency and benefits for smallholder farmers.

Managing biodiversity and ecosystem services will require a decentralized and participatory approach to engage multiple stakeholders including poor and smallholder farmers who depend most on nature's services. This will test the governance capacity to forge greater coordination across sectoral ministries and create local-level institutional structure to facilitate consultative and deliberative processes.

Generation and transfer of knowledge

The above approaches are knowledge intensive. Technology transfer using these approaches needs more investment in farmers' training to enable them to realize the potential benefits of the technologies. A sustained focus on human capital building centred on smallholder farmers will be central to the rapid adoption of new production technologies.

To place the concept and approaches for sustainable crop production intensification in the larger context of national agricultural development goals and strategies, there will be need to develop a long-term national seed policy, a national crop protection policy or a national IPM programme, a national IPNM and irrigation water use policy, a biodiversity conservation and use policy as well as a national biosafety and environmental release policy. An elaborate policy framework backed by relevant laws, rules and regulations to protect and enhance biological processes and ecological functions supporting agriculture, will strengthen governance capacity.

Sustainable crop production intensification will require new management skills and knowledge in the public agricultural administrative system. Being part of the national civil bureaucracy, this system often has personnel in key decision-making positions who lack specific knowledge and skills. Such knowledge and skill are important for managing policy analysis, formulation and change processes, and effectively handling consultative and deliberative mechanisms involving a broad range of national and international stakeholders in a labyrinth of global and regional treaties, conventions and codes that regulate different aspects of sustainable crop production intensification.

Strategies to improve governance systems for agriculture and food

Discussions on the challenges of agricultural governance and its key role in shifting the paradigm of crop production intensification to sustainability of production systems through harnessing and strengthening ecosystem services, set the stage for evolving strategies to improve governance in this sector. Ideally, improvements in overall governance, also called good governance, reflected in accountability, transparency, participation, responsiveness, rule of law and control of corruption, create favourable conditions for implementing specific sector-wide governance reforms and the durability of the outcome of those reforms.

Sustainable crop production intensification approaches and strategies, being multidisciplinary and cross-sectoral, need greater coordination across ministries and departments responsible for agriculture and natural resource management. Some countries have one agriculture ministry looking after all subsectors that makes coordination relatively easy. In others, the agriculture ministry is responsible for crop agriculture and other subsectors are assigned to independent ministries, making coordination much harder and challenging. A suitable approach is to have a high-level inter-ministerial mechanism such as a steering committee s with top decision-makers of concerned ministries under the managerial supervision of a nodal ministry, usually the crop agriculture ministry. This facilitates the forging of coordination at policy formulation level, exercising overall administrative oversight and budget allocation. A task force, headed by top public agriculture research and extension system officials, and embedded in a nodal organization of this system, can be a suitable structure for coordination at the programme planning, monitoring and review level. To make them accountable to stakeholders including private sector, producer organizations, civil society organizations and donors, the mandate and terms of reference of these committees, the milestones to be achieved in programme implementation and outputs of the review processes should be placed in the public domain.

Downsizing the public sector’s role needs capacity building of public services to make them efficient in their new roles as coordinator, facilitator and regulator. Public agricultural administration officials need new managerial skills as facilitators to engage a broad range of stakeholders in a variety of public-private dialogues, collaborations and partnerships in agricultural policy-making, programme planning and implementation.

Effective regulatory control is important for an enabling environment for the private sector to make investments and assume greater role in agricultural service provision. In sustainable crop production intensification programme approaches, regulation is key to efficiency in resource use

by establishing grades and standards, authenticity and quality benchmarks and consumer protection mechanisms against fraud, adulteration and speculation in input/commodities market prices through hoarding and syndicate building. The regulatory reach of the crop agriculture sector must also extend into the jurisdictions of other ministries responsible for managing forests, wetlands, other natural ecosystems and enforcement of common property rights, to ensure development projects do not affect the capacity of natural ecosystems to provide services underpinning sustainability of intensive crop production.

Regulation also has to address updating existing codes, laws and protocols and creating new ones in order to meet country obligations to a plethora of international treaties, codes and conventions, thus improving national participation in the global governance systems for food and agriculture. Where opportunities exist, private sector and industry organizations should be encouraged to develop their own standards for self-regulation.

An appropriate balance must be struck in defining a regulatory regime to avoid both over- and under-regulation. Over-regulation entrenches an indifferent and unresponsive bureaucratic mindset which leads to predatory, rent-seeking and corrupt behaviour. On the other hand, under-regulation contributes to inefficiency and market failure harming the well-being of farmers. The enforcement of regulation will require new physical and technical capacities in the regulatory wings of the existing public agricultural administrative system or new regulatory agencies will have to be created. Regulation also offers a strategic governance tool to ensure efficiency and equity in the provision of services, focused on eliminating biases against smallholder farmers and enhancing their access to inputs, credit, marketing and common property resources.

Agricultural governance should focus on creating new and strengthening existing local-level institutional structures to facilitate participation of a broad range of stakeholders including civil society organizations, NGOs, agribusinesses, smallholder farmers and women. Local organizational units of the public sector agricultural extension and research institutions can be focal points to develop such structures in the form of coordination committees. Existing committees like this can be strengthened by including new stakeholders and adding new perspectives in their work. The Farmer Field School (FFS) concept can be applied as a tool for participatory research and technology development. The voice of smallholder farmers and their influence on agricultural decision-making can be increased through community-based organizations such as farmers associations or cooperatives. These associations are better placed to ensure that new production technologies address concerns of smallholder farmers and agricultural service providers focus on smallholders' needs.

The institutional structures that facilitate participatory processes also favour decentralization of providing farmers with solutions and services that advance the approaches of sustainable crop production intensification. Decentralization embedded in participatory mechanisms will be a key governance tool to ensuring that smallholder farming perspectives inform interventions in programme approaches of sustainable crop production intensification.

Enhancing agricultural governance requires strengthening policy processes to define country priorities and strategies and develop concepts, approaches and options in the broad framework of

global mechanisms that advance the paradigm of crop production intensification with a nuanced approach for harnessing ecological functions supporting agriculture. New capacities are needed to help decision-makers understand how this new approach works and how to align national agricultural development goals, plans and programmes with the principles of sustainable crop production intensification. New capacities and analytical skills are also needed to support policy formulation in the public sector agricultural research and extension system, particularly in the development of strategic and action plans, methodologies for planning and monitoring and evaluating initiatives in sustainable crop production.

To provide a strong foundation for policy processes, evaluation results should be internalized in the process of institutional learning and change, and research-based evidence should be used to support policy changes. In many countries, there is also a great opportunity to involve the private sector, particularly civil society organizations and think-tanks in agricultural policy formulation and reform. These organizations play an influential role in some countries by holding governments accountable through systematic review and evaluation of specific government policies, plans and programmes.

Governance reform should also focus on controlling corruption in the public agricultural service in the framework of overall public sector administrative reform. This has profound ramification for the implementation of approaches for sustainable crop production intensification, involving considerable investment in developing a knowledge base, farmers' training, demonstration of specific interventions and implementation of other innovative approaches that were not tested before. Besides corruption control measures such as better job description, enhancing salaries and enforcement of anti-corruption laws, local participatory institutions can be engaged in periodic review and auditing of expenditure of public funds that are implementing local project activities.

Facilitating access to information enhances citizens' ability to hold government institutions accountable. The greater use of information and communication technologies (ICT) including internet in governance, also known as e-governance, can empower farmers, particularly smallholders, by providing them access to information they can use to further their interests in programme activities. In many Asian developing countries, the proliferation of mobile phone-based low-cost connectivity covering even remote rural areas, has tremendous potential for innovative and cost-effective approaches for delivery of a wide range of services to smallholders.

Top-level political oversight of agricultural administration institutions will make them more accountable while implementing of sustainable crop production intensification programmes. Parliamentary committees in charge of agriculture, food, and rural development can play key role in agricultural policy-making, budgeting, and building broad-based political support for new approaches to intensification of agricultural production. Organizations representing smallholder and marginal farmers can convey their needs to national decision-makers and protect their interests through these committees. Strengthening the technical capacity of these committees to monitor and review the performance of the agriculture ministry and its subordinate organizations will facilitate effective governance of environment-friendly, resource-conserving and people-centred approaches for crop production intensification.

In essence, strategies for improved governance are based on achieving better coordination between ministries, building technical capacity of regulators to regulate and participate in international processes, creating a supporting environment for private sector investment and strengthening local measures for improved accountability.

Conclusion

Improving governance systems for food and agriculture is a key element in the strategy for sustainable crop production intensification. Major governance challenges in the agriculture sector in most countries of the Asia-Pacific region are low institutional capacity of the public agricultural service; inadequate framework of laws, rules and regulations to engage a broad range of stakeholders in agricultural policy analysis and implementation processes, and effectively participate in the global governance system for food and agriculture. Participatory mechanisms are rudimentary and ineffective, limiting the voice of primary stakeholders, particularly women, poor and smallholders and their capability to hold public agricultural service providers accountable for their performance. Limited public access to accurate and timely information limits transparency of service delivery by public sector institutions. Low institutional capacities, inadequate legal and regulatory frameworks and poor rule of law are breeding grounds for corruption that not only affects the wellbeing of poor and smallholder farmers, but also discourages private investment and creates disincentives for public-private partnerships.

Specific governance requirements for sustainable crop production intensification strategy are improved coordination across different ministries; strengthening institutional capacity for efficient performance in new roles of facilitator and coordinator, agricultural policy formulation and policy reform; strengthening participation and deliberation; effective decentralization of technology development and assessment and input provision services embedded in a web of participatory and consultative mechanisms; improved access to information; and control of corruption.

Strategies to improve governance in the light of these requirements include creating high-level inter-ministerial mechanisms for coordination both at the level of policy formulation, budgeting and programme planning, and implementation, monitoring and review. An enabling regulatory regime with adequate resources for enforcement will support market mechanisms in working towards the goal of transparency, efficiency and equity in the provision of inputs and delivery of services to farmers. Creating new and strengthening local level institutions in the form of coordination committees, farmer field schools or any suitable country-specific structure will provide an organizational basis for participatory processes and deliberative mechanisms

Internal administrative reform in the line ministries and subordinate parastatal organizations, delegating adequate administrative, decision-making and fiscal authority to local units of the public agricultural service will lead to effective decentralization in the process of providing farmers with inputs and services for sustainable crop production intensification. Building new managerial and analytical skills at the decision-making level of the agricultural bureaucracy and

effective collaboration with think-tanks in the private sector will provide a sound framework for analysis, formulation and policy reform in support of sustainable crop production intensification. The control of corruption in the public agricultural services, an ongoing process in the framework of public sector administrative reform, should be supported by involving local-level participatory mechanisms in the periodic review and auditing of the expenditure of public funds. The overall performance and accountability of the public agricultural administration system should be brought under political oversight by strengthening the technical capacity of parliamentary committees in charge of the ministries of agriculture, food, and rural development.

Recommendations

- Member countries should consider improving governance in the food and agriculture sector as a key element in implementing the strategy of sustainable crop production intensification in the context of their political systems, social norms and unique experiences of administrative reform in public sector services.

- Member countries should consider addressing specific governance challenges in sustainable crop production intensification with a focus on smallholder farmers as key players in accelerating the transition to this new paradigm of intensification of agricultural production.

- Member countries should consider boosting institutional capacity of public agricultural services to upgrade their managerial and technical competence to handle multipronged initiatives for change efficiently, engaging a broad range of national and international stakeholders.

- Member countries should consider attaching utmost importance to national capacity building for policy analysis, formulation and change as a key governance tool to manage a knowledge-intensive process of agricultural transformation efficiently and participate effectively in global governance systems for food and agriculture.

- Member countries should consider modernizing the regulatory framework of laws, rules, codes and regulations to a create incentives for private sector investment and assumption of a greater role in providing farmers with quality inputs and services.

- Member countries should encourage investment in developing local-level institutional structures including community-based organizations and farmers' associations to facilitate grassroots level participatory processes that give primary stakeholders greater influence over decision-making and programme implementation by public sector agricultural services.

- Member countries should consider delegating adequate authority in the framework of ongoing administrative reform to local units of the public agricultural service for effective decentralization of participatory technology development and assessment, and service provision to farmers.

- Member countries should consider greater use of ICT to empower farmers with access to information within the broad framework of evolving digital governance for transparency, accountability and efficiency in providing services to citizens.

- Member countries should control corruption in the public agricultural services for efficient use of public resources in implementing programmes and approaches of sustainable crop production intensification using a process that promotes greater interaction among farmers, research and extension workers and input providers.

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