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FAO REGIONAL PRIORITY FRAMEWORK FOR ASIA AND THE PACIFIC (2010-2019): TOWARDS FOOD SECURITY IN THE REGION

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Abbreviations and acronyms

AEGFS	Asian Expert Group on Food Safety
AFSI	L'Aquila Food Security Initiative
AFSN	ASEAN Food Safety Network
APFIC	Asia-Pacific Fishery Commission
APRC	Asia Pacific Regional Conference
ASEAN	Association of South East Asian Nations
ASEAN-GAP	ASEAN Good Agriculture Practice
ATFC	ASEAN Task Force on Codex
CCRF	Code of Conduct for Responsible Fisheries
DRR	Disaster risk reduction
FAOR	FAO Representative
FBDGs	Food-based dietary guidelines
FBS	Food balance sheet
GHG	Greenhouse gas
GIS	Geographic information system
GMO	Genetically modified organism
HACCP	Hazard Analysis and Critical Control Point
ICSO	International Civil Society Organization
ICT	Information and communication technology
IDP	Internally displaced person
IEE	Independent External Evaluation (of FAO)
INGO	International Non-Governmental Organization
IPA	Immediate Plan of Action
IPM	Integrated pest management
IUU	Illegal, unreported and unregulated
LRRD	Linking relief and rehabilitation to development
MDGs	Millennium Development Goals
MDTs	Multidisciplinary teams
MTP	Medium-term plan
NMTPF	National Medium-Term Priority Framework
PIF	Pacific Island Forum
PRSP	Poverty Reduction Strategy Paper
PWB	Programme of Work and Budget
RAP	Regional Office for Asia and the Pacific
REIO	Regional economic integration organization
RFB	Regional fishery bodies
ROG	Regional Office Group
RPF	Regional Priority Framework for Asia and the Pacific
SAARC	South Asian Association for Regional Cooperation
SOFA	State of Food and Agriculture
SMEs	Small and medium-scale enterprises
SPS	Sanitary and phytosanitary
SROs	Subregional organizations
TAD	Transboundary animal diseases
TCP	Technical cooperation programme
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNDAF	United Nations Development Assistance Framework
WHO	World Health Organization
WFS	World Food Summit

Foreword

The Report of the Independent External Evaluation of FAO (IEE), issued in 2007, called for a new and clear role of FAO Regional Offices with greater delegation of authority and decision-making roles. It recommended that all professional staff in Regional Offices should report to the Regional Representative directly and that Regional Officers should assume first-line responsibility and accountability for the development of strategies and programmes across the region (recommendation 6.20). It further recommended that the Regional Offices be responsible for preparing the report for the Regional Conference with the aim of furnishing genuine strategic direction to the Organization by providing guidance on the major food and agricultural issues and concerns in the region, and identifying regional programmes and priorities. Those that fall within the five or six priority themes subsequently agreed by the Regional Conference would form the basis for finalizing a regional strategy in each region. The IEE report, including the recommendations, was endorsed by the 35th (Special) Session of the FAO Conference in November 2008 and was translated into action through the Immediate Plan of Action for FAO Renewal (IPA).

The IEE further called for a structured and consultative process and development of regional areas of priority actions, and placed the Regional Conference as a venue for consultation with member countries.

Accordingly, the FAO Regional Office for Asia and the Pacific (RAP), after intensive internal and external consultations, formulated a concept paper *Regional Priority Framework (RPF) for Asia and the Pacific* that identified five priority themes, and submitted it to the 29th FAO Regional Conference held in March 2009 in Bangkok, Thailand. The 29th APRC positively reviewed the Regional Priority Framework concept paper and provided comments and suggestions for improvement. It further requested FAO to “submit a fully formulated Regional Priority Framework for its review and consideration at the next Regional Conference and report on the restructuring and strengthening of the Regional Office to address these priorities”. Accordingly, RAP reformulated the Regional Priority Framework (RPF) after an extensive consultation process with various stakeholders.

This is the second RPF prepared by RAP. The first (2004) was formulated on the basis of FAO’s Global Strategic Framework and Strategic Objectives (which ended in 2009), in order to respond to the specific needs of the region. Indeed, RAP is proud of its role as a prime mover and catalyst in formulating the RPF, long before the task became FAO’s corporate exercise and introduced to other regions. The initiative originated from the recommendations of the Independent Evaluation of FAO’s Decentralization which took place in 2003, and contributed indirectly to the IEE’s formulation of its recommendations taking into consideration RAP’s experience. In this connection, I wish to convey my sincere appreciation to Mr He Changchui, Deputy Director-General (Operations) for his initiative and pioneering work.

To deal more effectively with priority and emerging issues, which have increasingly become more complex and require a multi-disciplinary and multi-sectoral approach, the present RPF shifts from working through narrow disciplines to focus instead on broad priority areas. This allows for better alignment of regional priorities with FAO’s Global Strategic Framework 2010-19, in conformity with the Organization’s new integrated results-based approach. Indeed, as can be seen in Annex 2, almost all regional priority areas are well aligned with FAO’s Global Strategic Objectives and corresponding Organizational Results (ORs).

The process of formulating the strategy was participatory. First, a set of priorities was identified via internal consultations involving all RAP professional staff through brainstorming sessions. Discussions then followed with FAO colleagues in headquarters and decentralized offices. In 2009, preliminary ideas were presented to senior representatives of member countries in the region at the 29th APRC, followed by their presentation and discussion at the ASEAN-FAO Regional Conference on Food Security, the South Asia Consultations with SAARC member

countries in Bhutan and the Eighth Meeting of the Southwest Pacific Ministers for Agriculture covering the Pacific Island countries. A consultation and verification workshop was also held with representatives of donors, development partners, UN organizations, the private sector and CSOs/NGOs in Bangkok.

Second, a mapping exercise was conducted to identify how regional priorities could best be aligned in implementing FAO's Global Strategic Objectives and Organizational Results, with the aim of ensuring practical integration of regional priorities within FAO's existing corporate work planning and resource allocation mechanisms.

Third, the implementation mechanism for the RPF was reviewed and an operational mechanism was developed. This included the restructuring of RAP's organizational structure in alignment with a more broad-based grouping of technical teams into three thematic, technical Regional Office Groups (ROGs) with a flatter management structure, creation of multi-disciplinary teams and networks to promote concerted efforts and team spirit, streamlining of office procedures with more delegation of authority to the Group Coordinators, and strengthening of RAP delivery mechanisms and core functions. These changes are geared towards promoting the effective and timely servicing of RAP's technical expertise to respond to the needs of member countries.

With the above changes, RAP will ensure that its biennial Programme of Work and Budget (PWB) and regional Unit Results (URs) are formulated based on a regional perspective in line with the regional priorities as defined in the RPF, and that the RPF, reflecting the needs and priorities of Asia and the Pacific region, will contribute to the formulation and/or adjustment of FAO's global priorities and Organizational Results.

In short, the RPF is a road map aimed at maximizing RAP's contribution to FAO's strategic global goals in accordance with its available resources in the coming decade. Further work is required to translate the broad framework into a detailed action plan to identify more specific regional and/or country based actions.

This Regional Priority Framework is not perfect. It requires further adjustments to meet the needs of people in the region who are affected by rapidly changing socio-economic and environmental conditions. The RPF is a living document which will allow flexible adjustments when necessary, with a major review/revision once every four years.

It is my firm conviction that the strategies and programmes identified in the RPF will support national and regional efforts to eliminate poverty and chronic hunger through economic and social progress and sustainable natural resource management, and by doing so will reduce the absolute number of people suffering from hunger and undernourishment while protecting the natural environment for our children and future new generations to come.

Finally, I wish to express, on behalf of the FAO Regional Office for Asia and the Pacific, my sincere gratitude to all those who contributed and assisted in the formulation of this important document.

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Regional Representative for Asia and the Pacific

Executive Summary

The setting

Strong and consistent economic growth in Asia and the Pacific region over most of the past 40 years was associated with significant drops in hunger and poverty, until recently. Appropriate policy and structural adjustments fueled increased agricultural and industrial growth, which raised farm outputs and lowered food prices. Yet millions are still mired in poverty and their plight has worsened significantly since the food crisis of 2007–08 and the subsequent global economic recession. The region continues to be home to two-thirds of the world's nearly one billion hungry people.

A major factor in the present situation is the fact that agricultural growth has stagnated in recent years, with a serious decline in agricultural investment, and depletion and degradation of natural resources in the face of continued population growth. The benefits of the green revolution have now been fully realized and there are no revolutionary technologies on the horizon that can rapidly and sustainably reinvigorate agriculture. Outward migration, especially of the young generation, has led to the “greying” and feminization of the sector; the coping mechanisms of poor households are few, given their limited assets and the fact that a deep recession occurred so soon after the food crisis. Investment in agriculture has been declining. Climate change will impact agriculture in many ways, particularly in areas vulnerable to natural disaster.

Vision, Mission and Regional Priority Areas

The vision of the Regional Priority Framework is a food-secure Asia and the Pacific region. Its mission is to help member countries halve the number of undernourished people in the region by 2015 by raising agricultural productivity and alleviating poverty while protecting the region's natural resources base. In order to fulfill the Framework's vision and mission, a highly participatory process was used to translate FAO's strategic objectives into the following five Regional Strategic Priority Areas.

A. Strengthening food and nutritional security. Governments need to acknowledge that problems of undernutrition and micronutrient deficiency persist, and they should sensitize the public to the magnitude of the problem, its causes and effects and possible strategies to combat it. Nutritional considerations need to be seriously integrated into agriculture, livestock, aquaculture and related programmes so that this dimension can be monitored and desired outcomes achieved. The key objectives of this priority area are to contribute to the eradication of hunger and malnutrition in Asia and the Pacific region in line with the targets of the World Food Summit (WFS) and the Millennium Development Goals (MDGs), and to support regional initiatives towards meeting these goals. The primary tools will be an analysis of vulnerable populations, improved means of information gathering and dissemination, institution building, policy dialogue, situation analysis, advocacy, partnerships and strengthening South-South collaboration. Expected results include an improved policy environment for food and nutritional security, improved policy and technical support, reports on food security issues and strengthened cost–benefit analyses.

B. Fostering agricultural production and rural development. Agriculture can contribute significantly to economic growth in normal times and serves as an employer of last resort in times of crisis. Stagnation of crop productivity, as reflected in yield plateaus in some parts of the region, is a critical constraint to meeting rapidly rising demand. A key element of the strategy is therefore to focus on avenues for boosting productivity in major cereal crops. Livestock and fisheries hold great potential, but sustainability is key to continuing success in all subsectors. The key objectives of this priority area are to increase agricultural output and productivity, raise rural living standards, improve market access and support agribusiness. The primary tools will be the increased use of new technologies, technical support to members and subregions, support to agribusiness and capacity building. Expected results include enhanced policy prescriptions, strengthened research facilities, boosted institutional capacity and promotion of knowledge exchange.

C. Enhancing equitable, productive and sustainable natural resource management and utilization. Growing appreciation of sustainable use and management of natural resources and their strategic contribution to meeting present and future demand in the region is an encouraging trend. It is essential to build on this in the face of population growth and growing pressure on land, water, fisheries and forests. The key objectives of this priority area are to reduce natural resource degradation to a sustainable level, increase resource productivity and conserve genetic resources. The primary tools will be capacity building and technical support, gender mainstreaming, strengthening national capacities, regional collaboration and policy guidance. Expected results include regional assessment and monitoring, capacity building, improved water management, ecosystem-based regional fishery management and effective participatory approaches to forest and biodiversity protection.

D. Improving capacity to respond to food and agricultural threats and emergencies. The region is prone to a wide range of natural disasters. Transitory shocks cause chronic poverty and hunger, particularly among those with limited coping capacity. Improving capacity to prevent, manage and respond to food threats and emergencies will help stabilize food availability and access, and this must become an integral component of hunger and poverty alleviation efforts in the region. The key objectives of this priority area are to facilitate a shift in emphasis from purely emergency response towards broad-based and concerted disaster risk reduction, preparedness and prevention programmes, with emergency response followed up by linking relief and rehabilitation to development (LRRD) to mitigate the long-term impact. The primary tools will be better management information systems, collaboration and partnership on regional mechanisms, advocacy and technical assistance and regional networking and capacity building. Expected results include enhanced capacity, better regional collaboration and networking mechanisms, technical support and capacity building, practical technologies and innovations on the disaster risk reduction – linking relief and rehabilitation to development (DRR-LRRD) spectrum and improved approaches on resettlement and rehabilitation of internally displaced persons (IDPs).

E. Coping with the impact of climate change on agriculture and food and nutritional security. The agricultural sector both affects and is affected by climate change. While it contributes to mitigating it, agriculture affects climate change through the emission of greenhouse gases (GHGs) from croplands and animals. It is affected by loss of agricultural land, salt water intrusion, changes in temperature and rainfall regimes and increasingly severe weather hazards. The key objectives of this priority area are to identify innovative technologies and appropriate practices for coping with the adverse impacts of climate change, and to reduce the contribution of agriculture to GHG emissions while improving its role as a carbon sink. The primary tools will be assistance with policy formulation, technical assistance and capacity building support, advocacy, case studies in selected major food production areas on the impact of climate change, and dissemination of suitable technical options and practices. Expected results include strengthened FAO contribution to policy dialogues and technical cooperation, exchange of information on research and development of climate change-resilient varieties, development of agricultural strategies with strong potential for climate change adaptation and mitigation, identification and promotion of improved crop, aquaculture and livestock production systems and practices contributing to reduced GHG emissions.

Regional priority results, core functions and implementation arrangements

Within the above regional priorities, the Regional Office for Asia and the Pacific (RAP) will contribute to Organizational Results and Strategic Objectives articulated in the FAO Strategic Framework, following the results-based approach. RAP core functions are: (a) providing perspectives, trend monitoring and assessments; (b) capacity building and technical support; (c) policy assistance and advice to subregions; (d) building partnerships and alliances; (e) strengthening information, knowledge and statistics; and (f) developing international instruments. Implementation will be facilitated by RAP's new organizational structure, which involves building multidisciplinary teams around three core areas: (a) agricultural production systems; (b) economic, social and policy assistance; and (c) natural resources and the environment.

1. THE SETTING

1. The Asia-Pacific region is one of great diversity and dynamic change. Strong and consistent growth over 40 years has been associated with significant drops in hunger and poverty indicators. Led by agricultural growth, appropriate policy and institutional reforms raised producer incomes and wages and lowered food prices, improving access by poor consumers to affordable food. The incidence of undernourishment declined substantially and caloric intakes significantly increased.
2. The quality of diets also improved for many, as calories from oils and fats, fruits and vegetables and meat and dairy products increased in importance relative to calories from cereals. Better education and improved status of women likewise made strong contributions to reduction in child malnutrition.
3. Rural transformation and migration altered income and employment patterns with advantageous expansion of the service sector and non-farm income sources in rural areas. Increased focus on broad rural development emerged as a key approach to alleviating food insecurity and poverty.
4. The opening of markets improved the mobility of people, goods and services and created employment opportunities for the labour-rich Asia-Pacific economies. At the same time the growing links within the region and with the rest of the world ushered in risks of transboundary plant pests and animal diseases.
5. Likewise, the integration of markets also transmitted negative externalities across national boundaries with relative ease and notable speed, as observed in recent episodes such as the 1997 Asian economic crisis, the 2007–08 soaring food prices, the 2008-09 global financial crisis and a number of fallouts from food safety breaches.
6. The following sections briefly focus on selected aspects and dimensions of these trends, especially those of significant relevance for charting the agricultural and rural development priorities and needs in the region during the coming years.

1.1 Policy and institutional reforms

7. Macro-economic and trade policy reforms in most of the member countries¹ in the 1980s underpinned rapid growth, since they removed the inherent bias against agriculture and the disincentives imposed by foreign exchange and trade controls. Trade liberalization and open markets encouraged foreign direct investment, facilitating transfer of technologies and, in recent years, integration of supply chains.
8. Meanwhile, institutional innovations rationalized property rights, encouraged long term private investment and generated favourable dynamics for agricultural productivity and output growth. The role of governments evolved towards the provision of enabling environments and public goods bringing significant pay-offs in efficiency gains, reduced transaction costs and private development initiatives.
9. The policy consensus on the need to reduce the public sector role in development in the 1980s may to some extent have led to a weakening of public sector support to agricultural production and livelihood improvement by small farmers and other rural poor. Likewise, an overall lack of progress in public policy and programmes in land reform did not help growing landlessness, land fragmentation and unsustainability of farming systems. Low productivity in food production and lack of income and employment opportunities in many countries contributed

¹ See Annex 1 for a list of FAO member countries in Asia and the Pacific region.

to disappointing performance in terms of progress towards the targets of both the WFS and the MDGs, exacerbated by the recent food and financial crises, so that the region as a whole is unlikely to meet either target.

10. There is a wide diversity and mixed pattern of experience across the region regarding decentralization and devolution of authority. Many countries saw widening participation of stakeholders, including civil society, and shaping of development activities in ways more attuned to local conditions, endowments and needs. Notable in this regard are positive experiences with land and forest allocation in China and Viet Nam and a general trend towards decentralization of fisheries management. In many other countries however, control remains with the central authorities.

11. Civil society, including farmer's organizations, has played an increasing role in sharing information and communication on agricultural, environmental and development issues with decision makers at all levels. This was done by building effective institutional mechanisms for policy advocacy on local to global concerns.

1.2 Changing food systems²

12. Rapid income growth, urbanization and changing lifestyles have resulted in more diversified dietary patterns in recent years. Processed foods needing little preparation time have become popular with consumers as women's participation in the labour force has expanded. Demand grew for meat, fish, dairy products, fruits and highly processed convenience foods as consumers were able to express their preferences for more diversified diets. All of these changes have been helped by ready availability and competitive prices at emerging supermarkets and fast food outlets.

13. The commercial transformation of agrifood systems in Asia and the Pacific region poses new challenges, especially for numerous small producers, traders and processors. They must be competitive and responsive to market demand for a widening array of goods and services while supplying regular volumes and complying with standards for food safety and quality in both national and international markets. The vertical coordination of modern food supply chains has the potential to increase employment and open new markets. But it also brings with it the threat of marginalization of small farmers with fragmented landholdings.

14. In general, the numerous small scale producers and rural stakeholders in the region possess limited technical skills, knowledge and capacity to satisfy modern market requirements. Weaknesses in institutions and governance related to food safety and quality standards also seriously limit the gains from expanded food trade. The fragmentation of responsibilities and overlaps in authority among agencies within a context of generally weak implementation capacity have contributed to poor enforcement of regulatory frameworks.

15. There are many key questions on how best to link the numerous small and fragmented farms in land-scarce developing economies with modern supermarkets and value chains. What public goods are required? What role should land market regulations play in allowing or hindering farm restructuring? Can small farmers and the rural landless benefit from increased employment on larger farms? In some countries, the agricultural cooperatives sector has played a successful role in providing small-scale producers with inputs, credit and new technologies. How can these successes be more widely replicated?

16. Appropriate policies, public goods and services are necessary to make progress in the following areas:

² A food system is a set of dynamic interactions between and within bio-geophysical and human environments that influences both activities and outcomes all along the food chain (production, storage and processing, distribution, exchange, preparation and consumption).

- ensuring biosecurity throughout the supply chain through best management and hygienic practices in production, marketing, processing and manufacture;
- improving the application of grades and standards, implementing safety management systems such as the Hazard Analysis and Critical Control Point (HACCP) approach, and traceability systems and monitoring and testing at strategic points in supply chains;
- innovative institutional arrangements that are competitive, sustainable and inclusive, e.g. certification, contract farming and out-grower schemes enabling small producers to enter into supply arrangements with large processors;
- increasing farm productivity and connectivity to markets through public-private collaboration; and
- supporting development of small farmer enterprises, including agricultural cooperatives and instituting participatory decision-making mechanisms that enable good local governance.

17. With changes in dietary patterns, new threats to food and nutritional security have arisen because of unhealthy consumption patterns stemming from lack of information and awareness about proper nutrition. Many people in the region now consume excessive amounts of sugar and fats, leading to obesity and poor health outcomes. Nutritional well-being is thus threatened by the rapid emergence of non-communicable diseases and vitamin and mineral deficiencies creating a simultaneous double burden of overnutrition and undernutrition. On a more positive note, there is also growing awareness of the health benefits of certain foods such as fruits, vegetables and fisheries products that offer significant opportunities for trade and market development in the region.

1.3 Changing nature of poverty and food insecurity³

18. Despite significant economic progress, Asia and the Pacific region has the majority of the world's poor and hungry.⁴ In the wake of the recent food and economic crises in 2007–09, FAO estimated that 642 million people in the region suffered from hunger in 2009, making up 63 percent of the world total. Even before the crises, there were 336 million undernourished in South Asia in 2004–06 along with 136 million in East Asia, 85 million in Southeast Asia and 7 million in Central and Western Asia. The prevalence of underweight children as well as stunting and wasting is higher in South Asia than anywhere else in the world.

19. Despite increasing urbanization, most of the poor still live in rural areas, where levels of investment in human resources and social services are low. Much urban poverty is a spillover effect of rural poverty, as the lack of opportunity in rural areas drives the poor to migrate to the cities in search of productive employment. Persistent poverty and rising inequality threaten social coherence and harmony, creating the potential for instability.

20. Poverty persists in certain areas and social groups for various reasons:

- lack of access to productive assets because of either poor resource endowments or disenfranchisement or both;
- decline in the quality of natural resources;
- poor services, infrastructure and links to the mainstream economy or growth centres;
- circumstance-based deprivation caused by shocks such as natural disaster or death of the family wage earner; and
- social exclusion resulting from such factors as gender, ethnicity, religion, social class or caste.

³ Food security exists when all people at all times have physical or economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

⁴ FAO, *The State of Food Insecurity in the World 2009*.

21. The last two categories do not typically respond well to the usual agricultural and rural development activities. As several regional member countries have recognized, reducing this type of poverty needs more effective and innovative approaches, including rights-based solutions.

1.4 Increasing pressure on the natural resource base

22. Over the past 40 years, natural resources in Asia and the Pacific region have been subjected to increasing degradation. The pressure on land, forests, water, aquatic resources and coastal ecosystems has been severe in many areas. Growing populations, persistent poverty and institutional weaknesses, such as ineffective governance or ambiguous property rights, exacerbate an already-difficult situation. This threatens livelihoods, food and nutritional security, people's health and long-term sustainable development.

23. Land and water scarcities are severe constraints in this densely populated region. A substantial part of its land area is affected by one form of degradation or another. Thus:

- deforestation, inappropriate agricultural practices, inefficient irrigation water use, excessive groundwater extraction and industrial development contribute to land, soil and water degradation and coastal erosion;
- commercialization and intensification of crop and animal farming systems have led to excessive and/or unbalanced applications of chemical fertilizers and excessive or inappropriate pesticide use deplete soil health and increase water and atmospheric pollution; the growth of urban and peri-urban intensive livestock rearing withdraws nutrients from the land (in the form of crops grown as animal feeds), but does not return them, so that instead of fertilizing the fields, livestock waste pollutes land and water;
- inland, coastal and oceanic waters of the region are impacted by heavy fishing pressures and habitat degradation;
- runoff and discharge constitute increasing sources of transboundary river water pollution; and
- irrigation and drainage systems deteriorate, because of poor management and maintenance.

24. Appropriate policies, regulations, technologies and good governance are required. They should be accompanied by strategic investments to modernize the natural resources sector and build regional capacity in order to create more productive and sustainable systems while preserving the resources for future generations. Prudent natural resource management is a crucial aspect of food security in Asia and the Pacific region.

1.5 Sustaining investments in the agriculture and rural sector

25. The continuous agricultural growth, especially of cereal yields that underlay decades of declining real food prices may have run its course. Affordability of food is still supportive of the economic development process: it is pro-poor and should be fostered. However, without adequate investment in technical change, it is simply a matter of time before the potential created in the past, e.g. by the green revolution, is exhausted.

26. Agricultural production may not be able to keep pace with increasing population, the income-driven demand for livestock and dairy products and high value crops and new demands for biofuels. There is evidence of growing stress on existing cropping and livestock production systems owing to poor maintenance of infrastructure, such as that for irrigation and water control, drainage and waste disposal. Inadequate supporting services like veterinary medicine compound the problem.

27. Young people, mostly males, leave rural areas for urban employment causing rural labour scarcity, rising average age of farmers ("greying of agriculture") and an increasing ratio of female to male farm workers (feminization of agriculture). Meanwhile, research and extension services

have been decentralized and devolved from central governments without the commensurate strengthening of necessary local capacities.

28. Investment in agriculture and rural areas as a proportion of total investment had been declining for many years as a result of the rapid growth of the industrial, manufacturing and service sectors. But since the mid-1980s the decline has been moderated and in a few countries even arrested as new technologies – especially biotechnology – and international trade extended the investment horizon. As a result, the area under genetically modified organism (GMO) crops is now expanding rapidly in several developing countries. Bt cotton adoption has surged in both China and India. Although many have reservations about the long-term impact of GMOs, for the present they have resulted in higher yields and reduced pesticide use. The private sector is increasing its involvement in hybrid rice, offering opportunities for higher yields and more profits for farmers. New varieties of submergence-tolerant rice give hope to many farmers who cultivate flood-prone marginal land. But much more remains to be done. There is a need for more field-tested research findings and science-based and informed dialogue on the potentials and risks of biotechnology, especially GMOs. In this regard there is also a need to upgrade capacity in biosecurity regulation.

29. Development and uptake of technologies require an enabling environment of sound and effective policies, institutions, legislation, infrastructure and human capacity. Along with research, development and extension, these critical factors must be improved in a comprehensive and integrated manner to enhance and sustain investment in agriculture.

1.6 Coping with external shocks to food and nutritional security⁵

30. The sharp commodity price spikes in 2007-08 underscored the fragility of the world's food systems in their ability to ensure food security for the poor. Macroeconomic policies that led to large exchange rate shifts, crop failures as a result of droughts and natural calamities, higher prices on world energy markets and increased biofuels demand all contributed to the price surges. As governments grappled with the new crisis, inappropriate policy responses exacerbated price volatility and undermined trade as a practical strategy for ensuring food and nutritional security.

31. Excessive price volatility on international markets encourages inward-looking strategies of self-sufficiency at the expense of efficiency in use of scarce resources or comparative advantage. Unfortunately, such strategies set the stage for increased world price fluctuations in the future.

32. International food prices have declined from their peaks in 2008, but they are still high and projected to remain above past averages in the next decade. Thus, the era of a downward trend in real food prices may be over. Although rising cereal prices improve farm incentives, the net impact of soaring prices, taking into account poor consumers and food-deficit small farmers, is likely to be more urban and rural poverty and food insecurity. These effects were compounded by the 2008-09 economic crisis which reduced employment, wages and remittance income for many poor households.

33. The coping mechanisms of poor households are few, given their limited assets and the fact that the economic crisis occurred so soon after the food crisis. Limited coping mechanisms often mean reduced investment in education and health, thus negatively affecting future food security. Especially vulnerable to economic downturns are the small island economies wherein food consumption patterns have changed. Here, traditional staple crops such as roots and tubers have been largely replaced by imported, processed cereals thereby increasing food import

⁵ Soaring food prices raised the number of hungry people in the world by 115 million in the past two years, bringing the total to over one billion.

dependency. These economies are heavily dependent on tourism and migrant worker remittances, both of which are at risk in a period of recession. Their agricultural sectors also have limited capacity to absorb displaced labour.

34. In coping with economic and other external shocks, government policy responses must protect and promote those investments in public goods and services that build long-term capacity and resilience of the agricultural and rural sectors. To avoid recurrence of food crises, vulnerable countries need to enhance investment in research, development and extension services that are essential for food security in the future.

1.7 Coping with the impact of climate change

35. Asia and the Pacific region is prone to a wide range of natural disasters that threaten farm and rural livelihoods, such as droughts and floods, highly pathogenic avian influenza, cyclones, tsunamis and earthquakes. Episodes of natural and man-made shocks to food and nutritional security will continue to occur. Managing threats and risks from disasters remains a strategic challenge. Climate change may increase the frequency and severity of both sudden and slow onset weather-related disasters.

36. Deforestation, forest degradation and exploitative agricultural practices such as reliance on inefficient cattle feedlots and excessive fertilizer use currently account for about 30 percent of greenhouse gas emissions. Crop, livestock and aquaculture production cause water pollution by nitrates, phosphates and pesticides. They are major anthropogenic sources of greenhouse gases (e.g. methane, nitrous oxide). They also contribute to other types of air and water pollution. Reducing emissions arising from deforestation and forest degradation has recently been receiving increasing attention and resources. But reducing emissions from agricultural lands has yet to attract similar focus.

37. Climate change will impact agriculture through extreme weather events and shifts in agro-ecological zones. Changing farming patterns may threaten *in situ* agricultural biodiversity and increased seasonal weather variations will affect agricultural production and food supplies. Rising sea levels and storm surges have huge implications for coastal fishing communities particularly in low-lying small island developing countries and in the tropical deltas. In these areas, climate change adaptation and mitigation clearly constitute a high priority.

38. The large and growing population and its concentration in resource-rich areas in Asia and the Pacific region make climate change preparedness and mitigation tasks more difficult. Moreover, climate change will have a tremendous impact in the Pacific region and among some Asian archipelagic nations such as Maldives, where, for example, there is a risk of small islands literally disappearing. Hopefully, increased government awareness of the gravity of climate change will engender the necessary political will to mobilize resources for comprehensive and concerted action plans. These should be designed to, among other things, minimize agriculture's GHG emissions, reduce fossil-fuel use, increase carbon sequestration and improve capacity for adaptation to climate change.

1.8 Moving agriculture and the rural sector forward

39. Sustained reduction in hunger and poverty remains at the top of the unfinished development agenda of the Asia and the Pacific region. Despite population pressure and resource constraints, the region has committed under the MDGs to halve the proportion of the population who are hungry and poor by 2015 and eventually eliminate hunger and poverty altogether. To achieve these goals requires an important contribution from agriculture and the rural sector while simultaneously protecting the sustainability and integrity of the natural resource base.

40. The remaining pockets of hunger and poverty have complex causes and there may be limits to the trickle down effects of economic growth and its ability to alleviate serious poverty.

The business-as-usual approaches of the past may no longer suffice. Forward looking and innovative solutions must be found to address persistent absolute and relative poverty and growing income inequalities.

41. The recent financial and economic difficulties in developed country markets suggest a need to shift from export-based growth and orientation in Asia and the Pacific region towards more balanced strategies that also emphasize domestic markets and intra-regional trade. It will be important to tap the Region's huge population and consumer base. Diversifying markets is a pragmatic measure for managing inherent economic and trading risks and uncertainties and sustaining balanced development.

42. In the context of natural resource scarcity and constraints imposed by degradation, sustainability issues and global warming, future contributions to poverty eradication and food security from agriculture must be propelled by broad-based technical change across commodities and resource regimes. Attention must focus on coping with the urgent threat of water scarcity in addition to land scarcity, degradation and other constraints. Agricultural and rural sector stakeholders must acquire the capacity to respond to changing markets and participate in the mainstream of development.

43. Asia and the Pacific region faces daunting agriculture and rural development challenges. It must go about its strategic tasks with a sharp focus on the main priorities, supported by strong political will and unrelenting commitment.

2. REGIONAL PRIORITY AREAS

44. As embedded in its Constitution, FAO's mandate is raising the level of nutrition and standard of living of the people, securing sustainable improvements in efficiency of production and distribution of food and agricultural products, improving the condition of the rural population, contributing to an expanding world economy and ensuring humanity's sustainable freedom from hunger. FAO's corporate overarching global goals and 11 strategic objectives are presented in the table below.

2.1 Overarching global goals

Vision of FAO and global goals of Members

FAO's vision, approved by the 35th (Special) Session of the FAO Conference in November 2008, is a world free of hunger and malnutrition where food and agriculture contributes to improving the living standards of all, especially the poorest, in an economically, socially and environmentally sustainable manner. The three overarching global goals comprise the basic foundations of the Regional Priority Framework for Asia and the Pacific 2010-2019 (RPF), which are:

- reduction of the absolute number of people suffering from hunger and malnutrition and progressively ensuring a world in which all people at all times have sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life,
- elimination of poverty and the driving forward of economic and social progress for all with increased food production, enhanced rural development and sustainable livelihoods, and
- sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations.

The Conference also approved the following set of eleven Strategic Objectives.

FAO's Strategic Objectives

- A) Sustainable intensification of crop production.
- B) Increased sustainable livestock production.
- C) Sustainable management and use of fisheries and aquaculture resources.
- D) Improved quality and safety of food at all stages of the food chain.
- E) Sustainable management of forests and trees.
- F) Sustainable management of land, water and genetic resources and improved responses to global environmental challenges affecting food and agriculture.
- G) Enabling environment for markets to improve livelihoods and rural development.
- H) Improved food security and better nutrition.
- I) Improved preparedness for, and effective response to, food and agricultural threats and emergencies.
- K) Gender equity in access to resources, goods, services and decision-making in the rural areas.
- L) Increased and more effective public and private investment in agriculture and rural development

Source: FAO Strategic Framework 2010-2019 (Rome, 2009)

45. FAO's Strategic Framework 2010–19 was adopted by the FAO Conference in November 2009. This included *inter alia* a set of Strategic Objectives (see Box above). The thrust of this framework is global, whereas at country level the Organization's partnership with government is based on the National Medium-Term Priority Framework. Between these two levels the regional priority framework will: (a) focus FAO's work in the region on the specific characteristics and diverse needs of the vast complex area; and (b) serve the needs of member countries in terms of answering questions that are best addressed at the regional level. There are many needs, issues

and challenges that require focused actions at this level.⁶ They include issues that require collective action because of *inter alia* scale and scope economies, the existence of information failures, and externalities in building appropriate knowledge. They also include food and agricultural matters that transcend borders, such as transboundary pests and diseases, food safety and trade in agricultural produce, climate change and adaptation, market externalities (where the actions of one may affect others) and shared common property resources like fisheries and water. In order to achieve this linkage between global and national levels, after the 29th Regional Conference, RAP launched a series of consultations with member countries and other concerned stakeholders culminating in the production of this RPF, comprising a coherent set of regional actions and possible results to be achieved over the period 2010-2019. It will serve as the basis for the formulation of regional results for the 2012-13 biennium (document APRC/10/8) contributing to the achievement of FAO's Strategic Objectives.

2.2 Regional Priority Framework and Country focus

46. The RPF draws from RAP's in-depth knowledge of regional member countries. For this reason the FAO Regional Office will adjust its operational structure and strengthen country task forces to provide effective support via technical backstopping and policy advice.

47. The RPF lends support to National Medium-Term Priority Frameworks (NMTPFs) and takes care of cross country core issues and concerns. Country groupings and the context for formulating responsive regional actions may vary from issue to issue. The RPF guides efficient deployment of scarce expertise and financial resources in capacity development, policy and technical assistance, information dissemination and knowledge exchange. A regional approach that fits both the needs and capacities of recipients adds value to specific country foci and brings tangible mutual benefits to participating countries.

2.3 Regional priorities of Asia and the Pacific⁷

Vision

A food-secure Asia-Pacific region

Mission

To help member countries halve the number of undernourished people in the region by 2015 by raising agricultural productivity and alleviating poverty while protecting the region's natural resources base.

Five strategic priority areas are identified:

- A) Strengthening food and nutritional security.
- B) Fostering agricultural production and rural development.
- C) Enhancing equitable, productive and sustainable natural resource management and utilization.
- D) Improving capacity to respond to food and agricultural threats and emergencies .
- E) Coping with the impact of climate change on food and agriculture.

⁶ In this document, it should be emphasized that the term "regional" may also refer to subregional groups.

⁷ Regional priorities or thematic areas are closely intertwined and reinforcing each other. Operationally, they are treated as programme groups, in which their multi-sectoral integration is assured through inter-disciplinary expertise and working arrangements across fields of competence in RAP.

48. The first of these priorities lies at the centre of RAP's regional responsibilities. It is a major development goal subscribed to and affirmed by Asia-Pacific FAO member states under: (i) the MDGs; (ii) the 1996 WFS; (iii) the 2002 *WFS: Five Years Later* and, most recently; and (iv) the Declaration of the 2009 High-Level Conference on *World Food Security: the Challenges of Climate Change and Bioenergy*. The 29th Asia-Pacific Regional Conference (APRC) held in Bangkok in March 2009 renewed the region's commitment to reduce the number of hungry and poor in line with the MDGs.⁸

49. The other four priorities underpin the strengthening of food and nutritional security. First, Priorities B and C provide the pathway and means to lift people out of food and nutritional insecurity through equitable and sustainable management and use of natural resources, strengthening food and agricultural production and supply (availability and stability) and promoting increased rural labour absorption and incomes (access). Priorities D and E develop the capacity to cope with impacts of climate change and transitory shocks or manage systemic and external threats to production and livelihoods (stability) thereby preventing more vulnerable people from falling into chronic food insecurity. Together, these five regional priority areas represent a comprehensive coverage of multifaceted aspects of food and nutritional insecurity, especially those that transcend national boundaries. RAP's priorities are elaborated below. Mapping of regional priorities with FAO strategic objectives is presented in the box below.

Mapping of Asia-Pacific 2010-2019 regional priorities corresponding to organizational results of the FAO Strategic Framework 2010-2019

Asia-Pacific Regional Priorities 2010-2019	Organizational results of the FAO Strategic Framework 2010-2019 (a)
A: Strengthening food and nutritional security	D2, D3 H1, H2, H3, H4, H5 K1, K2
B: Fostering agricultural production and rural development	A1 B1, B2, B4 C4, C6 D4 G1, G2, G3, G4 L1
C: Enhancing equitable, productive and sustainable natural resource management and utilization	A4 B3 C1, C2, C3, C5 E1, E2, E3, E4, E5, E6 F1, F2, F3, F6
D: Improved capacity to respond to threats and disasters	A2, A3 B2 D3 I1, I2, I3
E: Climate change, its impact on agriculture and food security and nutrition	E4, E6 F5

Note: (a) See Annex 2 for detailed descriptions

⁸ Para 24 Report of the Conference, 29th APRC, Bangkok, Thailand, 26–31 March 2009.

Regional Priority A. Strengthening food and nutritional security

Objectives of Strategic Priority Area A

- contribute to the eradication of hunger and malnutrition in Asia and the Pacific in line with the targets of the WFS and the MDGs; and
- support regional initiatives taken by partners and other UN organizations to eradicate hunger and malnutrition through specific action in food and agriculture.

50. Food and nutritional security refers to the access of all people at all times to sufficient, nutritionally adequate and safe food, with a specific interim WFS target to reduce the number of chronically undernourished people to half their 1990-92 level no later than 2015 as part of an ongoing effort to eradicate hunger in all countries.

51. The L'Aquila Food Security Initiative (AFSI) of July 2009, in expressing deep concern with the impact of the global economic crisis and food price spikes on countries least capable to meet the MDG targets on poverty and hunger, announced a goal of mobilizing US\$20 billion over a period of three years for increasing G8 assistance to agriculture and food security.

52. FAO views food and nutritional security in a holistic way, i.e. promoting the use of integrated food-based strategies that assist nations, communities and households to achieve their "overall right to food." In addition to increasing the production and productivity of staple food crops, improving crop and dietary diversification is another important measure for addressing undernutrition and micronutrient deficiencies.

53. Advocacy aimed at placing food security and nutrition at the top of the development agenda and regional collaboration is the key thrust in this priority area. This is supported by strengthening of statistics and information and communication technology, regional assessments of the origins and anatomy of hunger, perspective studies and projections and focus on external constraints on food security best addressed through collective actions. Raising levels of nutrition will best be achieved through interinstitutional and intersectoral collaboration at both regional and country levels.

Issues and Challenges

54. The region has made significant strides in reducing poverty and food and nutritional insecurity. But progress was set back by soaring food and commodity prices, the global financial crisis and various natural disasters. Episodes like soaring food prices in 2007-08 or the economic downturn in 2009 underscore the fragility of the progress achieved in food and nutritional security. Concerns include how to mitigate the particularly harsh impact on smallholders and landless workers. Another issue relates to ensuring that bioenergy demand does not imperil food security or further marginalize the poor.

55. The nexus between food security and demographic transition, linked closely to gender issues and population, has yet to command adequate attention in policy and strategy formulation. The transition to low fertility rates and dependency ratios was associated with increased household savings and private investments that fuelled fast economic growth in East Asia, thereby improving food security and reducing poverty incidence. Gender factors also impact rural household food production and management, and by implication the supply and quality of food. How population and gender issues relate to household food security and nutrition is worthy of careful consideration and analytical attention.

56. Advocacy of a central place for food and nutritional security in the regional agenda must continue, with emphasis on small and marginal producers, landless workers and other vulnerable

populations. Solutions to food and nutritional insecurity have to integrate gender dimensions with reference to maternal and child health, women's labour force participation and migration, fertility rates and the demographic transition. Serious child undernutrition within the region is an insidious problem that must receive strategic attention and urgent and sustained actions. Consideration must also be given to the food insecurity of those who are outside the mainstream of development and for whom rights-based entitlements may be most appropriate.

57. Governments need to acknowledge that problems of undernutrition and micronutrient deficiency persist, and they should sensitize the public regarding the magnitude of the problem, its causes and effects and possible strategies to combat it. Food insecurity and malnutrition result in serious public health problems and loss of human potential. Policies which continue to emphasize agricultural production without taking into consideration their nutritional dimension need to be revisited. This is particularly important in the context of supplying micronutrients to people through production of a sufficient quantity of fruits and vegetables and foods of animal origin. There is therefore a need to reorient the thrust away from production of grains alone. Intensifying the production of small livestock is important for improving the micronutrient content of rural diets. Efforts are also needed to harness the potential of underexploited traditional indigenous plants which have proved to be rich sources of micronutrients. The roles that fish and household poultry play in food and nutritional security of many rural and coastal populations have often been underestimated. They are now increasingly recognized.

58. A well-developed policy environment should support small-scale and semi-commercial farming systems that maximize outputs of micronutrient-rich foods. Nutritional considerations need to be seriously integrated into agriculture, livestock, aquaculture and related programmes so that this dimension can be monitored and desired outcomes achieved.

59. Nutritional education and communication are also crucial to ensure balanced production, availability and utilization of a range of diverse foods, including pulses, vegetables, fruits, meat, milk and eggs. The implementation of food and nutrition policy tools, such as the food-based dietary guidelines (FBDGs) can help in this regard. So too can the promotion of urban agriculture. Furthermore, food distribution issues at the household level must be addressed and food insecurity and vulnerability mapping systems established where they do not already exist.

60. Upstream policy analysis and advice to member countries and regional economic organizations on agriculture and food security, rural development and farmers' livelihood development constitute a crucial thrust. However, a lack of reliable information constrains understanding of food insecurity, formulation of sound policies and programmes and effective monitoring. Improved statistical systems are needed to provide relevant and up-to-date data, especially in the area of gender disaggregated agricultural statistics. Information should facilitate food emergency preparedness and timely identification of emerging issues and challenges. Remote sensing technology and Geographic Information System (GIS) databases on disaster-prone and vulnerable areas can be useful for risk reduction and management. Analysis is needed to help clarify why food insecurity and malnutrition persist in certain pockets and in certain seasons and what solutions may be effective.

61. Governments, international institutions, development partners, donors and other relevant stakeholders must collaborate to ensure that political will and attention are mobilized and human capacities are developed to deal explicitly with the special needs of poor vulnerable groups in pragmatic and sustainable ways.

Primary tools

62. The primary tools of priority area A are:
- analysis of population groups most vulnerable to food insecurity and malnutrition, including monitoring the implementation of the WFS Plan of Action and the MDGs with special attention to the South Asian subregion;
 - improvement of data and information management systems (e.g. CountrySTAT, remote sensing, GIS for development planning, disaster- and vulnerability-mapping and surveillance and early warning);
 - capacity building in statistics (e.g. agricultural censuses and household surveys), food safety standards;
 - analyzing barriers to trade in order to track progress in food security and improve policy formulation;
 - technical assistance in upgrading national institutional abilities to develop nutrition curricula and implement professional training programmes;
 - facilitation of dialogue on pro-poor policy formulation, resource mobilization and programme implementation at regional, national and subnational levels;
 - advocacy to promote improved consumer information and nutrition education so that members of food insecure households and other consumers can make informed decisions;
 - comprehensive review of policy options for social protection and safety nets, especially for small producers, landless rural workers and those suffering from circumstance-based food and nutritional insecurity;
 - strengthening South-South cooperation in sharing innovative approaches and best practices in food and nutritional security;
 - partnership with regional economic integration organizations (REIO) in pursuance of food security and nutrition goals particularly in relation to vulnerable groups; and
 - publication of targeted information products such as RAP Selected Indicators and regional *State of Food and Agriculture* (SOFA) that identify food security trends and emerging issues as well as exceptional bulletins on food security hot spots or similar breaking events.

Results

63. The results of priority area A are:
- improved policy environment for food and nutritional security and consumer health protection;
 - policy and technical support provided in the formulation and preparation of NMTPFs;
 - analytical papers on the progress on WFS Plan of Action and MDGs and causes of food and nutritional insecurity prepared and strategies to deal with persistent poverty and food insecurity formulated;
 - analytical reports on biosecurity, trade and development and hunger and poverty, including issues on feminization of agriculture, “greying of agriculture”, migration and fertility presented to concerned regional fora;
 - benefit–cost analyses of rights-based social protection for food and nutritional security (including assessments of South Asian practices of employment guarantees and cash transfers) undertaken;
 - enhanced capacities by governments to incorporate gender and social equity issues in agriculture, food security and rural development policies, programmes and projects;
 - incorporation of rural gender equity into country and regional joint programmes on food security, agriculture and rural development;
 - collaboration strengthened with regional organizations and capacity building programmes regarding trade facilitation, harmonization of food safety standards and biosecurity practices;
 - consultative meetings convened among concerned stakeholder groupings on current and emerging issues of food and nutritional insecurity;

- periodic reports and information bulletins on the state of regional food and nutritional security distributed;
- early warning alerts of threats to food and agriculture issued; country capacities for agricultural survey and censuses, food balance sheets and CountrySTAT strengthened; and
- stakeholder access to FAO publications, databases, resources and expertise improved.

Regional Priority B. Fostering agricultural production and rural development

Objectives of Strategic Priority Area B

- increase output and productivity of agriculture, focusing on major food crops such as rice, wheat and maize as well as livestock;
- support the development of agriculture, agri-business and agro-industries particularly for small farmers and entrepreneurs, enabling them to respond to market opportunities, build resilience and attract investment;
- raise rural living standards through increased investment in infrastructure, human resources and services for employment and income generation; and
- improve market access for small-scale producers and promote inclusive growth.

64. A supporting pillar for reducing food and nutritional insecurity is fostering the agricultural and rural sector's contribution to growth and equity. As small and marginal producers and landless farm workers have only labour as their main productive asset, promoting rural labour absorption presents a sustainable pathway to increasing agricultural productivity, improving economic access to food and reducing vulnerability. In this connection, agricultural productivity in wage goods and raw materials must improve to promote the competitiveness of commercial agriculture, labour-intensive crop production/farming systems, manufacturing, processing and other labour-using economic activities. Also, priority attention to the agricultural and rural sector will mitigate economic pressures fuelling the rural-urban migration that underlies worsening urban food insecurity.

65. The region has been leading the "livestock revolution", and the livestock sector has emerged as one of the most dynamic components of the regional food economy. Consumption and production growth of dairy and meat products have markedly outpaced that of cereals and this trend is expected to continue in the foreseeable future. The sector has tremendous potential for supporting the goals of poverty reduction and food and nutritional security. But it requires a supporting policy environment to enhance the ability of small livestock producers to access expanding markets. At the same time, there are serious concerns regarding environmental and public health implications of this growth. It requires governance and regulation of the sector in a manner that makes rapid growth environmentally sustainable and does not threaten human health. Balancing these seemingly conflicting goals will be at the core of the regional agenda in the livestock subsector.

66. Developing competitive small-scale agribusiness and rural agro-industry, including local bio-energy production, is a largely national prerogative. Its regional dimension relates to harmonizing standards and regulations that facilitate subregional trade and expand markets for products based on comparative advantage and building capacities to comply with standards for quality and safety.

67. In value terms, fishery products are the most heavily traded natural food commodity in the world, and trade issues involving fish are becoming increasingly important in the Region. International fish trade can be challenging with respect to increasingly rigorous requirements on quality and safety of fish and, now, the need to demonstrate that products are not derived from illegal and proscribed fishing operations.

68. New institutional arrangements, including a focus on private sector involvement are similarly relevant to inclusive agribusiness development to increase rural employment, offer income opportunities and supply food to urban centres at competitive prices. Coordinated market policies and incentive frameworks can accelerate technology and investment inflows to subregions. It can also deter predatory strategies by large modern value chains with respect to linking small producers to the mainstream of the supermarket revolution. Such crucial areas need collective action and attention at subregional level so as to improve labour opportunities and enhance rural labour absorption in support of improved food security and nutrition.

Issues and Challenges

69. Agriculture contributes significantly to economic growth in normal times and serves as an employer of last resort in times of crisis. Its resilience to external economic shocks derives from the fact that demand for food is relatively insensitive to changing economic conditions. A main challenge is to intensify such multiple roles as a sustainable approach to alleviating the hunger of the food insecure and vulnerable, many of whom are found in the agricultural and rural sector. Ensuring that agriculture plays its proper role as an engine of growth and poverty alleviation requires an enabling policy environment, provision of public goods such as supporting infrastructure and services, comprehensive and collective efforts to improve input systems and investments in agricultural research and development (R&D) and human resource capacities. Very often these essential conditions are not present, and this slows progress towards the attainment of food security and production goals.

70. Stagnation of crop productivity, as reflected in yield plateaus in some parts of the region, is a critical constraint to meeting rapidly rising demand. Therefore, one of the priority areas in the strategy should focus on avenues for boosting productivity in major cereal crops. This is an essential prerequisite for increasing food production and food security in the region.

71. Food and agricultural systems in Asia and the Pacific region are increasingly market-driven. Rapid globalization and market liberalization usher in both opportunities and challenges, with far-reaching implications for food security and economic and social development. Exploiting the potential created by expanding food trade requires building dynamic competitiveness and investments in improving agricultural productivity, rural support services and human resource development. Given the highly regulated nature of food trade, it is also crucial to recognize the importance of public investments in rural infrastructure, agro-industry and in food safety and quality assurance programmes.

72. Moving agriculture forward in this environment requires a good understanding of the underlying policy and economic environment, especially when externalities and transboundary issues are involved. Examples include standards and regulatory frameworks, trade and tariff policies and food safety. Country policies and regulations may need to be harmonized in a regional setting in order to promote consistent socio-economic and trade development and to prevent the spread of plant and animal diseases. The effects of these policies on small producers, landless workers and the vulnerable poor must be given special attention.

73. Frequent trade notifications of rejected food products because of chemical, microbiological and physical contamination seriously constrain food trade expansion in the region. Compliance with sanitary and phytosanitary (SPS) measures, particularly by small producers, is hampered by limited resources and restricted capacity to: assess SPS requirements in export markets, participate in dispute settlements and demonstrate equivalence of domestic SPS

measures with those implemented by trading partners. More stringent private but *de facto* food safety standards can also pose a challenge for small and marginal producers.

74. The institutional and regulatory framework for safety in the food chain is not always well-defined in many parts of Asia and the Pacific region. Regulatory systems for risk-based food safety regulations and integrated biosecurity approaches to risk management need modernization. Regional collaboration on harmonizing food safety and biosecurity regulations and standards may be explored within the existing framework of REIOs, including the Association of South East Asian Nations (ASEAN) initiatives on the Task Force on Codex (ATFC), Expert Working Group on Harmonization of Maximum Residue Limits, Asian Food Safety Network (AFSN), Expert Group on Food Safety (AEGFS) and ASEAN Good Agricultural Practice (ASEAN-GAP). Agreement must be promoted with respect to sound policy and harmonized regulatory frameworks to facilitate intraregional trade and expand employment and income opportunities in the food and agriculture sector.

75. Competitive small and medium enterprises (SME) in agribusiness, agro-industry and the forest industry, contract tree growing, out-grower schemes and other value adding activities can create rural employment and stimulate demand for farm produce with multiplier effects through their backward and forward linkages. Value-adding SMEs raise rural labour absorption in non-farm activities such as handling, packaging, processing, transporting and marketing of food and agricultural produce. Labour-using enterprise growth is itself pro-poor since improving labour earnings helps mitigate food insecurity and poverty. The main challenge is finding inclusive ways of linking competitive SMEs and commercial farms to modern supply chains and agro-industries.

Primary tools

76. The primary tools for priority area B are:

- collaboration with REIOs and groups of countries on policy, research and development, biodiversity conservation, biomass utilization and international trade;
- increased use of new technologies to accelerate the process of varietal development for sustained growth in rice and wheat productivity and production;
- capacity building in participatory, location-specific and climate change-sensitive plant breeding approach and technology;
- technical support to members and subregions in agricultural and rural development strategy formulation and project preparation focusing on the needs of small farmers and women;
- advocacy to promote rural investment aimed at creating a competitive agricultural sector responsive to market opportunities, resilient to weather and other risks and attractive to private investment and entrepreneurship;
- policy and technical assistance to subregions in the formulation, adoption and implementation of biosecurity standards throughout the supply chain and in facilitating collaboration on food safety and quality issues;
- capacity building and technical assistance to subregions in strengthening food control systems to comply with international traceability requirements and standards for food safety;
- support to countries in adopting agribusiness and agro-industry strategies that facilitate public-private sector collaboration on market infrastructure development;
- rationalize government role and responsibilities in contract intermediation, conflict resolution and promotion of responsible business practices;
- promote actions to improve financial services and risk management tools available to agribusiness and agro-enterprises and develop equitable, efficient and sustainable linkages between private business and small producers;
- develop human resources and capacity of organizations to support small farmer clusters and associations, agricultural SMEs and commercial farms especially in piloting and appraising technologies and value-chain innovations;

- policy assistance to subregions on development of appropriate enabling environments for rural labour-using SME in agribusiness and agro-industry, linking small stakeholders with modern value chains and developing competitive agricultural markets;
- technical and policy assistance to regional member countries to promote poverty-alleviating livestock sector growth while minimizing its adverse impact on the environment and public health;
- promotion of knowledge exchange at the regional level to facilitate learning from institutional innovations across countries in empowering smallholder livestock producers; and
- support to regional organizations and the field programme to improve practices and build capacity in all areas of fish utilization, marketing and trade.

Results

77. The results of priority area B are:

- policy prescriptions elaborated and rationalized by subregions to improve the agricultural productivity of small farmers and the competitiveness of SMEs in agribusiness and agro-industry;
- research facilities at national level enhanced in order to make them more relevant, prioritized, effective, client oriented and location-specific;
- capacity of public extension services developed to improve non-crop farm activities such as livestock husbandry and provide marketing advice in support of value chain development;
- food and sustainable agriculture and rural development investment strategies and policies included in national and regional development plans and frameworks;
- lessons on linking small producers and landless workers with modern value chains and the mainstream of economic development identified and extended;
- capacity building programmes formulated on trade competitiveness to meet stringent food safety and quality standards in destination markets;
- increased regional capacity to deal with new food hazards and improved compliance with food safety standards and traceability;
- collaborative arrangements set up for sharing of research facilities, knowledge or materials in support of sustainable food and agriculture production, intensification and diversification;
- mainstreaming of livestock policies within the agricultural sector and enhanced performance of this sub-sector in contributing to food and nutritional security and poverty alleviation; and
- responsible aquaculture and fisheries development promoted in Asia-Pacific Fishery Commission (APFIC) member countries with particular focus on the small-scale sector and response to quality related restrictions to trade improved.

Regional Priority C. Enhancing equitable, productive and sustainable natural resource management and utilization

Objectives of Strategic Priority Area C

- reduce the degradation of natural resources and reach a sustainable level of use;
- develop a broad based consensus on the use and management of natural resources to reduce the threat of exploitation in the future;
- increase water productivity and improve management of groundwater and surface water irrigation systems; and
- conserve genetic resources and biodiversity.

78. Halving the number of people in the region who are undernourished by 2015 and eliminating undernutrition at the earliest possible date will require enhancing equitable, productive and sustainable natural resource management and utilization, especially given Asia's high population density. Sustaining food and agricultural production to meet expanding demand can be realized only by protecting the integrity and productivity of the natural resource base while managing constraints and risks.

79. The FAO Code of Conduct for Responsible Fisheries (CCRF) provides a framework for national and regional responsible practice and forms the core of FAO's work in the fisheries sector. Implementation of such an ambitious and comprehensive framework requires capacity building and technical assistance in a wide array of areas, including trade, the environment, livelihoods, socio-economics and policy. FAO regional fisheries bodies can provide an effective vehicle or platform for meeting this range of needs. They bring a regional perspective and relevance to some of these international challenges as well as helping integrate the needs of the region into FAO's global programme.

80. Growing appreciation of sustainable use and management of natural resources and their strategic contribution to meeting present and future demand in the region is an encouraging trend. Natural resource management, particularly of forests, has been recognized as the key challenge for sustainable development in many mountainous areas of South Asia. Forests serve rural communities in terms of firewood, timber, non-timber forest products (e.g. foodstuffs, medicinal plants, industrial raw materials and other marketable products) and an array of environmental services. Coastal forests safeguard a vast acreage of productive agricultural lands and aquaculture ponds that are threatened regularly by cyclonic storms, saline water intrusion, predation and soil erosion, all of which have adverse consequences for the livelihoods of the poor.

81. A key thrust of FAO's work is to strive to find the optimal balance between natural resource utilization to adequately meet current needs (including food security and nutrition) while retaining the capacity to service future demand. In addition to managing natural resources efficiently, – in particular land and water – externalities must be understood and appropriate user or service payment systems established for optimum utilization and preservation of natural resources and biodiversity. There are also transboundary issues with respect to natural resource utilization, degradation and pollution or institutional governance. Analytical assessments, policy and technical support and provision of a neutral forum to enhance collaboration comprise significant components of envisaged RAP initiatives.

Issues and challenges

82. With continuous population growth, economic development, industrialization, urbanization, growing trade, rising demand for food, raw materials energy, conflicts over the use of natural resources is on the increase. Intensified use of natural resources has resulted in land and water degradation. This presents a major threat to food security and socio-economic development. Very low quantities of water and land resources per capita mean that irrigation and water management are key priorities.

83. Prudent use of natural resources requires close monitoring and assessment of the status of land and water resources, projection of future resource availability and demand and strengthened cooperation at regional, subregional and national levels. Key tools needed to achieve these aims include systems for land planning and sustainable management, comprehensive frameworks for coping with water scarcity, methodologies for improving water productivity and modernizing medium and large irrigation systems and strategies for managing smallholder farming and rural livelihoods.

84. The pursuit of sustainable food security and nutrition must also overcome fisheries and forestry resource degradation. Asia and the Pacific region is the leading region for capture fisheries and aquaculture. Indeed, FAO estimates that Asia accounts for 87 percent of the total number of persons engaged in fisheries and aquaculture production globally. The region's forests

and trees are increasingly appreciated in view of emerging issues of climate change, bio-energy demand, water scarcity and natural disasters. Furthermore, forests make a key contribution to poverty reduction and help to mitigate the impact of tsunamis, cyclones, typhoons and storm surges. Improved awareness and adoption of international environmental agreements, safety standards, codes of practice and sustainability indicators can provide the needed impetus for policy, legal and institutional reforms in natural resource and biodiversity management and utilization.

85. Severe stress on forest and aquatic resources persists, exacerbated by a large and growing population, widespread poverty, ineffective governance, ambiguous property rights, weak institutions and inappropriate policies. Deforestation, inefficient irrigation and aquaculture water-use and unregulated industrial growth continue to contribute to land, soil and water degradation. Soil erosion and nutrient mining have reduced the agricultural potential of vast areas. Growth in forest plantations fail to keep up with loss of natural forests resulting from illegal logging, over-harvesting and expansion of cash cropping. In Southeast Asia, the burning of residual forests for agriculture (after quality timber extraction) and accidental fires in peat land have caused losses in terms of usable wood availability, biodiversity, air quality and tourism.

86. It has been estimated that Asia and the Pacific region's seas are among the most intensively fished waters in the world. Part of this exploitation can be handled by a highly resilient and productive ecosystem, but signs of overfishing are becoming more and more apparent in the region. The considerable mobility of regional fishing fleets has so far kept production high, though unexploited areas are becoming fewer and fewer. These risks to aquatic resources could be aggravated by external threats such as the impact of climate change, pollution leading to the deterioration of marine and inland aquatic environments and their ecosystems and increasing coastal area activities including tourism and industrial development.

87. Recent years have seen some gains from afforestation, rehabilitation and protection of forest areas and enhancement of fish stocks. These gains must be sustained with shifts in the mindset and objectives of the line agencies involved, leading to increased emphasis on environmental concerns and services. An ecosystem approach supported by incentive-compatible payments for environmental services as well as comprehensive sector, user and other stakeholder benefit-cost accounting is essential for natural resource management. In this way, equitable and sustainable use of resources can be appropriately encouraged using market-based instruments.

Primary tools

88. The primary tools of priority area C are:
- capacity building and technical guidance on sustainable land management;
 - gender mainstreaming in tackling water scarcity issues and promoting equitable access to land and water resources;
 - capacity building and technical assistance in forestry and protected area management;
 - collaboration with existing programmes as well as development of new initiatives to promote best practice in agricultural water management and increase water productivity and water security;
 - collaboration with regional centres of excellence on appropriate water management technologies and mechanization for effective on-farm water management;
 - strengthening of national capacity to prepare investment programmes that modernize irrigation systems and improve irrigation performance using key FAO products (e.g. MASSCOTE, AQUACROP);
 - provision of technical support services and policy assistance to promote productivity-raising agricultural water management;
 - technical and policy guidance in support of sustainable livestock production systems and improved management and recycling of animal waste (especially as sources of renewable energy and fertilizers);

- deployment of a comprehensive framework to account for agriculture's water-use and related investments in institutional and infrastructure assets including water audit, irrigation water investment framework, monitoring of investments and multisectoral strategic planning in the water sector;
- regional collaboration on enhancing governance at basin and associated ecosystem levels, cooperation on water scarcity issues, accountability in managing transboundary water and institutional frameworks for river basin organizations and networks;
- identification and dissemination of effective small-scale water management interventions appropriate for specific agro-ecosystems;
- advocacy and policy assistance on incentive-compatible mechanisms for service payments for natural resource management and protection;
- regional capacity building and technical support on adoption of natural resource policies based on sound understanding of externalities, ecological and social benefits and costs of resource preservation, degradation and rehabilitation;
- advocacy and support to adoption of regulatory frameworks and management policies for sustainable fisheries;
- technical assistance to subregions on sustainable aquaculture development, best aquaculture production practices and increased private sector investment;
- technical advice and capacity building for fisheries assessment and management in the framework of the ecosystem approach to fisheries and aquaculture, taking special account of the needs of small-scale fisheries and livelihood requirements;
- review of resources and trends in fisheries and aquaculture in the region, including the status of implementation of the CCRF; and
- servicing the secretariat of APFIC and the Asia-Pacific Forestry Commission as platforms to debate critical issues.

Results

89. The results of priority area C are:
- regional assessment and monitoring of land use, environmental services and the sustainability of agro-ecosystems undertaken;
 - enhanced capacity in land degradation assessment and sustainable land management and planning;
 - countries address water scarcity in agriculture and strengthen their capacities to improve water productivity of agricultural systems at national and river-basin levels, including transboundary water systems;
 - tools to estimate yield response of various crops to water, and criteria to improve crop water productivity developed and mainstreamed;
 - methodologies for auditing performance and designing productivity improvements in medium and large irrigated systems extended;
 - improved agricultural water management on small farms;
 - adoption and use of responsible and sustainable fishing practices and reduced incidence of unregulated and illegal fishing;
 - sustainable aquaculture production with best practices and active private sector investment expanded, particularly in the Pacific subregion;
 - policy focus on the adoption of effective participatory approaches to forest and biodiversity protection promoted;
 - technical assistance and advice provided to subregions on sustainable participatory management of forests, rangelands and pastures and on the rehabilitation of degraded ecosystems;
 - strategy and technical options for improved protection of terrestrial and aquatic genetic resources and biodiversity formulated and disseminated;

- improved fishery and aquaculture policy leading to better implementation of the CCRF with special attention to small-scale fisheries, responsible aquaculture development, overcapacity and illegal, unreported and unregulated (IUU) fishing;
- improved governance in the APFIC focal regions leading to greater benefits from capture fisheries and aquaculture; and
- ecosystem-based regional fishery management promoted.

Regional Priority D. Improving capacity to respond to food and agricultural threats and emergencies

Objectives of Strategic Priority Area D

- facilitate the shift in emphasis from emergency response with short-term relief measures towards broad-based and concerted disaster risk reduction, preparedness and prevention programmes, with emergency response followed up by LRRD in order to mitigate the long-term impact of disasters on food security and balanced nutrition; and
- enhance subregional capacity for disaster and risk reduction, preparedness for natural disasters and effective emergency response which links relief and rehabilitation to longer-term sustainable development.

90. As mentioned earlier, Asia and the Pacific region is prone to a wide range of natural disasters. Transitory shocks cause chronic poverty and hunger, particularly among those with limited coping capacity. Improving capacity to prevent, manage and respond to food and agricultural threats and emergencies will help stabilize food availability and access. This must become an integral component of hunger and poverty alleviation efforts in the region. Emergency response is important, but merely responding to disasters is not adequate. In disaster-prone areas there must also be strategies for disaster risk and threat reduction and prevention, and strategies for post-disaster rehabilitation of affected populations and their livelihoods. Modern ICT applications can support these tasks with intelligent information and data bases on disaster vulnerability and epidemiology in subregions. In a nutshell, in disaster affected areas there is a need to follow this sequence: (a) reduce the risk of disaster; (b) do a better job of emergency response when disasters nevertheless occur; and (c) adopt the LRRD approach to rebuilding people's livelihoods in the post-disaster phase (sometimes known informally as "build back better"). Improved resilience and preparedness after the calamity is indicative of progress in this endeavor.

Issues and challenges

91. Managing the threats and risks from disasters presents a strategic food and nutritional security and livelihood challenge.⁹ Transitory shocks often add vulnerable people to the ranks of the poor and hungry. Those with limited ability to cope with calamities often resort to selling their productive assets and withdrawing their children from school, leading to the intergenerational continuation of the hunger and poverty trap.

92. High population densities and the existence of a large number of poor people make it difficult to improve preparedness and mitigation measures for food and agricultural threats and emergencies. The same factors cause degradation of land, forest, water and aquatic resources, increasing the risks and likelihood of natural disasters. Threats from transboundary animal

⁹ Absence of direct reference to human casualty and loss of life is not meant to trivialize such tragic results of disasters and emergencies, but reflects the competence of RAP.

diseases (TAD) come with expanding trade in livestock, aquatic products, meat and other livestock products. Urgent collaboration on TAD prevention and control is needed, especially in the areas of epidemiology and economic research, surveillance for early warning, emergency preparedness and rapid response to disease outbreaks. Access to reference laboratories of accepted international standard is crucial in times of disease-related emergencies.

93. Reducing vulnerability, increasing resilience and improving the capacity to recover from disasters in many ways requires the same strategies and measures that are necessary for sustained agricultural and rural development. Examples of such strategies include integrating climate change adaptation and mitigation strategies into natural resources management and use of policy measures that reduce food price instability. Application of modern technologies of remote sensing and GIS and ICT are also relevant and should be harnessed to build information and data bases for mapping disaster-prone or vulnerable areas.

94. Practical lessons and best practice for disaster risk reduction need to be identified and disseminated. Internally displaced persons and communities in post conflict areas of South and Southeast Asia require assistance in resettlement and rehabilitation. Such assistance must assure compatibility and consistency of emergency measures with long-term sustainable development and re-integration of ex-combatants. Technologies and other innovations that help build resilience to natural disasters in subregions should find a place in development plans and food security and nutrition programmes. Improved responses to food and agriculture threats and emergencies must be supported by effective surveillance systems for early warning, rapid restoration of agricultural livelihood processes and the LRRD approach.

Primary tools

95. The primary tools for priority area D are:
- strengthen management information systems and communications in subregions for strategic planning and implementation of disaster and risk reduction and management;
 - collaboration and partnership on regional mechanisms for effective communication and interagency coordination on prevention and control of transboundary animal and zoonotic diseases based on the EMPRES platform;
 - advocacy and technical assistance to subregions and REIOs in developing enhanced surveillance and response plans to reduce and warn against animal and other disease outbreaks, disasters and emergencies;
 - technical assistance in strengthening analytical capacity in epidemiology and economic research as well as in establishing regional reference laboratories and diagnostic centres of international standard;
 - assessment of approaches and best practices in crop, aquaculture and fisheries insurance;
 - assessment of approaches and best practices in resettlement and rehabilitation of internally displaced persons and communities in post-conflict areas, including linking emergency and sustainable development measures;
 - advocacy for shifting the mindset and emphasis from short-term emergency relief to long-term disaster risk reduction and management and LRRD; and
 - regional networking and capacity building assistance on emergency relief work which is consistent with long-term post-disaster recovery and rehabilitation programmes.

Results

96. The results of priority area D are:
- enhanced capacity to carry out epidemiological studies and economic research;
 - effective TAD prevention and control regional protocols formulated adopted and implemented;
 - regional collaboration and networking mechanisms on sharing of reference laboratories established and implemented;

- technical and capacity building support provided at country and regional levels on biosecurity and food control systems in line with international requirements;
- evidence of increased rural investments and expenditures on improving productivity on small farms and making them resilient to production risks;
- practical technologies and innovations for disaster risk reduction identified, widely adopted and integrated with food and nutritional security strategies;
- practical approaches on resettlement, rehabilitation for internally displaced persons and communities in post-conflict areas identified and adopted;
- plans formulated and systems functioning for early warning and response to disease outbreaks, disasters or emergencies;
- disaster and emergency-prone areas mapped, vulnerable communities alerted and social and economic preparedness strengthened;
- accelerated restoration of livelihoods after disasters and emergencies;
- affected communities participate through an LRRD approach while emergency relief operations continue; and
- improved safety nets for small farmers, livestock owners and fishermen.

Regional Priority E. Coping with the impact of climate change on agriculture and food and nutritional security

Objectives of Strategic Priority Area E

- identify innovative technologies and appropriate practices in subregions for coping with the adverse impacts of climate change on the agricultural sector with a view to protecting and consolidating progress in food security and nutrition; and
- reduce the contribution of agriculture, including livestock and aquaculture and deforestation, to GHG emissions and integrate climate change adaptation and mitigation into strategies for agriculture and rural development.

97. Reducing the impact of climate change on agriculture and the impact of both climate change and biofuels on food and nutritional security is a clear strategic priority for the Asia and the Pacific region. Global mean surface temperature is projected to rise by at least 1.8 degrees Celsius by 2100. Along with an expected increase in the frequency of severe climatic events, this will have profound implications for agricultural production.

98. In terms of demand for agricultural products, biofuel seems likely to divert increasing quantities of cereals and oilseeds away from food-use. These developments in supply and demand have the potential to increase food prices substantially, thereby threatening the poor's access to food. Under certain circumstances biofuels can reduce GHG emissions and thus be part of the solution to climate change, but they also put upward pressure on agricultural prices. In this regard, an informed balanced approach has to be advocated so as not to put at risk food insecure and vulnerable groups.

99. Practical and innovative adaptation and mitigation measures to make farming more resilient to climate change should command attention in development plans, strategies for disaster risk reduction and preparedness and mobilization of development assistance. Agriculture has to reduce its own contribution to global warming and play an expanding role in carbon sequestration as well as become more resilient through adaptation to climate change. This is to reduce threats to food security by the increasing frequency of climatic shocks.

Issues and challenges

100. The agriculture and rural sector has ample scope to contribute more to mitigating climate change and to reduce its GHG emissions. FAO needs to strengthen its contribution to policy dialogues, technical support, cooperation and networking on climate change adaptation and mitigation to effectively respond to increasing calls from development partners, regional and subregional organizations and member countries in the region.

101. Climate change impacts the entire agricultural sector through shifts in agro-ecological zones, droughts, desertification, variations in hydrological cycles, rising sea levels and saline water intrusion. These developments could radically alter existing cropping patterns in the region, including aquaculture and livestock and threaten *in situ* agricultural biodiversity. Increased severity and variability in weather patterns, rising sea levels and probably storm surges would greatly threaten coastal fisheries and aquaculture and their contributions to household food security and national economies, especially in low-lying islands and in the large delta areas. Those who are already food insecure and lack coping capacity are the most vulnerable. In South Asia, climate change is already having real impact on millions, with emergencies because of cyclones, violent winds and drought cutting deeply into resources that should fund development.

102. The high-level attention generated lately on the urgency of climate change and its development impact offers opportunities for RAP to expand and intensify its work on mitigation through the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD). In this work, it can also carve out a niche with respect to practical measures to reduce emissions from agricultural lands.

103. A number of recent studies have brought to the fore the significant impact of livestock on global GHG emissions and climate change. There exist technical options to mitigate these emissions, but there are a number of barriers that need to be overcome before these options become functional and effective. Some of them relate to weak or non-existent incentive systems and institutional and policy mechanisms for monitoring and verification. Lowering these barriers requires long term investment in infrastructure, information systems, financing mechanisms, R&D and human capacity for achieving the dual goals of food security and reduction of GHG emissions.

Primary tools

104. The primary tools of priority area E are:

- formulate and mainstream regional, subregional and national level policies and action plans to reduce agricultural GHG emissions and help the agricultural and rural sector adapt to climate change and contribute more to mitigating its effects;
- advocate that food security and nutrition issues be placed onto the climate-change policy agenda for ensuring efficient and pro-poor responses to emerging risks;
- advocate mainstreaming of the role of trees and forests in climate change adaptation and mitigation measures;
- technical assistance and capacity building support to REIOs and subregions on suitable practical measures and best practices (including drought resistant varieties of crops, good agricultural practices, improved irrigation, land and water management and sustainable management of forests, fisheries and aquaculture) to reduce GHG emissions and encourage investment in cost-effective adaptation measures;
- case studies in selected major food production areas on the impact of climate change and its implications for food production and agricultural water use;
- dissemination of suitable technical options and practices on climate change adaptation and mitigation in different agriculture sub-sectors in the region;
- technical assistance in developing models and methodologies to assess the impact of bioenergy production systems on food security and nutrition;

- participation in policy and technology knowledge networks to improve understanding of the linkages between animal agriculture and climate change and dissemination of incentive-based mitigation measures;
- technical assistance in assessment of bioenergy policy frameworks to integrate food security and nutrition concerns into bioenergy strategies and action plans;
- provision of technical advice on coastal livelihoods improvement and microfinance programmes for enhanced stakeholder participation in adaptation to climate change; and
- support to member countries and regional fishery bodies (RFBs) in strengthening their capacity for integrated monitoring, control and surveillance of climate change impact on rural livelihoods, food security and balanced nutrition.

Results

105. The results of priority area E are:

- strengthened FAO contribution to policy dialogues and technical cooperation at regional, subregional and national levels on climate change adaptation and mitigation in agriculture, forestry and fisheries;
- exchange of information on research and development of salt-, drought- and flood-tolerant varieties of crops for climate change adaptation and mitigation promoted;
- political will and commitment to address deforestation and land, water and forest degradation mobilized and confirmed with increased funding for climate change adaptation and mitigation in forestry;
- agricultural strategies with strong potential for climate change adaptation and mitigation incorporating sustainable forest, fisheries and crop and livestock husbandry management practices selected and promoted;
- improved crop, aquaculture and livestock production systems and practices contributing to GHG reduction identified and promoted;
- better understanding and awareness of the impact of climate change on livestock production systems in Asia and the Pacific region and adoption of environment-friendly pro-poor livestock sector policies;
- practical technologies and innovations on climate change adaptation and disaster risk reduction identified and widely adopted; and
- fishing communities have improved livelihood resilience to problems arising from climate change.

3. REGIONAL PRIORITY RESULTS AND CORE FUNCTIONS

3.1 Regional priority results

106. Within the above regional priorities, RAP will contribute through its Unit Results (which it is responsible for achieving) to FAO's Organizational Results and Strategic Objectives, as mapped in Annex 2 and elaborated in document APRC/10/8 *Implementation of the Programme of work and budget 2010-11 and Areas of Priority Action for the Region in the Following biennium*. The following paragraphs ascertain the application of the FAO Core Functions – the means of action – in relation to the generic regional priority results.

107. The Unit Results reflect the technical disciplines and strength as well as country knowledge in RAP that underpins all of its programmes. RAP will continue such a country focus and assistance under mechanisms, such as NMTPFs, United Nations Development Assistance Framework (UNDAF) and poverty reduction strategy (PRS), as well as operational and technical backstopping through project and country task forces.

108. The regional thrusts of RAP's work will integrate relevant Unit Results into comprehensive, multidisciplinary, state-of-the-art analytical reviews and assessments of food and

nutritional security challenges by specific subregions e.g. those conducted by ASEAN, South Asian Association for Regional Cooperation (SAARC), Pacific Island Forum (PIF) or other relevant subgroupings of countries. It will prepare regular assessments of regional (cross border) dimensions of food insecurity, anatomy of causes and constraints and prognosis and prospects by categories or groupings of Asia-Pacific countries. Common constraints will be analyzed and necessary actions articulated, including establishment of the enabling environment and requisite investments in agricultural R&D, rural support services and human resources. The assessments will recommend practical strategies and an indicative agenda of actions to relieve constraints standing in the way of halving hunger incidence by 2015. The focus here is on those that lend themselves to common initiatives and collaboration within subregions.¹⁰

109. The regular assessments will serve as a point of reference for tracking Asia-Pacific food and nutritional security over the coming decade (2010–2019). It will monitor emerging constraints and necessary adjustments in common initiatives as situations evolve. It will also drive the interdisciplinary approach in RAP. Integration of Unit Results gives operational content and specificity to the Regional Priority Framework as the latter ensures coherent and responsive delivery of RAP products and services.

3.2 Core functions

110. RAP will deliver its products and services to achieve results using FAO's core functions as enumerated below.

a) Providing perspectives, trend monitoring and assessments

111. This covers:

- differentiated analysis of food insecurity and ways to cope with external shocks and the impact of climate change;
- options on rights-based social protection and safety nets for small producers, landless rural workers and circumstance-based food insecure people;
- progress towards WFS and MDG targets in the agriculture and rural sector; and
- regional state of food and agriculture, selected indicators and newsletters.

b) Strengthening information, knowledge and statistics

112. Strengthening information and knowledge of agriculture and food security will be carried out through:

- publication of technical manuals, training materials and publications on various subjects in the course of capacity building and providing technical support;
- wide dissemination of findings of participatory research and development on salt-tolerant and drought- and flood-resistant crops for climate change adaptation and mitigation;
- distribution of information notes, paper abstracts or media briefs at regional meetings and conferences on the scope for sustainable agriculture, forestry and fisheries development and preservation of natural resources and biodiversity;
- discussion of concept papers and technical papers in policy meetings of concerned stakeholder groups;
- mapping of disaster-prone areas and vulnerable communities using remote sensing and GIS and sharing such information through modern ICT to provide early warning of impending food shortages and disasters; and
- undertaking periodic regional assessments based on FAOSTAT, CountrySTAT and food balance sheet (FBS) and sharing such information on a regular basis.

¹⁰ Country-specific programmes are covered under UNDAF, NMTPFs, PRSP and other related instruments.

c) Developing international instruments

113. RAP engages in developing instruments such as:

- common TAD regional protocols with supporting legislation and quarantine measures;
- regulatory frameworks for responsible and sustainable fisheries and forestry harvesting practices and international codes of conduct on distribution and use of pesticides; and
- harmonized SPS regulations and food safety and quality standards.

d) Policy assistance and advice to subregions

114. Thematic areas include:

- pro-poor enabling environments, improving governance and consistent support to food security and related priority thematic areas;
- design and implementation of incentive-compatible policies and mechanisms for environmental services and protection and for sustainable natural resources management;
- enabling environment for off-farm rural enterprises through competitive small-scale agribusiness and agro-industry development for improved labour opportunities; and
- trade facilitation, food safety standards and biosafety practices and practical ways to link small stakeholders with modern value chains.

e) Capacity building and technical support

115. This includes:

- methodology, applications and best practices on agriculture and rural development, sustainable resource use and management, safety and quality of fresh and processed produce marketing chains, traceability in the food marketing chain, inclusive agribusiness and value chain development, climate change adaptation and mitigation measures, as well as on statistics and information and communications technology;
- analysis of externalities and formulation of incentive-compatible policies and supporting programmes to improve governance and the enabling environment for rural development, sustainable resource management and utilization, disaster reduction and coping with the impacts of climate change;
- regional workshops, roundtables and consultations on common challenges or issues to develop consensus or otherwise share information on the formulation of collective actions focusing on food and nutritional insecurity solutions; and
- neutral fora for discussion of issues of international governance, e.g. biosecurity (food safety, biodiversity and environmental sustainability), climate change, SPS and trade related matters, transboundary animal and plant pests and diseases, genetic resources and biotechnology, bioenergy, toxic chemicals, as well as trade in wildlife products.

f) Advocacy and communications

116. Specific areas include:

- improved governance, enabling environments and supporting resources for food security including gender mainstreaming in tackling crucial aspects of resource scarcity and equitable access;
- increased investment in agricultural research and development, capacity building and support services;
- regulatory framework and management policies for sustainable use of natural resources, IPM and pesticide use, biosecurity and international food trade, monitoring, control and surveillance;
- shifting the mindset from emergency response towards building a resilient agricultural sector from disaster risk and threat reduction and prevention to LRRD;
- mainstreaming the strategic roles of the agricultural and rural sectors in climate change adaptation and mitigation; and

- consumer information, nutrition education and capacity building of local institutions.

g) Building partnerships and alliances

117. RAP's core functional area here is in building partnerships and alliances with REIOs, regional commissions, South-South cooperation partners, development partners, stakeholder communities, international non-governmental and civil society organizations (INGOs/ICSOs), with the purpose of:

- creating policy dialogues and sharing of experiences, expertise, infrastructure and facilities;
- promoting appropriate and affordable water management technologies and mechanization for effective on-farm water management;
- enhancing governance at basin and other ecosystem levels on transboundary water and river basin concerns; and
- implementing UN-REDD, agricultural water management in coping with water scarcity and FAO Codes of Conduct for Responsible Fisheries and Forestry practices (to reduce illegal, unreported, unregulated fishing and promote reduced-impact logging).

4. IMPLEMENTATION STRATEGY

118. The RPF will serve as the basis for the following purposes in line with FAO's overall result-based management and integrated corporate planning process:

- a) Prioritization of regular programme activities in the region based on regional priorities including the preparation of the regional unit results and the regional dimension of the biennial FAO Programme of Work and Budget (PWB).
- b) Contribution to the formulation and reformulation of FAO's Strategic Framework and the Medium-Term Plan (MTP) as regional inputs to the corporate planning exercise.
- c) Input to the formulation and reformulation of FAO's country priorities (NMTPF) and subregional priorities.
- d) Prioritization of the formulation, approval and implementation of regional TCP projects and regional extra-budgetary funded projects combined with relevant resource mobilization efforts.
- e) Formulation of a framework for developing partnerships with relevant stakeholders and donor community in the region.

119. FAO's corporate results based planning system and accountability framework will provide the basis for implementing the RPF under the leadership of the Assistant Director-General and Regional Representative, RAP. Multisectoral and interdisciplinary integration of RAP technical expertise is envisaged in the RPF implementation as described below.

4.1 Institutional setting

120. A new RAP structure has been put in place pursuant to the governing bodies' decisions on FAO reform, especially those in relation to:

- the implementation of the IPA on decentralization in respect to improving the efficiency of the Regional Office to serve member countries, regional economic organizations and other partners, within the overarching framework of FAO reform and decentralization;
- the call by the 29th Asia-Pacific Regional Conference to strengthen the Regional Office for Asia and the Pacific to provide the necessary resources to serve the needs of the region in a more timely and effective manner; and
- the views of the member countries during the 29th Asia-Pacific Regional Conference that a structure comprising additional subregional offices would not serve this particular region.

121. The restructuring of RAP has therefore been carried out following the general principles of FAO reform and decentralization and taking into consideration the specific wishes of the Members of Asia and the Pacific region. The principle objective of the restructuring is to enhance the multidisciplinary approach to RAP's technical work, while improving effectiveness and ensuring that the Regional Office is dynamic and efficient in responding to the changing global and regional situation – especially regarding emerging regional issues and priorities as reflected in the present document. The emphasis of the change is on both structural and functional dimensions.

122. The new structure of RAP has the following three technical thematic Regional Office Groups (ROGs), in addition to the Field Programme Group (FPG) and Administration Group (AMG):

- Agriculture and Food Systems (AFS);
- Economic, Social and Policy Assistance (ESP); and
- Natural Resources and the Environment (NRE).

123. The technical thematic groups will be multidisciplinary in nature. They will adopt a flexible management modality – flat, broadly networked and horizontally linked. The knowledge sharing, technical quality control and adherence to corporate policies will be ensured through linkages with concerned technical departments/divisions in headquarters. In addition, the technical network of each technical area will be strengthened through networking of concerned technical officers in different locations in headquarters, subregional offices and country offices within the region and outside of the region.

124. As part of their contribution to regional results in the PWB, each technical ROG will have the technical responsibility to respond efficiently to the needs of the region by assigning individuals or groups to work on country, subregional and regional requirements as and when the need arises. Meanwhile, when multidisciplinary work beyond the boundary of an ROG is required, RAP management will mobilize a cross-ROG team in response. The present RAP technical group members will contribute their technical inputs to their ROG, or related ROG(s), based on the unit results for which they are accountable for.

4.2 Mobilizing funds

125. Substantive work planning and budgeting will be carried out by ROGs and unit results will serve as budget entities to which resources (both FAO regular programme and extra-budgetary resources) will be allocated. Regional priorities will be reflected in relative budget allocations and resource mobilization. In particular, regional technical cooperation programme projects (TCP) should be coherent with the RPF while continuing to be based on country/regional institutions' requests.

126. Extra-budgetary resources including trust funds may be negotiated with donors in consultation with FAO headquarters under the Impact Focus Areas and ROGs will be encouraged to undertake vigorous development of field projects in their respective regional priorities in collaboration with client subregional organizations and countries, donors and partners.

4.3 Monitoring and evaluation

127. Intended as a living, dynamic document for monitoring and measuring progress of work and RAP contributions, the RPF is essentially a high-level summary of regional priorities in Asia and the Pacific region which have emerged from dialogues, consultations and interactions with member countries, various stakeholders and partners. It will be reviewed in line with the corporate planning, monitoring, and reporting system. The RPF will be revised every two years on the basis of assessment and evaluation of progress as well as of the recommendations of the APRC, FAO regional technical commissions and regional partner organizations.

128. A consolidated review of linkages between regional priorities and global Strategic Objectives and Organizational Results shall be carried out by RAP once every four years to

coincide with the MTP review exercise, to ensure that both Organization-wide and regional priorities are being addressed and unit results are being developed accordingly.

4.4 Technical networking

129. For effective implementation of the RPF, RAP needs to use the best technical knowledge and experience at its disposal, including the professional staff at the Regional Office, the Pacific Subregional office, the headquarters and the country offices, together with a vast network of experts and consultants. Such a networking arrangement will ensure the regional office access to FAO's knowledge base, build and complement RAP technical expertise, respond to country requests faster, communicate results to a wider audience and use resources more effectively.

130. The network is expected to help draw the advice and support it needs, in addition to technical guidance in the course of implementing their country-specific and regional programmes of work. This technical networking ensures strong and substantive links and synergies between country/subregion-specific and regional interventions on the one hand and the corporate Organizational Results on the other. Although the latter can enhance practical orientation and content as well as relevance of Organizational Results, the former can help in mobilizing and directing resources for vigorous implementation of country, subregional and regional components contributing to the Organizational Results. In effect, the functional linkage created by such networking would lead to overall improvement in the consistency, coherence and effectiveness of FAO programmes at global, regional and country levels in addressing member states' priority needs and strategic objectives under the "Delivery as One" principle. Mechanisms will also be developed to enable FAOR networks to contribute to regional multidisciplinary teams in the implementation of programmes, particularly those in their respective subregions.

131. The need for networking among stakeholders also arises from the fact that the goal of food security can be achieved only with the highest involvement of stakeholders at all levels and the best possible standards of programme and project implementation. Networking will also ensure strong and substantive links and synergies among national, regional and global programmes, particularly in an environment where very limited resources need to be utilized as efficiently as possible. The networking arrangement will also ensure greater transparency, and building close partnerships and solidarity.

4.5 Partnerships

132. Successful implementation of the RPF is dependent upon RAP being able to augment its technical capacity through internal partnerships. In addition, RAP's internal capacity to respond more effectively to members' needs will be strengthened through the multidisciplinary nature of the ROGs, covering different technical areas by pooling the technical expertise of several technical groups with complementary strengths. More streamlined technical teams and administrative arrangements will allow for rapid formation of country task forces, project task forces, multidisciplinary teams and NMTPF development teams, drawing on the best skill mix from the groups. It is vital that the strong links which exist between the technical officers in RAP and those in FAO headquarters are built upon, and individual officers' technical networks expanded through a more multidisciplinary approach.

133. In all aspects of the implementation process FAO will adopt a consultative participatory process with stakeholders in order to fully reflect the concerns of all parties. A number of external partners are important for achieving food security, and FAO will continue to interact with a diverse set of partners, including multilateral/bilateral organizations, global financial institutions, NGOs/CSOs, regional associations and the United Nations System organizations. FAO already has collaborative arrangements with regional and subregional associations such as ASEAN, SAARC and PIF. A number of successful cooperative arrangements are also in place with the United Nations System and other development partners, such as the United Nations Development Programme (UNDP), United Nations Environmental Programme (UNEP), World Health Organization (WHO), International Fund for Agricultural Development (IFAD), European Union

(EU), the World Bank and the Asian Development Bank (ADB). In addition, FAO has developed strong links with intergovernmental organizations such as the Asia Pacific Association of Agricultural Research Institutions (APAARI), Asia-Pacific Rural and Agricultural Credit Association (APARCA), Agricultural and Food Marketing Association for Asia and the Pacific (AFMA) and donors and other development partners.

134. The Regional Thematic Working Group (RTWG) on Poverty and Hunger, which comprises 12 UN agencies, has been expanded to include bilateral and multilateral donors, development partners and other international organizations. It is chaired by FAO with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and UNDP as co-chairs. This mechanism facilitates the effective coordination of regional partners on food security related activities.

135. The private sector is envisaged to play a critical role in agriculture, including investment and business development. This is particularly important in a context where overseas development assistance for agriculture has declined sharply in recent decades whereas investment needs in the agriculture sector have increased rapidly to feed a growing world population. FAO's policy remains to support both the public and private sector investments, and create greater awareness among policy-makers for public-private sector collaboration.

ANNEX 1

Grouped by subregion, the names of regional member countries are listed below in alphabetical order:

Asia subregion

Afghanistan	Bangladesh	Bhutan	Cambodia
China	DPR Korea	India	Indonesia
Iran	Japan	Kazakhstan	Lao PDR
Malaysia	Maldives	Mongolia	Myanmar
Nepal	Pakistan	Philippines	Republic of Korea
Sri Lanka	Thailand	Timor-Leste	Uzbekistan
Viet Nam			

Pacific subregion

Australia	Cook Islands	Fiji	France
Kiribati	Marshall Islands	Micronesia	Nauru
New Zealand	Niue	Palau	Papua New Guinea
Samoa	Solomon Islands	Tonga	Tuvalu
United States of America	Vanuatu		

ANNEX 2

Mapping of Asia-Pacific regional priorities with corresponding Organizational Results (ORs) of the FAO Strategic Framework 2010-2019

Asia-Pacific Regional Priorities 2010-2019	Organizational results of the FAO Strategic Framework 2010-2019
A: Strengthening food and nutritional security	<p>D2 - Institutional, policy and legal frameworks for food safety/quality management that support an integrated food chain approach</p> <p>D3 - National/regional authorities are effectively designing and implementing programmes of food safety and quality management and control, according to international norms</p> <p>H1 - Countries and other stakeholders have strengthened capacity to formulate, implement and monitor coherent policies, strategies and programmes that address the root causes of hunger, food insecurity and malnutrition</p> <p>H2 - Member countries and other stakeholders strengthen food security governance through the implementation of the Voluntary Guidelines to Support the Progressive Realisation of the Right to Adequate Food in the Context of National Food security and a reformed Committee on World Food Security</p> <p>H3 - Strengthened capacity of member countries and other stakeholders to address specific nutrition concerns in food and agriculture</p> <p>H4 - Strengthened capacity of member countries and other stakeholders to generate, manage, analyse and access data and statistics for improved food security and better nutrition</p> <p>H5 - Member countries and other stakeholders have better access to FAO analysis and information products and services on food security, agriculture and nutrition, and strengthened own capacity to exchange knowledge</p> <p>K1 - Rural gender equality is incorporated into UN policies and joint programmes for food security, agriculture and rural development</p> <p>K2 - Governments develop enhanced capacities to incorporate gender and social equality issues in agriculture, food security and rural development programmes, projects and policies using sex-disaggregated statistics, other relevant information and resources.</p>
B : Fostering agricultural production and rural development	<p>A1 - Policies and strategies on sustainable crop production intensification and diversification at national and regional levels</p> <p>B1 - The livestock sector effectively and efficiently contributes to food security, poverty alleviation and economic development</p>

	<p>B2 - Reduced animal disease and associated human health risks</p> <p>B4 - Policy and practice for guiding the livestock sector are based on timely and reliable information</p> <p>C4 - Members and other stakeholders have benefited from increased production of fish and fish products from sustainable expansion and intensification of aquaculture</p> <p>C6 - Members and other stakeholders have achieved more responsible post-harvest utilization and trade of fisheries and aquaculture products, including more predictable and harmonized market access requirements</p> <p>D4 - Countries establish effective programmes to promote improved adherence of food producers/businesses to international recommendations on good practices in food safety and quality at all stages of the food chain, and conformity with market requirements</p> <p>G1 - Appropriate analysis, policies and services enable small producers to improve competitiveness, diversify into new enterprises, increase value addition and meet market requirements</p> <p>G2 - Rural employment creation, access to land and income diversification are integrated into agricultural and rural development policies, programmes and partnerships</p> <p>G3 - National and regional policies, regulations and institutions enhance the developmental and poverty reduction impacts of agribusiness and agro-industries</p> <p>G4 - Countries have increased awareness of, and capacity to, analyse developments in international agricultural markets, trade policies and trade rules to identify trade opportunities and to formulate appropriate and effective pro-poor trade policies and strategies</p> <p>L1 - Greater inclusion of food and sustainable agriculture and rural development investment strategies and policies into national and regional development plans and frameworks</p>
<p>C: Enhancing equitable, productive and sustainable natural resource management and utilization</p>	<p>A4 - Effective policies and enabled capacities for a better management of plant genetic resources for food and agriculture (PGRFA) including seed systems at the national and regional levels</p> <p>B3 - Better management of natural resources, including animal genetic resources, in livestock production</p> <p>C1 - Members and other stakeholders have improved formulation of policies and standards that facilitate the implementation of the Code of Conduct for Responsible Fisheries (CCRF) and other international instruments, as well as response to emerging issues</p> <p>C2 - Governance of fisheries and aquaculture has improved through the establishment or strengthening of national and regional institutions, including Regional Fisheries Bodies (RFBs)</p> <p>C3 - More effective management of marine and inland capture fisheries by FAO Members and other stakeholders has</p>

	<p>contributed to the improved state of fisheries resources, ecosystems and their sustainable use</p> <p>C5 - Operation of fisheries, including the use of vessels and fishing gear, is made safer, more technically and socio-economically efficient, environmentally-friendly and compliant with rules at all levels</p> <p>E1 - Policy and practice affecting forests and forestry are based on timely and reliable information</p> <p>E2 - Policy and practice affecting forests and forestry are reinforced by international cooperation and debate</p> <p>E3 - Institutions governing forests are strengthened and decision-making improved, including involvement of forest stakeholders in the development of forest policies and legislation, thereby enhancing an enabling environment for investment in forestry and forest industries. Forestry is better integrated into national development plans and processes, considering interfaces between forests and other land uses</p> <p>E4 - Sustainable management of forests and trees is more broadly adopted, leading to reductions in deforestation and forest degradation and increased contributions of forests and trees to improve livelihoods and to contribute to climate change mitigation and adaptation.</p> <p>E5 - Social and economic values and livelihood benefits of forests and trees are enhanced, and markets for forest products and services contribute to making forestry a more economically viable land-use option</p> <p>E6 - Environmental values of forests, trees outside forests and forestry are better realised; strategies for conservation of forest biodiversity and genetic resources, climate change mitigation and adaptation, rehabilitation of degraded lands, and water and wildlife management are effectively implemented</p> <p>F1 - Countries promoting and developing sustainable land management</p> <p>F2 - Countries address water scarcity in agriculture and strengthen their capacities to improve water productivity of agricultural systems at national and river-basin levels, including transboundary water systems</p> <p>F3 - Policies and programmes are strengthened at national, regional and international levels to ensure the conservation and sustainable use of biological diversity for food and agriculture and the equitable sharing of benefits arising from the use of genetic resources</p> <p>F6 - Improved access to, and sharing of knowledge for natural resource management</p>
D: Improved capacity to respond to threats and disasters	<p>A2 - Risks from outbreaks of transboundary plant pests and diseases are sustainably reduced at national, regional and global levels</p> <p>A3 - Risks from pesticides are sustainably reduced at national, regional and global levels</p> <p>B2 - Reduced animal disease and associated human health risks</p> <p>D3 - National/regional authorities are effectively designing and implementing programmes of food safety and quality</p>

	<p>management and control, according to international norms</p> <p>I1 – Countries' vulnerability to crisis, threats and emergencies is reduced through better preparedness and integration of risk prevention and mitigation into policies, programmes and interventions</p> <p>I2 - Countries' and partners respond more effectively to crises and emergencies with food and agriculture-related interventions</p> <p>I3 - Countries and partners have improved transition and linkages between emergency, rehabilitation and development</p>
E: Climate change, its impact on agriculture and food security and nutrition	<p>E4 - Sustainable management of forests and trees is more broadly adopted, leading to reductions in deforestation and forest degradation and increased contributions of forests and trees to improve livelihoods and to contribute to climate change mitigation and adaptation.</p> <p>E6 - Environmental values of forests, trees outside forests and forestry are better realised; strategies for conservation of forest biodiversity and genetic resources, climate change mitigation and adaptation, rehabilitation of degraded lands, and water and wildlife management are effectively implemented</p> <p>F5 - Countries have strengthened capacities to address emerging environmental challenges, such as climate change and bioenergy</p>

Note: The Organizational Results (ORs) are a means of achieving FAO's 11 Strategic Objectives (SOs) given below. Each SO has a number of underlying ORs. The above table shows the relationship of each of RAP's priorities to ORs.

- A. Sustainable intensification of crop production
- B. Increased sustainable livestock production
- C. Sustainable management and use of fisheries and aquaculture resources
- D. Improved quality and safety of foods at all stages of the food chain
- E. Sustainable management of forests and trees
- F. Sustainable management of land, water and genetic resources and improved responses to global environmental challenges affecting food and agriculture
- G. Enabling environment for markets to improve livelihood and rural development
- H. Improved food security and better nutrition
- I. Improved preparedness for and effective response to, food and agricultural threats and emergencies
- K. Gender equity in access to resources, goods, services and decision-making in the rural areas
- L. Increased and more effective public and private investment in agriculture and rural development