



COMMITTEE ON FISHERIES

SUB-COMMITTEE ON AQUACULTURE

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FAO's BLUE GROWTH INITIATIVE AND AQUACULTURE

Executive Summary

This document introduces the FAO's Blue Growth Initiative, its goals and objectives, its current status, modus operandi, and how it could assist sustainable and responsible aquaculture development worldwide, and the opportunities and challenges in its implementation.

The Sub-Committee is invited to:

- Identify opportunities and specific targets for national and regional Blue Growth activities focusing on aquaculture;
- Discuss processes and means for development and implementation of national and regional aquaculture components of Blue Growth initiatives, by governments, FAO and others;
- Decide on "Aquaculture for Blue Growth" collaboration amongst Members, in partnership with interested stakeholders.

BLUE GROWTH AND THE FISH SECTOR: THE CONTEXT OF FOOD, NUTRITION AND FISH RESOURCES FOR FUTURE

1. Globally, the demand for fish is growing due to a combination of population growth, urbanization, and increasing wealth. Fish supply-demand research suggests that aquaculture production will need to double by 2030 to meet the world's growing demand and needs. Currently, fish makes up nearly 20% of global animal source food.

2. A recent analysis by the World Bank, International Food Policy Research Institute and FAO concluded that per capita fish supplies will have the fastest increase in rich countries and in those parts of the world, such as China, where aquaculture thrives, leading to growing regional mismatches between supply and demand over the next decade and a half. Africa and Asia will face particularly significant shortfalls unless investments are made in sustainable aquaculture development.

3. Africa is unique in facing a projected decline in per capita fish consumption by 2030. Based on current trends the World Bank estimates that per capita fish supplies in sub-Saharan Africa will shrink by 1% per annum, from 6.8 kg in 2010 to 5.6 kg in 2030, by far the lowest in the world. Because fish makes up such a high proportion (32%) of animal source food in Africa, its food and nutrition security is particularly vulnerable to both supply and demand side changes.

4. On average, fish convert feed to food as efficiently as poultry, making them an attractive option for expanding the global animal protein supply. There is further scope to reduce CO2 footprints below livestock production with focus on low trophic level fish species, such as tilapia and carps, and improved feeding technologies.

5. Value of fish for human nutrition and health is increasingly confirmed in many fora. Evidence is accruing in support of potential benefits of consumption of fish for reducing coronary heart diseases and also improving child development, particularly during the critical window of the first 1000-days of pregnancy/lactation/infancy.

6. The micronutrient content of fish has been under-recognized in the literature. Many small fish species are extremely high in content of zinc, calcium, vitamin A and iron, especially when consumed with bones and viscera intact. In many developing countries, rising rates of overweight and non-communicable diseases are surpassing problems of undernutrition, even in some poor populations. Increasing availability and affordability of fish in their diet could play an important role in reversing such trends.

7. Oceans, seas, coastal areas, inland waters and wetlands and the associated sectors of the blue economy (including fisheries, aquaculture, energy, tourism, shipping, forestry, environmental conservation and restoration, etc.) are critical to global and national development, food security and the fight against hunger and poverty. They are both forces for economic growth and sources of food and employment. However, overfishing, pollution and unsustainable development in coastal and inland areas are contributing to irreversible damage to habitats, ecological functions and biodiversity. Climate change including ocean acidification are compounding such impacts at a time when the rising global population requires more fish as food, and as coastal and riparian areas are becoming home to a growing percentage of the world's population.

8. All these reasons are important arguments for giving fish far greater attention in the food security debate and in the current discussion about how to feed over 9 billion people by 2050. With only very modest increases in yields from marine capture fisheries forecast, the rising demand for fish can only be met by aquaculture.

9. Aquaculture will continue to contribute to economic growth and development, through increased production volumes of safe and high quality seafood, generation of income opportunities and decent work in the sector as well as in associated upstream and downstream sectors including fish processing, marketing and distribution, and through enhanced domestic and international trade.

10. FAO has recognized the importance of aquaculture development and its potential contributions to the improvement of livelihoods and economies in many countries. FAO's Strategic Framework including its five strategic objectives (Box 1), as approved by the Members of the FAO Conference, guide FAO's policies and programmes in the various food producing sectors, including aquaculture and fisheries. FAO's Blue Growth Initiative is a key programme based on the full recognition of FAO's Strategic Objectives.

BLUE GROWTH

11. The first proposal for a "*Blue Economy*" is generally attributed to Gunter Pauli in his book "*The Blue Economy 10 years - 100 innovations - 100 million jobs*" (2010). Interestingly the concept was not first intended to relate specifically to oceans or wetlands, rather the term "*blue economy*" was used to reflect an evolution and refinement of the 'green economy' concept.

12. The concept of Blue Growth, which has been compared and referred to also as "*Blue Economy*", "*Green Economy in a Blue World*", "*Blue Green Economy*", "*Blue economy, the new maritime green economy*" or "*Green growth in fisheries and aquaculture*" has developed during recent years as an emerging paradigm for the sustainable utilization and management of natural marine and freshwater resources including in particular living aquatic resources. The terminology "Blue Growth" is preferred by many instead of "*Blue Economy*", because there has been criticism in some development circles of the "*green economy*" concept, in particular its emphasis on zero or limited growth.

13. The Blue Growth Concept featured prominently during Rio+20. The outcomes of Rio+20 have proven to be a strong catalyst for driving new efforts towards the implementation of previous and new commitments on oceans and wetlands to restore, exploit and conserve natural aquatic resources.

14. The Samoa Pathway recognizes the adverse impacts of climate change and sea-level rise and the efforts by Small Island Developing States (SIDS) to achieve sustainable development as well as to their survival and viability, and addresses economic development, food security, disaster risk reduction (DRR) and ocean management, among other issues. It is well known that coastal communities in particular are the first and most affected by climate change, whilst their ecosystems are also pivotal for the maintenance of life on earth.

15. Due to recognition by FAO of the importance and need for the aquaculture and fisheries sector to sustainably grow in order to meet the rising demand for sufficient safe and nutritious food and contribute to poverty alleviation, and the fact that zero growth is neither realistic nor desirable, FAO is promoting "Blue Growth" in its initiative rather than "*Blue Economy*".

16. The FAO Blue Growth Initiative (BGI) is a coherent framework for the sustainable and socioeconomic management of living aquatic resources and is anchored in the principles set out in the benchmark Code of Conduct for Responsible Fisheries (CCRF) back in 1995. Blue Growth focuses on capture fisheries, aquaculture, fish processing, but also emphasizes the role of ecosystem services, trade and social protection. The BGI increasingly emphasizes the integration of fisheries and aquaculture with other users and services of aquatic ecosystems and underscores the value of fisheries and aquaculture for these users. Already Article 10 of the CCRF “Integration of fisheries into coastal fisheries management” recommended the development of institutional frameworks and policy measures which would facilitate more effective integration of interests and needs of coastal resource users.

17. FAO believes that more than ever before, achieving the full potential of the oceans and wetlands requires an integrated approach to restore their productive capacity and ecosystem services. In December 2013, FAO launched the BGI in support of food security, poverty alleviation and sustainable management of aquatic natural resource. FAO defines Blue Growth as “*Sustainable growth and development emanating from economic activities using living renewable resources of the oceans, wetlands and coastal zones that minimize environmental degradation, biodiversity loss and unsustainable use of aquatic resources, and maximize economic and social benefits*”.

18. With the BGI, FAO aims at restoring the productive potential of the oceans, coastal and inland waters, and wetlands by strengthening responsible management regimes and practices to reconcile economic growth and food security with their conservation and the eco-systems they sustain, and to create an enabling environment for people working in fisheries and aquaculture to act not only as resource-users but also as resource-stewards. It focuses on improved livelihoods and social equitability as well as transparent and more secure food systems. Social responsibility is emphasized throughout the entire fish value chain.

19. The BGI aims to achieve better and more efficient resources management resulting in improved environmental and social performance during fish production, focusing on responsible integration of water-based development and management activities. Under the environmental pillar, it will focus on strategies to reduce negative impacts of aquaculture, including mangrove restoration, improved carbon sequestration, sustainable intensification and enhanced use of renewable energy in aquaculture. The initiative will endeavour to improve social performance by helping to create decent employment in aquaculture.

20. Achieving Blue Growth needs capacity, policy and legislation, regulatory environment, and ownership. There is need for greater policy coherence to ensure synergy between sectors which have a significant impact and influence on the water bodies (marine and inland) and respective socio-economic sectors such as fisheries, agriculture, water, transport, energy, waste management and tourism. A more integrated economy brings greater sustainability and efficiency as well as cost savings and benefits to the local population. In this regard, policies should be recognized as processes (rather than events), which should be monitored for possible changes in planning and implementation; and, enforcement and acceptance of legislation is crucial to ensure the sustainable and equitable use of ecosystem services.

21. The BGI aims at enabling the catalysis of policies, investment and innovation which would underpin sustained growth and give rise to new economic opportunities in ecosystem goods and services. It would integrate key aspects of economic performance, such as economic growth, wealth generation and trade, but foremost poverty reduction, food security and food supply, job creation and decent work, social inclusion and community resilience, with those of environmental performance, such as environmental resource management, mitigation of climate change, ecosystems and biodiversity restoration.

22. The BGI aims at mobilizing financial and technical support and building local capacity for the design and implementation of blue growth strategies and create action-oriented policy options and institutions tailored to the respective social and economic circumstances and constraints of Member countries. By working at global, regional and national levels, the BGI can bring about transformational changes in capture fisheries management, resource and habitat conservation and sustainable intensification of aquaculture, and, concomitantly, social and economic improvement along the fish value chain.

23. The BGI has four major streams of work for unlocking blue growth and supporting the three pillars of development:

- Capture fisheries – marine and inland
- Aquaculture – freshwater, brackish and marine
- Livelihoods and food systems – including trade/markets/post-harvest and social support, for example decent employment and social protection
- Eco-system services – including “novel”/non-traditional ecosystem services in addition to fisheries, for example, that contribute to creating income, supporting livelihoods and reducing poverty.

24. The BGI will assist Member countries in (a) confronting the risks of famine, malnutrition and food insecurity; (b) strengthening efforts in support of sustainable fisheries and aquaculture (including integrated approach to efficient resources management); (c) improving governance to facilitate the evolution towards more inclusive growth; (d) reducing rural poverty and developing coastal and inland economies; (e) helping to boost the resilience of livelihoods in the face of disasters; creating decent employment.

25. The BGI also promotes partnerships amongst industry, governments and communities at all levels. The recognition of the fundamental role the private sector and public-private partnerships will play in changing current behaviours and technologies, and accepting that short-term economic impact will be superseded by long-term economic gain, is essential.

26. The BGI will effectively support cooperation and partnerships for sustainable aquaculture growth and development. For aquaculture, the BGI will actively partner FAO with international organizations; (e.g. Organisation for Economic Cooperation and Development (OECD), United Nations Environment Programme (UNEP), World Bank (WB)); the fisheries and aquaculture organizations (e.g. Network of Aquaculture Centres in Asia-Pacific (NACA), South East Asian Fisheries Development Cooperation (SEAFDEC), WorldFish Centre); civil society (e.g. The International Collective in Support of Fishworkers (ICSF)); the World Forum of Fish Harvesters and

Fish Workers (WFF); and the private sector. This partnership is fostered through the Global Aquaculture Advancement Platform (GAAP), an FAO mechanism to bring key stakeholders together towards increasing contributing to sustainable development and management of aquaculture.

27. The challenge to FAO and its BGI partners is to obtain and provide incentives and adequate resources to adapt and implement this framework at the local, national and regional levels to secure political commitment and governance reform, including by building effective institutions that lead to the adoption of innovative socio-economic and ecosystem approaches to fisheries and aquaculture with fair and responsible tenure systems.

28. Required mandate, political will and the resources for implementing the BGI are partially secured through establishing BGI within FAO's Strategic Objectives (SOs), regional initiatives, and Major Areas of Work (MAWs). For example, in Asia and the Pacific, the BGI is combined with efforts of the Zero Hunger Challenge, the Regional Rice Initiative, the Regional Initiative on Sustainable Intensification of Aquaculture, and developing local value chains for food security and nutrition.

BLUE GROWTH AND AQUACULTURE

29. Following the launch of the BGI in FAO, the Initiative and its concepts have been at the centre of international consultations. They include:

- The “*Asia Conference on Oceans, Food Security and Blue Growth*” (18–21 June 2013, Bali, Indonesia);
- The “*First Blue Economy Summit*” (19–20 January, Abu Dhabi, United Arab Emirates);
- The “*Global Oceans Action Summit for Food Security and Blue Growth*” (22–25 April 2014, *The Hague, Netherlands*);
- The John Kerry’s “*Our Ocean*” Conference (16–17 June 2014),
- The “*UN Conference on SIDS*” (1–4 September 2014, Apia, Samoa);
- The “*Workshop for the Development of a Voluntary Global Alliance/Network for Actions on Blue Growth and Food Security*” (8–9 September 2014, Jakarta, Indonesia); and
- The “*Launch of the Global Action Network on Blue Growth and Food Security*” (11-13 March 2015, St George’s, Grenada).

30. Concurrently, the Blue Growth concept has become important in the oceanic and freshwater development strategies of international organizations such as the European Union (EU) the Organisation for Economic Cooperation and Development; United Nations Environmental Programme, the World Bank, Global Environmental Facility (GEF), and many nations, both developed and developing.

31. Since the launch of BGI in 2013, several countries have requested technical assistance from FAO to align their fisheries, aquaculture and aquatic resource management activities along the Blue Growth concept. Extra-budgetary resources have been mobilized, through various modalities including FAO's Technical Cooperation Programme projects (TCPs), to assist with the implementation of one or several of the four streams of work of the BGI (Capture Fisheries; Aquaculture; Ecosystem Services; and Livelihoods and food systems, including Trade and Marketing)

in several countries. Additional resources are needed to address the increasing demand for piloting the BGI in many countries and to upscale the successful experiences so far gained.

REGIONAL INITIATIVES

32. FAO is currently assisting the implementation of activities within the BGI framework in several countries, including SIDS. There is high potential to upscale the results of this pilot work to benefit other coastal countries and communities. The BGI offers opportunities for regional Member countries to collectively and individually involve in aquaculture development activities within a Blue Growth framework. The following are two regional initiatives in Asia; (i) the Blue Growth Initiative, focusing on aquaculture, and (ii) the Rice Initiative, and another regional initiative in North Africa and the Near East towards unlocking Blue Growth potential in some selected countries. In these initiatives, Blue Growth plays a major role by integrating different farming sectors, different uses of the aquatic resource, to increase resource use efficiency, social and economic impacts and conservation and biodiversity.

33. In Asia, fish currently supplies about 20 percent of the animal protein in people's diets. Due to the increasing population and economic growth, by 2030 fish consumption in Asia is estimated to surge by about 30 percent. Aquaculture is seen as the only way to meet the increasing demand due to the stagnant production from capture fisheries. The goal of the Asia regional initiative is to achieve sustainable growth and intensification of Asian aquaculture, within a Blue Growth framework, which will contribute to food and nutrition security through meeting increasing regional and world demand for fish, poverty alleviation by making aquaculture an attractive and resilient livelihood and overall contribute to economic development in the region.

34. This regional initiative on sustainable intensification of aquaculture for Blue Growth has been created through the endorsement of the Member countries at the last FAO Regional Conference for Asia and the Pacific. The objectives of this regional initiative are: (a) Improve the utilization efficiency of aquaculture resources; (b) Improve production efficiency with reduced impacts on the environment, (c) Increase the resilience of farmers and the sector; and (d) Improve the equity and social acceptability along the aquaculture value chain.

35. The major areas of work of this regional initiative are:

- Support member countries in identifying options for addressing key governance issues in achieving sustainable aquaculture growth through appropriate regional and national consultation process, develop relevant regional and national policy, strategy and action plan.
- Increase farmers' adaptability to climate change impact and resilience to natural disasters and socioeconomic risks through development by promoting innovative aquaculture management concepts and practices and by facilitating more inclusive and broader adaptation, e.g. at the watershed level.
- Reduce negative environmental and social impacts of aquaculture intensification, by promoting innovative farming technologies and management practices, establishing effective aquaculture bio-security and disease surveillance and control systems, and by applying appropriate planning and management tools and responsible use of resources.

- Support the member states to increase knowledge of ecosystem services (from water basin to coral reefs) supporting food, nutrition and livelihood security, and increased resilience. To identify the drivers of change affecting these services and their values, and provide technical and management options to improve ecosystem services supporting food security, such as aquaculture, mangrove restoration for improved fisheries, ecotourism, coastal protection and increased carbon sequestration, etc.
- Support the member governments in improving the access of poor rural aquaculture farmers to quality production inputs, sustainable production technology and markets for improved productivity and economic efficiency.
- Improve management of forestry (mangrove), water, land and tenure that will contribute to sustainable intensification of aquaculture.

36. The Regional Rice Initiative focuses on Asia which is home to rice, and people in this region depend on rice economically, socially and environmentally. Without rice, sustainable development in Asia can hardly be achieved. Furthermore, rice plays an essential role in global food security.

37. This initiative on improving the sustainability of rice production and resource use efficiency, and ultimately improving food and nutrition security, based on goods and services from rice ecosystems and landscapes is also a collective recommendation of the Member countries at the 2014 Session of the FAO Regional Conference for Asia and the Pacific.

38. Phase II of this regional rice initiative will assist the regional countries to come up with sustainable ways of rice farming as well as overarching rice policies and strategies. The initiative will (a) support rice farmers and producers in applying innovative and sustainable rice farming practices through the effective provision and utilization of rice ecosystem services and goods; (b) build a knowledge base and evidence for resource use and production efficiency to demonstrate the effectiveness of the sustainable rice ecosystem-based approach; and (c) realize food-secure, better nourished and prosperous rice farmers and consumers in the Asia-Pacific region by contributing to policy processes, in particular the formulation and implementation of national rice strategies or policies, building on the strategic options laid out by the Regional Rice Strategy for Sustainable Food Security in Asia and the Pacific.

39. To achieve the objectives, an array of options which are more productive, sustainable and efficient in resource use are available. These include: rice-fish, rice-livestock and rice vegetables systems, Integrated Pest Management (IPM), Trees Outside Forests (TOF), Globally Important Agricultural Heritage Systems (GIAHS), Mapping System and Services for Canal Operation Techniques (MASSCOTE), and the Analysis and Mapping of Impacts under Climate Change for Adaptation and Food Security (AMICAF). These applications are integrated in the overarching Save and Grow paradigm, i.e. producing more and better with fewer input, through Farmers Field Schools to realize sustainable intensification of rice production (SIRP).

40. FAO has launched three new regional initiatives for the Near East region (RNE), each addressing a particular area of concern.

41. *Water Scarcity Initiative (WSI)* - The region is naturally exposed to chronic water shortages and the per capita water availability in 2050 is predicted to be some one-third of its 1970 level. Agriculture currently uses 85% of the available freshwater, and it is expected that future shortages will have major consequences for food security. This initiative will work to increase the efficiency of water usage by sharing best practices, applying new tools and technologies, increasing agricultural water management, developing strategic partnerships, and promoting strategic planning and governance reform.

42. *Sustainable Small-Scale Agriculture initiative (SSAI)* - Small-scale agriculture is at the heart of reducing rural poverty. This initiative aims to strengthen on farm and off-farm productivity and employment through greater access to resources, markets, and services. Addressing the needs of and opportunities for rural women and youth is a priority. The initiative will support relevant institutions, identify opportunities, provide expertise, advise on making financial services available, improve efficiency along value chains, and support enabling and management policies along the value chain.

43. *Resilience to enhanced food security and nutrition initiative* - This initiative focuses more directly on eradicating hunger and malnutrition. This will be achieved by supporting frameworks for food security and nutrition, collecting and discriminating information, reducing losses along food supply chains, and diversifying so as to provide a range of food stuffs that will be nutritious and increase resilience to emergency situations and shocks.

OTHER BGI ACTIVITIES

44. The following is a brief description of ongoing and projected fisheries and aquaculture focused BGI activities:

- Integrating BG concepts into fisheries policy and governance processes aimed at sustainable aquatic resource development, management and conservation.
 - Ongoing: Algeria, Cabo Verde, Gabon, Indonesia, Kenya, Madagascar, Mauritania, Morocco, Senegal, and Seychelles.
 - Pipeline: Near East Region, Bangladesh, Côte d'Ivoire, Gulf of Guinea, Iran, and Mozambique.
- Providing technical assistance on sustainable intensification of aquaculture.
 - Ongoing: Bangladesh, Sri Lanka, Viet Nam.
 - Pipeline: Indonesia, Philippines. Selected countries out of 14 in Africa that have been supported by FAO to develop a national strategy for aquaculture development.
- Better management practices, decent employment and livelihoods and improved markets in fisheries and aquaculture.
 - Ongoing: selected countries in the Indian Ocean and East Africa, Cabo Verde, Kiribati, Namibia, Philippines, Santa Lucia, and Senegal.
 - Pipeline: Angola, Ecuador, Ghana, Morocco, and Thailand.
- Improving ecosystems services in the aquatic sector.

- Ongoing: Kenya, Indonesia.
- Pipeline: i) Sustainable management of Amazon riparian region to protect ecosystem services, with particular emphasis on fisheries and forestry; ii) Blue Carbon for Blue Growth – Supporting mangrove management in fisheries and aquaculture communities of Indonesia; iii) Reduction of greenhouse gas (GHG) emissions in Indonesia through peat land restoration and improved fishery and forest production in Central Kalimantan.

45. There is ample scope for initiating more regional Blue Growth initiatives including fish, fisheries and aquaculture in other regions of the world. What is necessary is the political will.

46. Above two regional examples in Asia and the sub-regional and national initiative, both in Asia and elsewhere in the world, demonstrate the strong opportunities of the BGI, as a vehicle for driving towards more integrated, resource efficient, socially and economically sound and environmentally optimal aquaculture development, through effective partnerships, all round the world.

47. We need to better understand the challenges and opportunities to the Blue Growth concept/initiative and its implementation. The institutional challenges of cross-sectoral cooperation including aspects of resource flows and resource allocations, for vertical and horizontal inter-agency cooperation, and for public-private collaboration, are all important aspects to consider. Empowerment of national entities and delegation of authority e.g. to other entities, decentralization, explicit recognition and involvement of non-state actors (CSOs, private sector) and their rights (e.g. small-scale producers, fish workers/labourers, gender, consumers, etc.) all require further analysis and discussion.

48. The BGI is well embedded in the FAO's new strategic objectives, regional and sub-regional initiatives and FAO's major areas of work. It is also considered a major cooperate area for resource mobilization. Further recognition of the potential value of being partners with FAO in the BGI should improve the sustainability and responsibility of aquaculture development and production, in the years to come.

Box : FAO's strategic objectives provide the political framework for Blue Growth

Achieving food security for all is at the heart of FAO's efforts. The three main goals of FAO's work towards ensuring people have regular access to enough high-quality food to lead active, healthy lives are: (i) the eradication of hunger, food insecurity and malnutrition; (ii) the elimination of poverty and the driving forward of economic and social progress for all; and, (iii) the sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations. To meet the demands posed by major global trends in agricultural development (crops, livestock, forestry and fisheries) and challenges faced by member nations, FAO has identified key priorities on which it is best placed to intervene. A comprehensive review of the Organization's comparative advantages was undertaken which enabled strategic objectives to be set, representing the main areas of work on which FAO will concentrate its efforts in striving to achieve its vision and global goals. There are five strategic objectives (SOs).

SO1: Help eliminate hunger, food insecurity and malnutrition

The challenge is to develop sufficient capacity in the world to produce enough food to feed everyone adequately and the mandate is to support members in their efforts to ensure that people have regular access to enough high-quality food. FAO supports policies and political commitments in promoting food security and good nutrition by making sure that up-to-date information about hunger and malnutrition challenges and solutions are available and accessible.

SO 2: Make agriculture, forestry and fisheries more productive and sustainable

The world's population is predicted to increase to 9 billion by 2050. Some of the world's highest rates of population growth are predicted to occur in areas that are highly dependent on the agriculture sector (crops, livestock, forestry and fisheries) and have high rates of food insecurity. Growth in the agriculture sector is one of the most effective means of reducing poverty and achieving food security. The challenge is to ensure that increased productivity does not only benefit the few, and that the natural resource base can provide services (pollination, nutrient cycling in soils, quality water, etc.) that enhance sustainability.

SO 3: Reduce rural poverty

Most of the world's poor live in rural areas. Hunger and food insecurity above all are expressions of rural poverty. Reducing rural poverty, therefore, is central to FAO's mission. FAO strives to help smallholders improve farm productivity whilst aiming to also increase off-farm employment opportunities and, through social protection, find better ways for rural populations to manage and cope with risks in their environments.

SO 4: Enable inclusive and efficient agricultural and food systems

With increasing globalization, agriculture as an independent sector will cease to exist, becoming instead, just one part of an integrated value chain. The value chain exists both upstream and downstream, or from production through to processing and sales, in which the whole is now highly concentrated, integrated and globalized. This poses a huge challenge for smallholder farmers and agricultural producers in many developing countries where even the most economically valid smallholders can easily be excluded from important parts of the value chain. Increasing their participation in food and agricultural systems is critical to achieving FAO's goal of a world without hunger.

SO5: Increase the resilience of livelihoods to threats and crises

Each year, millions of people who depend on the production, marketing and consumption of crops, livestock, fish, forests and other natural resources are confronted by disasters and crises. These emergencies threaten the production of, and access to, food at local, national and, at times, regional and global levels. FAO's mission is to help countries govern, prevent and mitigate risks and crises and support them in preparing and responding to disasters.

FAO's programme of work is now centered round these five Strategic Objectives. Each SO is achieved through the implementation of planned and targeted initiatives and activities at national, sub-regional, regional and global levels. The implementation of these activities and initiatives which are grouped into crosscutting and integrated major areas of work (MAW) is regularly monitored and managed by FAO with focus on national, sub-regional, regional, and global levels.