A Framework for Action on Agriculture

WEHAB Working Group
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Preface and Acknowledgments

The WEHAB initiative was proposed by UN Secretary-General Kofi Annan as a contribution to the preparations for the World Summit on Sustainable Development (WSSD). It seeks to provide focus and impetus to action in the five key thematic areas of Water, Energy, Health, Agriculture and Biodiversity and ecosystem management that are integral to a coherent international approach to the implementation of sustainable development and that are among the issues contained in the Summit's Draft Plan of Implementation.

The five thematic papers are based on initial consultations with concerned agencies of the UN System and are not intended to be consensus documents reflecting the totality of UN System activities in these areas. They do, however, try to provide a broad view of existing normative and programmatic frameworks in each area, to highlight interlinkages among the sectors, to identify key gaps and challenges and to highlight areas where further action is needed.

The WEHAB initiative also responds to resolution 55/199 of the UN General Assembly that mandated the WSSD preparatory process and decided that the Summit should focus on areas where further efforts are needed to implement *Agenda 21* and that action-oriented decisions in those areas should address new challenges and opportunities. In that regard, the initiative takes fully into account the text of the Draft Plan of Implementation agreed at the fourth meeting of the Preparatory Committee for the WSSD in Bali, as well as existing agreed multilateral frameworks. It includes proposals for a number of targeted actions in each of the sectoral areas that are anchored in various intergovernmentally agreed multilateral frameworks on the basis of an incremental approach to meeting broad targets.

The UN General Assembly, in resolution 56/226 on the World Summit on Sustainable Development, also encouraged new initiatives that would contribute to the full implementation of *Agenda 21* and other outcomes of UNCED by strengthening commitments at all levels, including by reinvigorating global commitment and partnerships, both among governments as well as between governments and major groups. Partnerships have thus emerged as an important aspect of the further implementation of *Agenda 21*. While partnerships may involve several actors and be of a broad nature, the WEHAB initiative, drawing as it does on intergovernmental frameworks, could provide a structure for partnerships in these five areas and in this regard could potentially serve as a framework for benchmarking action and monitoring progress in the follow-up to the WSSD.

Due to constraints of time, the initial approach taken in the preparation of the WEHAB initiative was, of necessity, somewhat selective and is not meant to imply any priorities at this stage. If member states believe that a co-ordinated approach to implementation in these areas is required, however, the WEHAB initiative potentially provides a framework for the development of a coherent and co-ordinated follow-up by the UN System based on the intergovernmentally agreed outcome of WSSD. As such, it should be seen as the beginning of a process of follow-up by the UN System.

More than 100 people contributed to the production of these booklets. The list is too long to name everyone here. The names that follow are of individuals who spent a great deal of their time in drafting, providing texts, reading material and giving overall advice. This project would have never been possible without the exemplary joint team work. This is, in fact, an example of the outstanding capacities of the UN System and the World Bank and their capacity to produce team work in record time with very good quality.

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Other staff members of the many agencies listed on the inside back cover provided a number of useful inputs and contributions. Many of them, as in UNEP, FAO and WHO, spent a great deal of time reviewing and providing texts. They are too many to list but we appreciate their timely and valuable inputs. We would like particularly to thank UNEP, UNDP, the World Bank's Environmentally and Socially Sustainable Development Network, UNDESA, UNIDO and WHO for the valuable and substantive support and for placing a large number of the core staff and resources at our disposal.

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Last but not least, this project would never have seen the light of day without the unstinting efforts of Luis Gomez-Echeverri of UNDP, who came to New York to lead the WEHAB Working Group and to manage the project that produced these contributions to WSSD in a very short period of time.

Nitin Desai
Secretary-General
World Summit on Sustainable Development

Agriculture: Key Issues and Challenges

Agriculture plays a crucial role in sustainable development and in hunger and poverty eradication. Some 70 per cent of poor and hungry people in developing countries live in rural areas and depend directly or indirectly on agriculture for their livelihoods.

Agricultural productivity growth can bring about swift and sustainable reductions in hunger and poverty, for farm incomes rise when productivity increases. When this happens, small-scale farmers and rural labourers spend the additional income largely on food and basic non-farm products and services in rural areas, which tend to be produced and provided locally. Non-farm enterprises, both formal and informal, offer the poor a potential escape route from poverty, since they usually require little capital or training to set up. The extra income from agricultural growth can create demand for these goods and services, creating a virtuous circle in which agricultural and rural off-farm income grow and sustain each other's growth—and often that of the whole economy. Such broad-based development opens up new opportunities for reducing poverty and hunger.

Over the past 30 years, agricultural productivity growth resulting from successful agricultural research and development meant food production in developing countries tripled, outstripping population growth. Over the same period, the proportion of undernourished people dropped from 35 to 17 per cent, real prices of the main cereal crops declined dramatically and poverty decreased.

These results were achieved despite the declining availability of land and water resources per person, but they often resulted in the depletion or degradation of the natural resource base, generating costs that are only now being realized. It follows that future increases in food and other agricultural production will have to come mainly from sustainably intensified and more efficient use of these limited resources, particularly water. In order to accomplish this, it is necessary to assess development activities in terms of their potential impacts on natural resources as well as their dependence on the availability and quality of these resources. Public and private investment must be increased to manage the resource base, improve technical production efficiency and create an enabling environment for the implementation of policies and practices that foster sustainable increases in agricultural production. If this process is correctly designed and implemented, the economic prosperity generated through hunger reduction can create the demand and means for the sustainable use of natural resources, which in turn can contribute to increased prosperity.

But there are serious constraints to making agricultural intensification and growth a vehicle for sustainable hunger and poverty reduction, including the following:

- *Natural resource constraints*. Arable land per person in developing countries has shrunk from 0.32 hectares in 1961/63 to 0.21 hectares in 1997/99 and is expected to drop to 0.16 hectares by 2030. At the same time, several processes are contributing to declining quality of land resources. Soil erosion is responsible for about 40 per cent of land degradation world-wide, while 20–30 per cent of irrigated land in developing countries has been damaged by waterlogging or salinity. Extreme poverty and hunger push people onto marginal lands and more fragile ecosystems characterized by drought stress and low soil fertility. Yield growth, which contributed more than 70 per cent to crop production increases in the last four decades, slowed during the 1990s, and environmental stress increased. Long-term investments in land resources are needed to reverse these processes, but insecure land tenure frequently limits the capacity and incentives to achieve this. Expansion of irrigated areas is expected to slow, yet increased cropping intensity will put additional stress on water resources, leading to more competition for freshwater resources.

- About 70 per cent of poor people in developing countries live in rural areas and depend directly or indirectly on agriculture for their livelihoods.
- Since 1985, more than 7 million agricultural workers have died from AIDS in the 25 countries most affected by the epidemic.
- About 70 per cent of the water currently withdrawn from all freshwater sources is used for agriculture.
- Agricultural expansion has contributed to global habitat loss, including more than half of ecologically high-value wetlands.
- Nearly 40 per cent of the world's agricultural land experiences serious productivity reductions due to soil degradation, with rates up to 75 per cent for some regions.
- Of the 260 million hectares of irrigated land world-wide, 80 million are affected by salinization—a concentration of salt in the soil surface that severely reduces soil fertility.

- *Poor rural infrastructure*. Rural areas of most developing countries face a deteriorating stock of rural infrastructure and inadequate levels of services, reducing the competitiveness of rural producers outside local markets and restricting their access to current market information. Rural areas lack roads and bridges, small-scale irrigation systems, post-harvest storage facilities, processing and market facilities, health clinics, electricity and telecommunication facilities. Upgrading these basic infrastructures and services will stimulate private-sector investment in food processing for added value, safety, storage and marketing.

- *Poorly functioning rural financial markets*. Rural households in developing countries need an integrated rural financial system that allows small savers to save conveniently and cheaply and that provides insurance and credit. Unfortunately, this need is rarely met. As a result, the poor find it difficult to cope with risks of various sorts and cannot afford to purchase important inputs such as fertilizer, chemicals and farm machinery or to hire additional labour even when it would be profitable to do so. And many risky but potentially profitable investments are not undertaken because the consequences of failure can be catastrophic for people on the edge of survival with no insurance, no savings and no line of credit to fall back on.

- *Poor systems for knowledge generation and dissemination*. Research on technologies and production methods that yield few private benefits to researchers, but that can provide sustainable increases in agricultural production and improved management of natural resources among poor populations, is seriously underfunded. This includes most forms of pro-poor technology development and most approaches to farm development that do not depend on the increased use of purchased inputs—such as integrated pest management and measures to raise the organic matter content of soils or to improve fertilizer use efficiency (through biological nitrogen fixation, for instance)—or that rely on the sustainable use of genetic resources. National agricultural research and extension systems, many of which have lost some of their effectiveness, also need to increase their capacity to respond better to the technology needs of small farmers.

- *Market access and globalization*. Markets are important drivers for agricultural growth, making cash crops attractive and allowing specialization and diversification into new products. In many developing countries, however, market access faces constraints such as inadequate physical infrastructure, sanitary and phytosanitary barriers, unstable market opportunities related to production variability, relatively small markets, lack of current market information and trading skills, uncertain policy environments and rapidly changing trade regulations. International trade in high-value products such as fresh fruit, vegetables, aquaculture products and flowers has created an opportunity for developing-world farmers to compete in export markets. On-going negotiations are aimed at making world markets accessible and based on fair competition.

- *Unfinished policy and institutional reforms*. Appropriate institutions and policies are necessary conditions for agricultural productivity growth. They create the 'enabling environment' in which markets guide the combination of land, water and plant and animal genetic resources—with appropriate technologies, financial capital, labour and infrastructure to produce growth. Legal and regulatory frameworks, trade and taxation policies and sector-specific policies all influence the incentives facing farmers. Overvalued exchange rates and protection for industry, for example, act as an implicit tax on agriculture and reduce farmers' incentives to produce.

Extreme poverty and hunger push people onto marginal lands and more fragile ecosystems characterized by drought stress and low soil fertility.

Although these constraints do pose difficult challenges, they can be overcome—as the experience of several countries shows.

In the lead-up to the World Summit on Sustainable Development, it is essential to focus on issues and actions that target reductions in poverty, hunger and environmental degradation and that are needed to promote sustainable economic growth. (See Box 1.) The remainder of this chapter considers agriculture's place among the five key areas described by Secretary-General Kofi Annan as critical global challenges of the twenty-first century: water and sanitation, energy, health and the environment, agriculture and biodiversity and ecosystem management (WEHAB). (See Figure.)

Agriculture and Water

Agriculture dominates water consumption. The UN Food and Agriculture Organization estimates that agricultural water use accounts for some 70 per cent of water withdrawals in a range of small-, medium- and large-scale irrigation initiatives. At the smaller end, stable access to reliable sources of water for small-scale irrigation, stock-watering and household use has been instrumental in allowing poor rural communities to build a set of assets and break out of poverty.

The performance of many of the larger irrigation schemes is poor, however, because water management has failed to respond to changing markets for irrigated produce, farmer preferences, hydro-environmental limits and competition for raw water from municipalities and other productive uses. As

Box 1: Immediate Action – Roll Back Hunger in Africa

When African farmers are asked what their biggest problems are, they most often mention soil fertility and water availability. Sub-Saharan Africa is the only region in the world that does not produce enough food, and farmers pay two to six times as much at the farmgate for fertilizers as other farmers do. One way forward is scaling up new agroforestry practices that replenish soil fertility and that are currently used by about 100,000 farmers throughout east and southern Africa.

The key entry point is replenishing soil fertility by using natural resources, mainly nitrogen from the air with leguminous tree fallows and phosphorus from small indigenous rock phosphate deposits in artisanal ways. And there are no transportation costs—bypassing this infrastructure bottleneck—because the trees are grown during the dry season in the same fields where maize grows during the rainy season.

Some 22,000 farmers using tree fallows in Malawi report they are not suffering from hunger this year, because the increased water-holding capacity of soils is ameliorating the current drought. Scaling up from hundreds of thousands to hundreds of millions is the challenge. The main responses needed are transmission of knowledge, supply systems for tree seeds and political will. After the entry point is taken care of, then improved crop varieties, diversification towards high-value products, improved infrastructure, marketing and information will all follow.

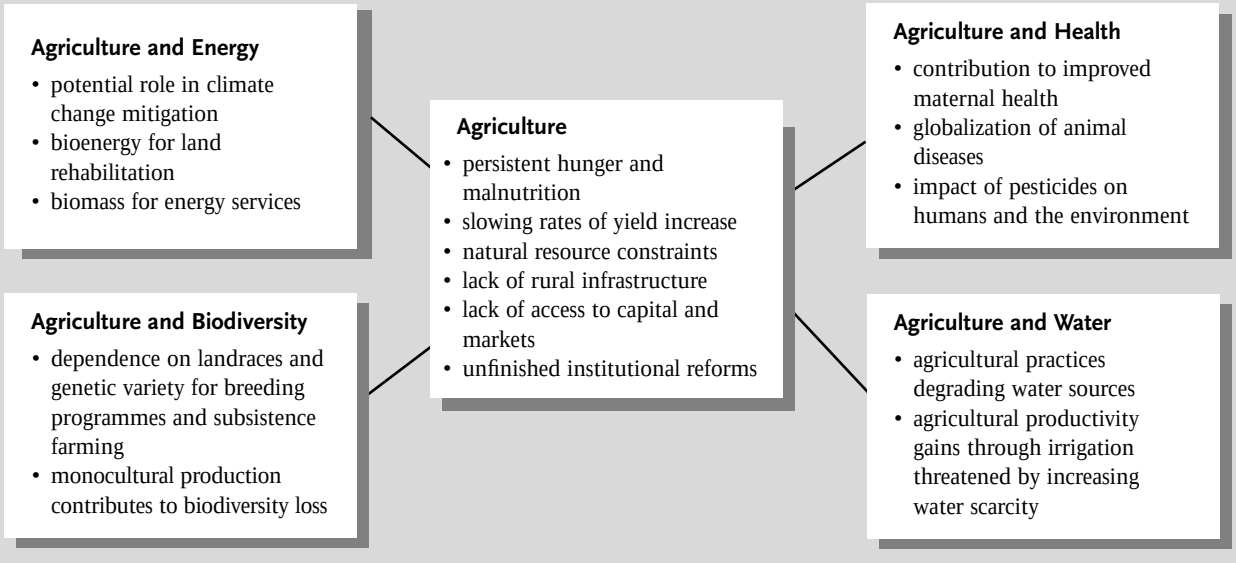
a result, there is considerable scope for improving the productivity and efficiency of certain types of agricultural water use, not only to maintain the integrity of natural freshwater systems but also to be able to negotiate continued allocations in the face of tough economic competition. This is most apparent in the inherently water-scarce countries in South Asia, sub-Saharan Africa and the Middle East, where the reliance on groundwater, in particular, has led to a significant increase in quantity and quality of irrigated produce but also a rapid decline in water tables and pollution of key aquifers.

Mitigating the environmental and social impacts of irrigated agriculture through protection of the water resource base or generation of alternative economic opportunities is a responsibility that agriculture will be increasingly called on to shoulder in the near- to medium-term future. Water-saving technologies and institutional adaptations are already coming into play, whether by default or design. The challenge will be spurring the agricultural sector to become much more responsive to these calls for responsible water resource use while maintaining levels of irrigated production to meet changing demand patterns.

Agriculture and Energy

From an energy perspective, agriculture has a double role: energy consumer and energy producer. All stages of the food chain—from land preparation to irrigation, fertilization, mechanization, processing, conservation, transport and consumption—require one form of energy or another. A combination of fossil fuels and, increasingly, renewable energies such as biomass, solar and wind need to contribute to agriculture's sustainability and productivity.

Figure: Examples of the Critical Role of Agriculture in WEHAB Priority Areas



The key is not eliminating energy use from agriculture but increasing the efficiency of its use and minimizing its negative impacts on the natural resource base on which sustainable agriculture depends. Achieving gains in efficiency also addresses the concerns about climate change and its potentially negative effects. This—plus land use practices aimed at lowering greenhouse gas emissions and carbon sequestration—give agriculture important linkages to the energy sector.

This does not mean that the energy needs of agriculture need to be curtailed. In many developing countries, human force, agricultural residues and animal power are still overwhelmingly the only energy sources available, with obvious implications regarding human drudgery and health. Compared with other sectors, agriculture in developing countries requires relatively small amounts of energy. Meeting agriculture's energy requirements contributes greatly to sustainable development.

Agriculture could become a major energy producer. The conversion of large amounts of biomass and agricultural residues into energy, taking into account nutrient recycling, can contribute considerably to national energy balances. Biomass grown on purpose for conversion to solid, liquid and gaseous fuels contributes also to the rehabilitation of degraded and marginal lands—fulfilling important environmental services linked to soil fertility, offsets for greenhouse gas emissions and rural sustainable development. It is important, however, to prevent this form of energy production from entering into competition with land for food production, which must take precedence.

Agriculture and Health

Increased food availability accounted for 25 per cent of the reduction in child malnutrition in 1970–95, so productivity increases in agriculture are important for gains in child survival. In addition, nutritional quality of foods is a critical element. Food-based approaches to micronutrient malnutrition should be integrated into agricultural development efforts. In fact, agriculture is central to reducing child mortality because malnutrition is a factor in more than half the deaths of children under five in developing countries.

In addition, agriculture plays an important role in improving maternal health because unhealthy, malnourished mothers and women farmers are more likely to have low-birth-weight babies, who in turn are susceptible to malnutrition and disease. About 25 per cent of newborns in developing countries are considered to have low birth weights. By improving incomes and nutrition, gains in agricultural productivity can help break this cycle of passing malnutrition from one generation to the next.

Agriculture and health are linked in another way: combating HIV/AIDS, malaria and other diseases is good for agriculture. Poor people and farming communities in rural areas have been hit hardest by HIV/AIDS, with more than 7 million farm workers dying of the disease in 25 countries over the last 15 years. This has affected productivity at the farm level and led to depletion of assets, skills, knowledge, social bonds and economic opportunities. Those left behind are forced to turn to less nutritious and economically valuable crops that are easier to produce. Furthermore, malaria often strikes during harvest time, threatening agriculture.

Pesticides and fertilizers used in agriculture can contaminate water. Misuse of pesticides can have immediate and chronic health effects on farmers and consumers. Persistent organic pollutants can cause harm to ecosystems both locally and, because of their chemical properties, at great distances from where they are applied.

In addition, globalization of animal diseases—such as the outbreak of foot-and-mouth disease—has caused billions of dollars in losses and required the culling of 4 million head of cattle in the United Kingdom. With demand for meat and milk products expected to more than double by 2020, links between livestock diseases and human health will be increasingly important. About half of the 1,700 organisms causing diseases in humans are naturally transmitted from animals.

Agriculture and Biodiversity

Sustainable agriculture depends on effective management of natural resources and preservation of the biodiversity base. The earth contains some 14 million species, and the majority of them are in tropical forests and marine systems. Yet biodiversity is being lost at unprecedented rates. Twenty-five locations around the world, occupying only 1.4 per cent of the earth, contain more than 60 per cent of the planet's plant and animal species.

Agriculture now extends to cover about one-third of the land surface and is the largest user of biodiversity and its components. Projections suggest that global food production will need to double over the next half-century, either by intensification or expansion. Both scenarios will have important impacts on biodiversity. Management of biodiversity in agricultural ecosystems is thus a necessary component of any overall approach to its conservation. Furthermore, the productive management of agricultural biodiversity will be key to meeting future food needs while also maintaining and enhancing the other goods and services provided by agricultural ecosystems.

Farmers for centuries have created an impressive storehouse of knowledge through the selection, storage and propagation of landraces as well as through livestock breeding. They constitute the largest group of ecosystem managers among humans. As such, there is an opportunity to engage them to improve the management of biodiversity in ecosystems by integrating ecosystem approaches into everyday agricultural management. At the same time, attention will need to be given to reducing the negative externalities of agriculture on biodiversity at all levels (ranging, for example, from within-field destruction of beneficial predators and pollinators up through the increasing load of fixed nitrogen in global ecosystems).

Activities should draw on the political will and technical expertise embodied in the programmes of work established under the Convention on Biological Diversity, and with targets exemplified by those set in the Convention's Global Strategy for Plant Conservation.

Agriculture and the Millennium Development Goals

The Millennium Development Goals (MDGs, see inside front cover) adopted in September 2000 provide key targets to address the most pressing development needs. The central role of agriculture within the context of the MDGs is well understood: agriculture is important in stimulating sustainable economic growth and rural employment, and it is the cornerstone for food security and poverty reduction.

Most poor people live in rural areas, for example, so productive on-farm and off-farm activities are critical to reducing poverty in rural communities. Similarly, women are the engine of agricultural growth in developing countries, so promoting gender equality and empowering women is important for achieving sustainable agricultural development. At the same time, a vibrant agricultural sector helps to promote economic opportunities for women, allowing them to build assets, increase incomes and improve family welfare—all essential steps to empowerment.

If we are to ensure environmental sustainability, reducing agriculture's large and growing ecological footprint is critical. Agricultural activities—land cultivation, freshwater use, depletion of strategic aquifers for irrigation, habitat encroachment through agricultural expansion and misuse of pesticides—have transformed between one-third and one-half of the earth's land surface, and current practices are threatening long-term sustainability. The development of high-yielding crop varieties in the late 1960s is estimated to have preserved over 300 million hectares of forests and grasslands, including considerable wildlife habitat. This both conserved biodiversity and reduced the amount of carbon released into the atmosphere. Improved farming practices and the use of agro-ecosystem approaches will help ensure the viability of agriculture in the future and will enable farmers to become better stewards of the global environment.

Addressing the Challenges in Agriculture

Increasing agricultural productivity remains one of the most effective ways to combat hunger and poverty in the first decades of the twenty-first century. Sustainable production practices can improve agricultural productivity while conserving biodiversity, soil fertility and efficiency of water use and while reducing the pressure to clear forests and overfish the seas. In some cases, the technologies needed do not exist and need to be developed. In other cases, farmers lack the capital to acquire technologies or the human capital to use them effectively. Policies, institutions, infrastructure and market access influence the production practices that are applied and determine whether their impact on the environment and on people is indeed sustainable.

Addressing the interlinked challenges in agriculture requires co-ordinated responses that draw on the strength of all stakeholders. They must be addressed within coherent national strategies for agriculture and rural development, in partnership with the international community, the private sector and civil society. This requires putting in place appropriate policies and institutions and mobilizing resources at the national, regional and global levels. Furthermore, if we are to address all the challenges facing the world today in agriculture, we must refocus our attention on improving the well-being of rural people and reducing rural poverty in the widest possible sense. Average incomes in rural areas need to be increased. At the same time, efforts must be made to improve the quality of rural life, which is currently too often at unacceptably low levels.

Promoting Sustainable Use of Natural Resources

If rural poverty and hunger are to be reduced and if global food demand is to be met, increased outputs will have to come mainly from intensified and more efficient use of the limited means of production. At the same time, action must be taken to arrest the destruction and degradation of the natural resource base, because this is increasingly becoming the barrier to increasing productivity. Achieving these tasks requires investments to develop and deploy practices that improve technical production efficiency and develop practices and foster sustainable and intensified food production. The needs are institutional as much as technical. To promote the maintenance and restoration of natural assets in rural areas, countries should develop strategies that give overall guidance for approaching rural natural resource management issues and that set the framework for linking rural, and especially agricultural, development with natural resource management.

The strategies for improving the sustainable use of natural assets should include:

- reducing land degradation;
- improving water conservation, allocation and management;
- protecting biodiversity;
- promoting the sustainable use of forests; and
- addressing the impact of climate change.

An integrated natural resources management approach that makes the best use of the natural resource base to meet agricultural productivity goals, protects the long-term productivity and resilience of natural resources and yet satisfies the goals of rural communities is needed. This will involve finding alternative ways of maintaining soil fertility that rely less on externally purchased inputs. It will also involve improving the state of knowledge on land degradation status, impacts and causes.

One example of how the former need is being addressed is through the Soil Fertility Initiative for Africa, which is being implemented by the Food and Agriculture Organization with other international partners. Under this initiative, methods such as the intensification of land through improved crop rotations and agroforestry systems designed to enhance biological nitrogen fixation and the use of integrated crop-livestock systems are being promoted. Where land is not yet a major constraint, the emphasis could be on technology changes that raise the sustainability of land use and labour productivity. Examples include minimum tillage systems, which let farmers cultivate a larger area while also contributing to an increase in soil carbon levels. At the same time, there may be further growth in organic agriculture in response to consumer concerns about the perceived risks of farming based on the intensive use of chemical inputs.

Increasing the efficiency of water use in agriculture and improving irrigation system performance in a sustainable manner is a key goal for agricultural development. Since the potential for construction of new irrigation systems is limited, one possible avenue for increasing irrigated agricultural production is to improve the water productivity—the food produced per unit of water consumed—of existing systems. Efficiencies can be upgraded through a combination of both technical and managerial means: ensuring the integrity of existing infrastructure that is economically viable, addressing adverse environmental impacts and providing demand-driven irrigation to improve livelihoods of poor producers and

cost-effectiveness. It could also require strengthened co-operation among farmers in the management and maintenance of irrigation systems linked to a water pricing system that discourages wastage, provides incentives for efficient use and ensures adequate funding for system maintenance. Efficiency could be further increased through promotion of small-scale irrigation, water conservation, secure water rights for users and user group management of systems where appropriate.

To reduce biodiversity loss, emphasis should be given to identifying synergies between the conservation of the genetic variation within the species of crops and livestock and to increasing agricultural productivity and then designing institutional and technical means of promoting these. Examples here include promotion and implementation of the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources, which calls for improved access and benefit sharing from the conservation of plant genetic resources. Involving local communities in biodiversity conservation and providing mechanisms whereby they can benefit from this is another important area for action. Finally, investments into the development of agricultural technologies that reduce pressures on forested areas and implementing these within an enabling policy framework is important for enhanced biodiversity conservation and protection.

The sustainable use of forests will require increased public-sector investment. One key area of focus for such investments should be the development of alternative livelihood opportunities for food-insecure forest-dependent populations. Allowing local communities to benefit from the provision of environmental services that forest management may generate is one potential area where both institutional and technical developments are needed. Reforms promoting greater transparency and accountability in policies affecting forest access and management are required, as is institutional change at national and international levels to ensure the inclusion of non-market values associated with forests, such as biodiversity, carbon sequestration and watershed protection. In addition, reforms in logging contracting procedures are needed.

In addressing the impact of climate change, investments in three key areas could have significant impact: mitigation of greenhouse gas emissions by encouraging farmers to increase carbon stocks in agro-ecosystems, to improve nitrogen and water use efficiency and to improve soil organic matter; reduction of vulnerability and adaptation to climate change; and capacity building to promote and implement these themes, particularly through the facilitation of environmental payment programmes to farmers and the identification of feasible and sustainable means of adaptation to climate change.

Expanding Rural Infrastructure Services

Many developing countries invested substantially in infrastructure and infrastructure services throughout the 1990s. These investments have done much to improve living standards and increase productivity, but the rural areas of most developing countries still suffer from insufficient investments in infrastructure, receive inadequate levels of services and often have a poorly maintained and deteriorating stock. This infrastructural handicap has reduced farmers' competitiveness in domestic and international markets and has increased the costs of supplying growing urban markets from national farm production. Developing countries should broaden access to infrastructure services, promote private-sector involvement in the production and financing of infrastructure investments, and encourage adequate cost recovery and upfront contributions from users. A broad range of stakeholders should be involved in the provision and maintenance of rural infrastructure, including community organizations, local governments, non-governmental organizations (NGOs) and the private sector. The public sector should focus on services that cannot be provided by the private sector and should target interventions to the poorest regions and communities, and to the poorest of the poor within these communities.

High priority must go to the upgrading and development of rural roads and to ensuring their maintenance. Basic infrastructure in energy, water supply, sanitation and telecommunications is needed to stimulate private-sector investment in food marketing, storage and processing. Investments in monitoring and surveillance systems and in building the capacity of institutions responsible for food safety and for plant and animal health will help farmers and rural enterprises tap national, regional and international markets. Unsafe food, especially due to microbial contamination, is a major problem for domestic consumers and is emerging as a key issue in international markets.

Strengthening Knowledge Systems

Agricultural productivity growth requires technology development, dissemination and adoption by farmers. Research will have to be publicly funded where its outputs are such that people who have not paid for them cannot be stopped from enjoying their benefits. Examples include integrated pest management (IPM) practices, measures to raise the organic matter content of soils, biological nitrogen fixation to improve fertilizer use efficiency and genetic resource conservation. Research will also have to be publicly funded if its potential users are so poor that they cannot pay enough to make the research profitable to a private researcher.

A large share of the needed research will have to be done in the private sector since it will be impossible to achieve the

desirable level of funding from the public sector alone. The private sector can be expected to focus on areas where research outputs can be protected or are profitable or both. Biotechnology development is a particularly key example—it has important potential contributions, such as in combating drought stress in plants, although questions regarding safety, bioethics, ecological and environmental consequences and equity still remain.

Innovative partnerships between public research institutes, universities, the private sector, NGOs and producer organizations, including collaborative R&D activities with members of the Consultative Group on International Agricultural Research and other global programmes, can be a source of important synergies. Developing-country governments should also focus on building capacity among producer organizations to contract research and extension services and provide farmers with a menu of technology options. (See Box 2.)

Box 2: Good Practices in Agricultural Technology Generation and Dissemination

In Brazil, Colombia and Ecuador, national competitive funds have forged new research partnerships involving national research institutes, universities, farmers' organizations, NGOs, the private sector and foreign and international organizations. Projects in Venezuela, Uganda and Burkina Faso are building the capacity of rural producer and community organizations and local governments to contract extension services and monitor their implementation, resulting in services that are responding to farmer demands, including information on marketing and business management. Several programmes are incorporating new technologies, such as research in the new field of genomics to target crop breeding more precisely in India and multimedia approaches to disseminating information in Russia.

To achieve pro-poor agricultural growth, any policy on research, education, extension and communication should be based on some key principles: first, that research should serve the needs of the poor; second, that it should promote diversified and sustainable production systems; third, that disseminating existing technologies and best practices should receive as much importance as the development of new technologies; and fourth, that extension services should be responsive to farmers' needs.

To serve the needs of poor farmers, research should focus on such topics as improving drought tolerance and yield response to scarce plant nutrients and building pest and disease resistance. It should also put farmers in decision-making roles and make use of their knowledge of crops, production constraints and local ecosystems.

Promoting diversified and sustainable production systems requires technologies that promote precision use and efficiency of inputs, conservation tillage and integrated nutrient management. Integrating livestock into small farm systems provides a means of recycling nutrients and creates income generation opportunities, especially for women farmers and poor landless people.

Finally, research policy should focus in the short run on identifying and removing constraints to the adoption of practices that promote optimal use of existing technologies, such as conservation agriculture and IPM. Scaling up these technologies to reach millions of small farmers is likely to produce large benefits in agricultural productivity in a short time. For example, scaling up new soil fertility-replenishing practices can have significant payoffs for farmers. So can improved water harvesting and the use of small-scale drip irrigation technologies for high-value vegetable and fruit production. Measures to enhance the adoption of integrated pest management practices—for instance, by eliminating pesticide subsidies and including IPM in farmer education programmes—are also likely to be beneficial.

Governments should attempt to make agricultural extension, education and communication more responsive to farmers' needs through decentralization. Building sound institutions for extension requires investment in human capital, access to databases of best practices for technology generation and dissemination and the application of new information and communication technologies.

Improving the Functioning of Rural Financial Markets

Access to working and investment capital can substantially accelerate the adoption of appropriate production methods and the use of agricultural inputs and can improve the ability of the rural poor to produce a marketable surplus as well as meet their subsistence needs and cope with risk. Developing countries in collaboration with their development partners should therefore focus their support on the development of viable and well-functioning rural financial institutions to allow households, farms and non-farm enterprises to save, borrow and safeguard themselves against various risks. These institutions should be adequately regulated and supervised to ensure that sound banking principles are followed, including discipline in financial contracts and loan repayment. Emphasis should be placed on improving the policy, legal and regulatory environment and on building the capacity to deliver appropriate credit (short-, medium- and long-term), savings, insurance and payment services. There is an unexploited opportunity to mobilize domestic rural savings even among low-income rural people for investing in sustainable agriculture and rural development.

Creating a financial system that is capable of lending to low-income households must be an integral part of any strategy for developing the indigenous private sector and reducing poverty. The goal should be to increase access to financial services by rural households, especially smallholder farmers and women farmers, by addressing policy, legal and regulatory frameworks that allow innovative financial institutions to develop and operate effectively; to increase exposure to and training in best practices that banks and microfinance institutions need to expand their outreach and sustain their operations, along with performance-based support for capacity building; and to increase innovative financial technologies, products and methods that are adapted to local conditions and demands of poor populations.

Completing Policy and Institutional Reforms

Market liberalization and policy reforms in many developing countries have significantly reduced the isolation of rural poor and smallholder farmers from direct involvement in trade and markets at local, national and, to some extent, global levels. (See Box 3.) Still, these farmers are prevented from fully sharing the benefits of market liberalization. In many cases, the reforms have been incomplete and they have occurred in the absence of the necessary policy, regulatory and institutional structures that would enable farmers to respond and benefit. Achieving sustainable economic development and substantial reductions in poverty and hunger depends on completing the policy reform process and building and strengthening the necessary regulatory and institutional frameworks at global, national and local levels.

The international community should support measures that increase market access and reduce unfair competition for agricultural products. On-going negotiations are aimed at making production and export policies more supportive of developing-country needs, particularly in the area of agricultural production. According to a recent World Bank study, global agricultural trade reform has the potential to increase the aggregate welfare of the developing world by some US$145 billion annually. Most of these gains would come from trade policy reforms within developing countries, but industrial countries also have a clear responsibility in this regard, as articulated in the Doha Ministerial Declaration that launched a new round of trade negotiations under the World Trade Organization. While further trade reforms are necessary, the potential negative impacts of these forces on the poor and vulnerable groups should not be ignored.

Developing-country governments need to adopt policies and legal and regulatory frameworks that are conducive to the development and functioning of markets and that improve the investment climate not only for farmers but also for marketing co-operatives, non-farm private-sector entrepreneurs and other off-farm activities in rural areas. Further reforms are needed in domestic rural and agricultural policies to correct remaining urban biases. (See Box 4.)

Building and strengthening the capacity of rural institutions is essential because of their key roles in service delivery and in the formulation and implementation of policies, regulations and legal frameworks. Sound institutions are necessary for ensuring growth, food security, poverty alleviation and the development of human and natural resources. Capacity building for rural institutions should recognize the role of rural producer organizations, co-operatives and other community groups and should strengthen and involve them in service delivery. Governments could concentrate on policies that create an enabling environment for the strengthening and renewal of institutions, including for extension and food safety.

Box 3: Breaking the Logjam

The logjam in agriculture is clear: Farmers in poor areas do not produce because there are no accessible markets and agro-industries; there is no investment by the private sector because there is no rural infrastructure; government does not invest in rural infrastructure because the farmers are poor and do not produce and because the private sector is absent.

Private-public partnerships can turn this situation around. To get out of poverty, smallholder farmers could produce things that have potential markets. There are some good examples of this in Latin America, Asia and Africa (French beans produced by smallholders air-freighted from Kenya to France, for example). Daimler Benz do Brazil has a contract with small-scale agroforesters in the State of Para to supply coconut husks, other fibers and resins used in the manufacture of seats and fenders of Mercedes cars made in São Paulo. The possibilities seem endless at this point. However, these efforts have to be drastically scaled up by intensifying and diversifying agriculture so that it produces high-value products that take advantage of the year-round good temperatures in the tropics as well as the high solar radiation needed for photosynthesis.

A major effort is envisioned to build capacity in the private sector and farmer organizations to make needed links, and for local governments and NGOs to provide support services to partnerships. This is particularly important for the hundreds of millions of landless poor and hungry people in Asia.

Box 4: Strengthening Market Development in Rural Areas

- Create a level playing field for the rural private sector by removing anti-rural biases.
- Promote better and more secure access by the poor to productive assets.
- Support the preparation of agriculture and national rural development strategies.
- Recognize and support the multidimensional social and economic needs of the rural poor.
- Conduct pilot operations in rural areas with market solutions for delivery of agricultural, infrastructure and social services, and promote mainstreaming where intervention proves effective.
- Promote private associations and public-private co-operation that can help solve market failures and reduce high transaction costs.

Increasing Funding and Co-operation

According to the Anti-Hunger Programme proposed by the secretariat of the Food and Agriculture Organization, cutting hunger in half by 2015 will require investing an additional US$23.8 billion annually over the next 13 years. The expected annual benefits of this are estimated to be US$120 billion. While these figures should not be interpreted as a direct cost-benefit ratio, they do imply that reducing hunger—through whatever means—would yield enormous economic benefits in addition to meeting the humanitarian imperative. The total funding required for these additional investments is realistic. All that is needed is a doubling of concessional external development assistance to agriculture and rural development, which is in line with the Monterrey Consensus from the International Conference on Financing for Development, and a 20 per cent increase in public expenditure on agriculture by developing-country governments themselves.

Yet support to the agricultural sector suffered in recent years from a combination of waning public interest, declining investments, pervasive urban bias, poor performance, inappropriate policies and weak institutions. The 1980s and 1990s saw a precipitous decline in funding for this area as donors transferred resources to other sectors and as developing-country governments turned their interest elsewhere. Fortunately, there is a renewed focus on the imperatives of broad-based rural development among bilateral and multilateral development institutions and developing-country governments. African governments have identified agriculture as a priority sector in the New Partnership for Africa's Development.

Success in reducing hunger and achieving sustainable development will depend on the full engagement of the international community and civil society in all its dimensions, working together in complementary ways towards a common goal. At the international level, key players include the UN System and the international financial institutions. Within civil society, much of the driving force comes from parliamentarians, NGOs, academic institutions and philanthropic foundations, as well as individual citizens. Particular attention should be given to identifying and scaling up good-practice investments, such as new soil fertility-replenishment practices based on agroforestry, cover crops, food legumes that replenish soil fertility while providing income and important proteins and animal manures in combination with mineral fertilizers. About 100,000 farmers throughout sub-humid tropical Africa who currently use such practices are doubling or quadrupling their maize yields, definitely reducing hunger. The scaling up of good practices will require special incentives for project and programme implementation and effective monitoring or impacts. It should also involve systematic documentation of key lessons learned and the sharing of good and innovative practices among development practitioners.

The private sector also has a major role to play, especially given its enormous and growing role in developing new technologies and in managing the flows of international agricultural production. Experience has shown, however, that the private sector plays its most effective role in combination with strong government programmes to ensure equity. Partnerships among these many stakeholders are required to build on the many existing initiatives and institutions that are already engaged within their respective mandates in the fight against hunger and for sustainable development.

Agriculture: Frameworks for Action

The World Summit on Sustainable Development (WSSD) is a unique opportunity for the international community to provide inputs on specific initiatives, including institutionalized approaches that would enable the recommendations of international meetings and multilateral agreements, conventions and treaties on agriculture and sustainable development to be translated into practice. It is also the appropriate time and place to take up the recommendations on sustainable agriculture and rural development that were made by the Eighth Session of the Commission on Sustainable Development.

During the preparatory process leading up to the WSSD, a number of stakeholders expressed interest in a range of broad areas for action that could be expanded further through appropriate initiatives. Such initiatives are expected to identify partners and to specify clear targets, timetables, co-ordination and implementation mechanisms, methods for monitoring progress, systematic and predictable funding sources and arrangements for technology transfer. This chapter is intended to facilitate this process by providing frameworks for action addressing the major challenges discussed in the previous sections. These include, but are not limited to, the role of partnerships on agriculture and sustainable development, which it is hoped will help to re-establish the prominence of agriculture on the global development agenda and to channel appropriate financial, human and technical resources to achieve the Millennium Development Goals.

At the national level, possible frameworks for action on agriculture and sustainable development include:

- integrating national agriculture and food security policies with the economic, social and environmental goals of sustainable development;
- ensuring equitable access to agriculture-related services and products, with a particular focus on food security and sustainable livelihood needs of the poor;
- orienting market forces towards environmentally optimal solutions through appropriate policies and regulations;
- exploiting and expanding locally available resources for improved food security and promoting diversification for more effective risk management; and
- focusing on needs of rural areas through decentralized co-operative initiatives and improvements in rural infrastructure.

At the regional and international levels, frameworks for action on agriculture and sustainable development consist of:

- strengthening regional and international co-operation for food security and market stability;
- transferring and adopting appropriate sustainable agriculture practices and technologies;
- building institutional and human resource capacities related to agriculture; and
- mobilizing international financial resources in support of national efforts.

The scale and magnitude of the tasks involved in progressing towards the objective and goals of agriculture for sustainable development are so enormous that national efforts by themselves will not meet the challenges involved. (See Box 5.) Thus building public/private partnerships and encouraging international and regional co-operation are of critical importance. The goals and targets proposed in this publication are only indicative and are by no means prescriptive. They can be modified to suit country-specific circumstances and undergo further changes as experience is gained.

Box 5: The Agriculture Perception Paradox

The term 'agriculture' often evokes negative connotations of overproduction, pollution and subsidies in western industrial countries. Agriculture in Europe and North America is extremely important domestically, but it was dropped by donor organizations as a priority for world development in the 1990s. This led to drastic reductions in research and development investments. Many developing countries took this cue and did the same.

But agriculture continues to be the main engine of economic growth of practically all developing countries, providing many multiplier effects. In Africa, US$1 of new farm income results in US$2 of additional household income. Rates of return on agricultural research are very high, 40–70 per cent. And African governments have identified agriculture as a priority sector in the New Partnership for Africa's Development. It is time to recognize agriculture as one of the top priorities in world development.

Frameworks for Action

The global community has an opportunity now to highlight the key entry points for action on agriculture, with a view to reducing poverty and hunger, facilitating growth and protecting the environment. This can be pursued through creating an enabling environment for policies, improving market access and investing in the generation and transfer of knowledge and in outreach services.

Increasing sustainable agricultural productivity is a necessary condition for combating hunger and poverty in the next decade in ways that are economically beneficial, promote equity, provide global environmental benefits and improve human health and well-being. The proposed frameworks for action are based on the following principles:

- the broad participation of farmers, local communities and decision-makers through the R&D process, with a particular focus on addressing the needs of vulnerable groups;
- the generation and adoption of ecologically sound technologies that enhance natural resource management and genetic improvement and that provide food security;
- the ability to scale up successful projects and initiatives;
- revitalization of research, extension and outreach services;
- adoption of enabling policies in support of new technologies, products and services;
- expansion of improved infrastructures for transportation, processing, marketing, communication and information; and
- the mainstreaming of agricultural policies and services within broader policy frameworks, including the role of strengthened linkages between agriculture, trade and other development sectors such as education, health and nutrition.

When devising frameworks for action, it is important to set goals and indicative targets. In the case of agriculture, the targets and examples of activities included here contribute to achieving the Millennium Development Goals—in particular, those on eradicating extreme poverty and hunger and on ensuring environmental sustainability—and other relevant international agreements related to agriculture and food security. The frameworks for action in this chapter are analogous to road-maps that will allow a wide range of actors to implement a variety of initiatives, actions, projects and polices in order to better fulfil the intent and scope of work envisaged at the relevant global, regional or national level.

Action Area 1: Increase agricultural productivity and sustain or enhance the natural resource base, particularly in sub-Saharan Africa, contributing to efforts to eradicate poverty and ensure environmental sustainability.

Indicative Targets/Milestones

Sixty million rural households in developing countries benefit, contributing to halving the number of people who suffer from hunger by 2015.

Examples of Activities

- Focus on key entry points that will facilitate increased and sustainable agricultural productivity, especially in sub-Saharan Africa, through scaling up of proven technologies to arrest land degradation and improve soil fertility, water management and use practices.
- Promote synergies and build capacity in planning and implementation of interventions at national, community and local levels between agriculture, land degradation and water management.
- Empower communities, including through capacity building, to implement projects and programmes to enable small farmers to take up improved technologies.
- Develop appropriate international and regional co-operative programmes on integrated land use and water resource planning and management by taking stock of existing knowledge and local, national and international experience in a more systematic and detailed manner.
- Improve opportunities for the poor to strengthen, diversify and sustain their livelihoods by taking advantage of synergies and linkages between farming, fishing, animal husbandry, forestry and non-farm activities.

Action Area 2: Encourage knowledge generation and transfer through research, extension, education and communication.

Indicative Targets/Milestones

Increase the generation, adaptation and adoption of new and improved varieties of plants and animals through effective synergies between international, regional and national research systems and extension services (*Agenda 21* and International Code of Conduct for Plant Germplasm Collecting and Transfer, 1993).

Examples of Activities

- Strengthen the establishment of national food insecurity and vulnerability information mapping systems.
- Encourage co-operative efforts at international, regional and national levels in capacity building, transfer of technology, research and development.
- Strengthen national capacities in developing countries to address and to benefit from appropriate technology development related to agricultural services.
- Promote cross-boundary partnerships and alliances related to the generation, adaptation and dissemination of technologies.
- Promote a participatory, demand-driven approach to technology design and generation involving farmers and women's associations and civil society groups.
- Design national policies that facilitate the establishment of functional linkages among research, extension, education and communications.
- Promote information exchange, networking and technology generation and dissemination related to best practices in agriculture, including crop and livestock breeding; integrated crop management and crop livestock systems; soil, water and nutrient management; conservation of vital riparian and watershed areas; integrated pest management; and productive use of renewable energy.
- Ensure that the poor share the benefits of advances in biotechnology in areas such as drought tolerance, pest resistance, deeper roots and improved nutritional value (although questions regarding safety, bioethics, ecological and environmental consequences and equity still exist).
- Promote more ecological practices in agriculture at the local level by disseminating information on success stories around the world.
- Explore new methods for measuring the performance of agricultural practices that take into account not only yield-per-crop contributions but also contributions to the ecosystem as a whole.

Action Area 3: Establish innovative public-private partnerships to stimulate joint implementation of sustainable agriculture and natural resource conservation.

Indicative Targets/Milestones

Reverse the declining trend in yields through adoption of sustainable resource management practices (*Agenda 21*).

Rapidly implement international treaties for the conservation and use of genetic resources (Code of Conduct for Responsible Fisheries, 1995).

Examples of Activities

- Enhance capacities, policies and institutions that promote sustainable agriculture practices and systems, including food production and distribution.
- Strengthen appropriate resource networks and information exchange to enable small farmers, agricultural workers, rural communities and other disadvantaged stakeholders to make the agricultural and economic transition towards sustainable agriculture.
- Strengthen agricultural environmental information development, including building capacity for improved land, water, agro-climatic, forest, fisheries and biodiversity information, monitoring and assessment.
- Design policies that provide incentives for efficiency gains in agricultural water use and that ensure that water scarcity is signalled appropriately to water users.
- Establish stable and transferable rights to the use of resources by individual users or groups of users in a manner that promotes efficiency and distributional equity.
- Enhance the capacity of developing countries to adopt and implement international agreements such as the International Treaty on Plant Genetic Resources for Food and Agriculture and the Code of Conduct for Responsible Fisheries.
- Promote the conservation of aquatic ecosystems and manage associated capture fisheries through co-operation between governments and fishing communities.
- Strengthen institutions and co-ordination at the national and international level to ensure that due account is taken of non-market values associated with forests, such as biodiversity, carbon sequestration and watershed protection.

Action Area 4: Develop enabling policies and associated institutional reforms and regulatory frameworks, including improved infrastructure and access to markets, capital and financial services.

Indicative Targets/Milestones

Increase market access by exploiting fully the comparative advantages of developing countries in both domestic and foreign markets (GATT–Agriculture Agreement, 1986).

Protect small farmers in developing countries by reversing the declining share of agricultural exports from developing countries in total trade flows (World Trade Summit in Doha, 2001).

Examples of Activities

- Ensure that agricultural, food security and nutritional objectives are integrated into broader national development policies and plans.
- Increase market access, with a particular focus on the needs of low-income, food-deficit, least developed, landlocked and small island developing states.
- Reduce high costs to market access by poor and small producers.
- Strengthen developing countries' capacities to participate in multilateral trade negotiations.
- Mitigate the negative impacts of globalization on poor and vulnerable groups, through, for example, the provision of social safety nets.
- Promote associations, organizations, and private-public partnerships that can contribute to reducing market failures and high transaction costs in developing countries.
- Strengthen capacities in developing countries related to the assessment, adaptation and implementation of relevant international policy and regulatory frameworks related to agriculture, food security and food safety.
- Expand public and private investments and partnerships in rural infrastructure, such as building and maintaining rural roads and bridges, small-scale irrigation systems, post-harvest facilities, processing and market facilities and so on.
- Strengthen capacities in developing countries for improving food safety and quality.
- Improve access to rural financial services for small-scale farmers and rural entrepreneurs, and build viable and sustainable rural financing schemes and banking services.
- Provide access to agricultural resources for people living in poverty.

Building and Implementing Partnerships

The international community has a vital role to play in helping developing countries achieve objectives in agriculture for sustainable development. Clearly, various co-operative actions are needed on the part of governments, businesses, civil society, international organizations and other relevant stakeholders to address the challenges. Forging partnerships among all stakeholders therefore constitutes a key component of this action agenda. This section provides a brief summary of some of the critical elements required for building and implementing partnerships in agriculture.[1]

The CSD, based on the preparatory process leading up to the WSSD, has envisaged that forming and promoting new and innovative partnerships will be critical to meet the challenges articulated in this paper. These partnership initiatives are foreseen to be basically of a voluntary nature—agreed on through mutual consultations among the stakeholders. The main focus of these initiatives will be to supplement and complement the WSSD-negotiated outcome and the ongoing work by governments and other stakeholders in the implementation of *Agenda 21*. As such, the partnership initiatives will give rise to a series of commitments and action-oriented coalitions focused on deliverables and would contribute to translating the political commitments into action. In response to a wish for additional guidance on the elaboration of partnerships expressed during the informal meetings on partnerships in PrepCom 3, an addendum to the Chairman's explanatory note, entitled "Further Guidance for Partnerships/Initiatives", has also been provided.[2]

The critical issue is how to translate the idea of partnership building from global or regional-level discussions and advocacy campaigns into local actions. New and innovative partnerships will have to be formed that may involve a wide range of stakeholders and may have many different kinds of ways for partners to participate.

A framework is proposed here to facilitate this process without which individual partnership initiatives devised by a wide range of actors may result in duplication of efforts and restrictions on resource inputs by stakeholders:

Consultative process. All partnerships begin with a dialogue. This can be initiated by a lead partner or partners, by a global consensus or by some other catalyst. The role of a champion or lead partner in moving the partnership forward in the early stages is critical. A broad consultative process for partnerships may also be necessary to assist in sharing experiences and learning at all levels (local, national, regional and global), as individual initiatives will not be isolated but can be informed by and grow from broader processes and initiatives.

Definition of objectives. The next step is scoping and definition of objectives, targets, activities and implementation and co-ordination arrangements associated with the partnership. This requires consultation among different actors in order to harmonize the views and needs of all stakeholders—donors, participating institutions, technical groups and recipients. Underlying principles around which partnership objectives could be defined are: ensuring mutuality of interests, promoting a shared sense of purpose, and engendering respect for all stakeholders.

Mobilization of resources. This stage in the process is crucial to the overall success of the partnership, as it results in the provision of actual (financial, institutional and human) resource inputs. This stage often needs to be initiated in conjunction with the task definition work done by stakeholders.[3]

Implementation of partnerships. All partnerships are dynamic processes or works in progress, and the stage at which the partnership is actually launched or implemented provides all stakeholders with an opportunity to see partnership activities and organizations in operation. Partners can also use this as an opportunity to examine whether additional skills and resources are needed to strengthen the partnership.

Tracking progress and results. At this stage, the partnership initiative is already under way and all stakeholders can now review and evaluate existing operations and experiences. The tracking of short-, medium- and long-term results is crucial in the evolution and growth of a partnership and should allow for modifications and further refining of tasks and activities based on results/targets achieved.

Scaling-up of partnership initiatives. Once a partnership initiative has been established, appropriate steps are needed to scale up and link with other activities in contiguous areas. Going to scale requires the adoption of partnership strategies and linkage mechanisms that can meet challenges involved in achieving agreed objectives.

All initiators of partnerships were invited to complete and submit an Information Sheet related to a specific initiative to the WSSD Secretariat.[4] The Secretariat has posted on its Web site all partnership proposals received. Detailed information on these may be obtained from the official Web site of the Summit. A number of proposals for partnerships have been developed, and many more are still in the process of being developed.

Endnotes

1 A listing of some selected partnerships is available in Annex K of the World Bank document (2001) "Making Sustainable Commitments: An Environment Strategy for the World Bank," at http://gefweb.org/Documents/Council_Documents/GEF_C17/C.17.Inf15.Annexes.pdf.

2 The document entitled "Further Guidance" is a two-page addendum available at http://www.johannesburgsummit.org/html/documents/prepcom3docs/summary_partnerships_annex_05040.doc.

3 Different financing mechanisms, such as those related to regional development banks, the World Bank and the Global Environmental Facility, are potential sources of finance. In addition, an active role for commercial banks and investment companies is envisaged.

4 The Information Sheet is available at http://www.johannesburgsummit.org/html/sustainable_dev/partnerships2_form.doc.

Major Agreements on Agriculture and Their Objectives

In the lead-up to the World Summit on Sustainable Development, it is important to take stock of existing agreements and goals reached in previous UN-sponsored summits and related conventions, treaties or protocols that affect agriculture. This chapter reviews the major UN forums since 1951 and identifies key agreements reached, including their intended objectives and sources of further information.

The review shows that there is a great effort to reach consensus among the international community on how to address most of the issues facing all the subsectors of agriculture. In fact, most of the agreements are complementary and collectively made important contributions to achieving sustainable agriculture development. For example, *Agenda 21*, adopted by world leaders at the 1992 Earth Summit, serves as a blueprint for attaining sustainable development, including agriculture, in this century. Since its adoption, significant progress on sustainable agriculture has been taking place and many identified challenges have either been addressed or are being tackled. In addition, the Millennium Development Goals, especially the one with the target of halving the number of the poor and undernourished people by 2015, have focused the attention of the international community on the importance of sustainable agriculture in low-income countries. There is therefore a consensus that international agreements under UN auspices have played important roles in promoting sustainable agriculture.

Despite progress in many areas, the international community is continuing to address a number of outstanding important issues for agriculture in order to either come to equitable agreement or to reach a consensus. These include such areas as market access, agricultural trade and the use of biotechnology. The respective roles of governments, civil society and the private sector in addressing these issues are also a subject of debate.

Conference/Agreement: International Plant Protection Convention

Date: 1951 (adopted)

Main Focus: Secure common and effective action to prevent the spread and introduction of pests of plants and plant products. Promote measures for their control.

Revised in 1979 and 1997 to make allowance for the setting of international phytosanitary standards as recognized by the WTO-SPS Agreement.

http://www.fao.org/WAICENT/FaoInfo/Agricult/AGP/AGPP/PQ/Default.htm
http://www.ipcc.int

Conference/Agreement: United Nations Convention on the Law of the Sea

Date: 10 December 1982

Main Focus: Conservation of living resources and the study, protection and preservation of the marine environment.

Integrate and balance the right to exploit natural resources with the duty to manage and conserve such resources and to protect and preserve the marine environment.

http://sedac.ciesin.org/entri/register/reg-125.rrr.html

Conference/Agreement: International Code of Conduct on the Distribution and Use of Pesticides

Date: 28 November 1985

Main Focus: Establish voluntary standards of conduct for all public and private entities engaged in or affecting the distribution and use of pesticides.

http://www.fao.org/waicent/FaoInfo/Agricult/AGP/AGPP/Pesticid/Code/PM_Code.htm

Conference/Agreement: **Convention on the Protection and Use of Transboundary Watercourses and International Lakes**

Date: 17 March 1992

Main Focus: Prevention of introduction of alien species to watercourses, which could have adverse transboundary impacts.

http://sedac.ciesin.org/entri/register/reg-167.rrr.html

Conference/Agreement: **U.N. Conference on Environment and Development**

Date: 14 June 1992

Main Focus: Agenda 21: Chapter 14—Promoting Sustainable Agriculture and Rural Development.

Statement of Principle on Forests—adoption of environmental impact assessment for forest activities

Convention on Climate Change

Convention on Biological Diversity—major CBD agricultural biodiversity decisions related to a programme of work on agricultural biodidiversity

http://www.ciesin.org/datasets/unced/unced.html
http:www.biodiv.org

Conference/Agreement: **International Code of Conduct for Plant Germplasm Collecting and Transfer**

Date: Adopted by FAO conference in November 1993

Main Focus: Protect the interests of both donors and collectors of germplasm. Promote the rational collection and sustainable use of genetic resources.

http://www.fao.org/biodiversity/CCPGCT_en.asp
http://www.fao.org/ag/cgrfa/PGR.htm#ITWG

Conference/Agreement: **International Tropical Timber Agreement**

Date: 26 January 1994

Main Focus: Ensure that by 2000, exports of tropical timber originate from sustainably managed sources.

Establish a fund to assist tropical timber producers.

http://sedac.ciesin.org/entri/texts/ITTA.1994.txt.html

Conference/Agreement: **WTO Agreement on Agriculture**

Date: 1 January 1995

Main Focus: Improve market access. Reduce trade-distorting subsidies in agriculture.

http://www.wto.org/english/tratop_e/gatt_e/gatt_e.htm

Conference/Agreement: **TRIPS Agreement**

Date: 1 January 1995

Main Focus: Patent protection of agricultural chemical products. Protection of plant variety.

http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm

Conference/Agreement: **World Summit for Social Development**

Date: 5–12 March 1995

Main Focus: Re-examining the distribution of subsidies, among other things, between industry and agriculture, urban and rural areas, and private and public consumption.

http://www.iisd.ca/linkages/wssd95.html

Conference/Agreement: **Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 October 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks**

Date: 4 August 1995

Main Focus: Conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention.

http://fletcher.tufts.edu/multi/texts/ilm1542.txt

Conference/Agreement: **World Conference on Women**

Date: September 1995

Main Focus: Facilitate women's equal access to resources, employment, markets and trade.

http://www.undp.org/fwcw/daw1.htm

Conference/Agreement: **Code of Conduct for Responsible Fisheries**

Date: 31 October 1995

Main Focus: Establish principles for responsible fishing and fisheries activities.

Establish principles and criteria for the elaboration and implementation of national policies.

Facilitate and promote technical, financial and other co-operation in conservation of fisheries.

Promote research on fisheries.

Provide standards of conduct for all persons involved in the fisheries sector.

http://www.fao.org/fi/agreem/codecond/ficonde.asp

Conference/Agreement: **World Food Summit**

Date: 1996

Main Focus: Pursue participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices in high and low potential areas. Ensure that food, agricultural trade and overall trade policies are conducive to fostering food security for all through a fair and market-oriented world trade system.

Promote optimal allocation and use of public and private investments to foster human resources, sustainable food, agriculture.

http://www.fao.org/wfs/homepage.htm

Conference/Agreement: **United Nations Convention to Combat Desertification**

Date: Adopted in June 1994 and entered into force on 26 December 1996

Main Focus: Aims to promote effective action to combat desertification and protect drylands through innovative local programmes and supportive international partnerships.

Conference/Agreement: **Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade**

Date: September 1998

Main Focus: Promotes a shared responsibility and co-operative efforts between exporting and importing countries in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm. It contributes to their environmentally sound use by facilitating information exchange about their characteristics, by providing for a national decision-making process on imports and exports and by disseminating these decisions to exporting and importing countries.

http://pic.int

Conference/Agreement: **International Plan of Action**

Date: 1999

Main Focus: Conservation and management issues that have been identified by the international community as needing urgent attention.

Management of fishing capacity.

Incidental catches of seabirds in longline fishing operations.

Conservation and management of sharks.

Policy on illegal, unreported and unregulated fishing is in the process of elaboration.

http://www.fao.org/fi/ipa/ipae.asp

Conference/Agreement: **Millennium Declaration**

Date: September 2000

Main Focus: Eradicate extreme poverty and hunger and halve, between 1990 and 2015, the proportion of people whose income is less than US$1 a day.

http://www.developmentgoals.org/

Conference/Agreement: **Stockholm Convention on Persistant Organic Pollutants (POPs)**

Date: May 2001

Main Focus: Sets out control measures covering the production, import, export, disposal and use of an initial list of 12 POPs (chemical substances that persist, accumulate in the fatty tissue of living organisms and pose a risk of causing adverse effects to human health and the environment). Nine of the first 12 POPs subject to the convention are pesticides.

http://www.chem.unep.ch/sc

Conference/Agreement: **World Trade Summit in Doha**

Date: November 2001

Main Focus: Protection for small farmers in the developing world.

http://www.wto.org/english/thewto_e/minist_e/min01_e/min01_e.htm

Conference/Agreement: **International Treaty on Plant Genetic Resources for Food and Agriculture**

Date: November 2001

Main Focus: Conservation and sustainable use of plant genetic resources for food and agriculture.

http://www.fao.org/ag/cgrfa/News.htm

Conference/Agreement: **Draft Plan of Implementation for the World Summit on Sustainable Development Declaration**

Date: 2002

Main Focus: Provide access to agricultural resources for people living in poverty.

Build basic rural infrastructure, diversify the economy and improve transportation and access to markets to support sustainable agriculture and rural development.

Enhance in a sustainable manner the productivity of land and the efficient use of water resources in agriculture.

Enhance the participation of women in all aspects and at all levels relating to sustainable agriculture and food security.

http://www.johannesburgsummit.org/html/documents/prepcom4docs/bali_documents/draft_plan_1206.pdf

UN System Capacities in Agriculture

Agricultural development is central to the sustainable development agenda. The United Nations System and its specialized agencies address the challenges of agricultural development from differing perspectives—food security, nutrition, rural poverty, agriculture-environment linkages, broad-based rural development, mobilizing science for sustainable agriculture, or technical and policy assistance at regional levels—but with a common aim of increasing efficiency and effectiveness of the agricultural sector so that it can contribute fully to the overall sustainable development agenda.

The self-description of UN agencies' activities provided here gives an overview of UN involvement in agriculture and demonstrates the many perspectives that are taken by UN agencies in line with their respective core mandates. One of these, the Food and Agriculture Organization, is the specialized agency for agriculture. Others include agriculture as an entry point to a variety of activities in sustainable development. At the country level, and through instruments such as the Common Country Assessment, the UN Development Assistance Framework and Poverty Reduction Strategies, the UN System, including the World Bank, ensures that the whole of its work in agriculture is greater than the sum of its parts.

This is an indicative list of the UN entities most active in the field of agriculture, their main focus areas and some of their key initiatives. Its purpose is to give World Summit participants an overview of the work of the UN family as a whole as well as an indication of the breadth and depth of the organization's programme in this area. It is not a comprehensive or authoritative listing of all UN system activities in agriculture. The information was gathered primarily from the Web sites of the organizations featured. Any omissions or errors were inadvertent and are sincerely regretted.

Food and Agriculture Organization (FAO)

http://www.fao.org/

FAO was founded in 1945 with a mandate to raise levels of nutrition and standards of living, to improve agricultural productivity and to better the condition of rural populations. Today FAO is one of the largest specialized agencies in the UN System and the lead agency for agriculture, forestry, fisheries and rural development. It provides advice to governments, development assistance, information and a neutral forum where all nations can meet to discuss and formulate policy on major food and agriculture issues. FAO has a major role to play in assisting countries in implementing the provisions of the World Food Summit Plan of Action as well as in monitoring, through its Committee on World Food Security, overall progress in achieving the Summit's goals.

Its major goals and areas of work include the following:

- Contributing to the eradication of food insecurity and rural poverty: sustainable rural livelihoods and more equitable access to resources; access of vulnerable and disadvantaged groups to sufficient, safe and nutritionally adequate food; preparedness for, and effective and sustainable response to, food and agricultural emergencies.
- Promoting, developing and reinforcing policy and regulatory frameworks for food, agriculture, fisheries and forestry: international instruments concerning food, agriculture, fisheries and forestry, and the production, safe use and fair exchange of agricultural, fishery and forestry goods; national policies, legal instruments and supporting mechanisms that respond to domestic requirements and are consistent with the international policy and regulatory framework.
- Creating sustainable increases in the supply and availability of food and other products from the crop, livestock, fisheries and forestry sectors: policy options and institutional measures to improve efficiency and adaptability in production, processing and marketing systems and to meet the changing needs of producers and consumers; adoption of appropriate technology to sustainably intensify production systems and to ensure sufficient supplies of food and agricultural, fisheries and forestry goods and services.
- Supporting the conservation, improvement and sustainable use of natural resources for food and agriculture: integrated management of land, water, fisheries, forest and genetic resources; conservation, rehabilitation and development of environments at the greatest risk.
- Improving decision-making through the provision of information and assessments and fostering of knowledge management for food and agriculture: an integrated information resource base, with current, relevant and reliable statistics, information and knowledge made accessible to all FAO clients; regular assessments, analyses and outlook studies for food and agriculture; a central place for food security on the international agenda.

FAO works closely with UN System partners (notably with WFP, WB, IFAD, WHO, ILO, UNESCO, UNICEF, UNDP, UNFPA, UNEP, UNDCP and UNIFEM). The ACC Network on Rural Development and Food Security promotes collaboration at headquarters and in the field. The ACC Subcommittee on Nutrition, in which FAO participates, provides the natural framework for the establishment of a constructive set of collaborative relationships, in particular for promoting follow-up to the International

Conference on Nutrition. The Consultative Group on International Agricultural Research (CGIAR) system and academic and national research institutions are also key partners.

Building on longstanding co-operation with the World Bank, regional development banks and IFAD, FAO works to stimulate increased official development assistance flows in support of food security. The Inter-Agency Working Group on Food Insecurity and Vulnerability Information and Mapping Systems (FIVIMS) brings together the UN organizations, bilateral agencies and international non-governmental organizations (NGOs) most concerned with the various aspects of the issues that FIVIMS addresses. Collaborative arrangements exist with IFAD on rural poverty eradication and with WFP on food assistance programmes that complement longer-term development efforts. Considering that undernourishment is often also the result of disease, partnerships with WHO and UNICEF are crucial. Examples are co-operation with WHO in the operation of the Joint FAO/WHO Food Standards Programme and the Codex Alimentarius Commission, and co-operation with the International Plant Genetic Resources Institute and CGIAR, generally in the area of genetic resources for food and agriculture.

Consultative Group on International Agricultural Research (CGIAR)

http://www.cgiar.org/index.html

Created in 1971, the CGIAR is a 58-member strategic alliance (including 22 developing and 21 industrial countries) supporting a network of 16 Future Harvest Centers that mobilize cutting-edge science to promote sustainable development by reducing hunger and poverty, improving human nutrition and health and protecting the environment.

CGIAR research addresses almost every component of the agricultural sector—agroforestry, biodiversity, food, forage and tree crops, pro-environment farming techniques, fisheries, forestry, water, livestock, food policies and agricultural extension services, to name a few. Improvements in these areas promote growth and provide pathways out of poverty for poor people. More than 8,500 CGIAR scientists and staff conduct research in over 100 countries, generating global knowledge focused on local impacts. CGIAR research targets the special needs, crops and ecologies of poor farming communities world-wide.

Advocating science-based approaches to solving some of the world's most pressing developmental problems lies at the heart of the CGIAR's mission. All benefits of CGIAR research are kept within the public domain, freely available to everyone. CGIAR research supports the Millennium Development Goals, along with goals laid out in the Convention to Combat Desertification, the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture, and the Framework Convention on Climate Change. In 2001, CGIAR invested US$340 million in mobilizing science for the benefit of poor people.

Convention on Biological Diversity (CBD) — Secretariat

http://www.biodiv.org/programmes/areas/agro/default.asp

The CBD is the main international instrument for policy-making and implementation related to the conservation and sustainable use of biological diversity, as well as access to genetic resources and sharing of the benefits of their use. Its provisions apply to all types of biomes and ecosystems—inland waters, marine and coastal zones, agricultural areas, forests, drylands and mountains—as well as a number of cross-sectoral issues, such as alien species, traditional knowledge, economic and social incentives, technical and scientific co-operation, technology transfer, education and awareness-raising, taxonomy, ecosystem approach and indicators. It also addresses the safe transfer of genetically modified organisms through a distinct agreement, the Cartagena Biosafety Protocol, negotiated under the aegis of the Convention. A clearinghouse mechanism has been established within the Secretariat to promote and facilitate technical and scientific cooperation for the implementation of the objectives of the Convention. The work of the Convention is pursued through a network of bodies under the authority of the Conference of the Parties. The Secretariat, hosted by UNEP, supports these bodies, assists Parties in the implementation of decisions and co-ordinates the efforts of UN organizations and NGOs in support of the Convention.

Under the Convention, the Parties have adopted programmes of work in certain thematic areas, including agricultural biodiversity, which are aimed at promoting the objectives of the Convention in line with relevant decisions of the Conference of the Parties and contributing to the implementation of chapter 14 of *Agenda 21* (on sustainable agriculture and rural development). The Convention's International Initiative for the Conservation and Sustainable Use of Pollinators aims at promoting co-ordinated action world-wide to monitor the causes of pollinator decline and its impact on pollination services; to address the lack of taxonomic information on pollinators; to assess the economic value of pollination and the economic impact of pollination services; and to promote the conservation and the restoration and sustainable use of pollinator diversity in agriculture and related ecosystems.

International Fund for Agricultural Development (IFAD)

http://www.ifad.org

IFAD focuses on rural poverty reduction, working with poor rural populations in developing countries to eliminate poverty, hunger and malnutrition; to raise productivity and incomes; and to improve the quality of people's lives. The Fund's target groups are the poorest of the world's people: small farmers, the rural landless, nomadic pastoralists, artisanal fisherfolk, indigenous people and, across all groups, rural poor women.

IFAD's aim is to work towards enabling the rural poor to overcome their poverty—as perceived by the poor themselves—by fostering social development, gender equity, income generation, improved nutritional status, environmental sustainability and good governance. This mandate is described in IFAD's Strategic Framework for 2002–2006. Since its establishment, IFAD has financed 603 projects in 115 countries and independent territories, to which it has committed US$7.7 billion in grants and loans.

IFAD deploys its investments, research and knowledge management efforts, policy dialogue and advocacy on the attainment of three strategic objectives:

- strengthening the capacity of the rural poor and their organizations,
- improving equitable access to productive natural resources and technology, and
- increasing access to financial services and markets.

To build broad local ownership of the programmes it sponsors, IFAD works in partnership with others—borrowing-country governments, poor rural people and their organizations and other donor agencies. Its focus on local development has given it a role in bridging the gap between multilateral and bilateral donors on the one side, and civil society represented by NGOs and community-based organizations on the other. Extensive partnerships and global engagement enable IFAD to strengthen its catalytic role. Through careful monitoring and evaluation of the impact of its projects, the Fund identifies successful innovations for possible replication and cross-regional fertilization.

United Nations Development Programme (UNDP)

http://www.undp.org/

UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. It is on the ground in 166 countries, working with them on their own solutions to global and national development challenges. UNDP is one of the co-sponsors of CGIAR.

UNDP addresses the particular needs of farmers and pastoralists in dryland areas through its Drylands Development Centre in Nairobi, which supports countries affected by desertification and drought in the implementation of the Convention to Combat Desertification. The Centre supports National Action Programme processes with concept development and methodological guidance, technical backstopping, programme formulation, resource mobilization and capacity building.

An important initiative is "Harnessing Local Environmental Knowledge—Promoting Farmer Innovation Programme" in Kenya, Tanzania and Uganda. The pro-gramme's focus is on 'innovators'—local farmers who are experimenting and developing better land husbandry techniques themselves. Innovative techniques are docu-mented, visits between innovators are arranged, networks are developed to exchange ideas among them and then other farmers as well as extension agents and researchers are invited to observe and learn from the best innovations. In Kenya, the approach is being incorporated in the new national agricultural extension system.

The UNDP/Global Environment Facility (GEF)–funded project on "Coping with drought and climate change: best use of climate information for reducing land degradation and conserving biodiversity" supports sustainable livelihoods of drylands populations by promoting an integrated ecosystems management approach that hinges on better use of local and scientific knowledge on climate in farming and herding. It offers farmers and herders options for long-term drought management as well as emergency responses. (See http://www.undp.org/seed/unso/concepts&programs/ccp.htm.)

United Nations Environment Programme (UNEP)

http://www.unep.org/

UNEP's activities relevant to agriculture include those in chemicals, land, water and biodiversity. UNEP promotes sustainable agricultural practices through the development of policy and management tools for sound chemical management, and for sustainable land and water use, collaborating with UN System partners such as FAO and agriculture-relevant initiatives such as the UN Convention to Combat Desertification and Drought and the Convention on Biological Diversity, for which UNEP provides the Secretariat.

In the GEF, UNEP's role is to catalyse the development of scientific and technical analysis and advance environmental management in GEF-financed activities, including those related to the protection of biological diversity and to the prevention or reduction of releases of persistent organic pollutants. UNEP provides guidance on relating the GEF-financed activities to global, regional and national environ-

mental assessments, to policy frameworks and plans, and to international environmental agreements. One project assists up to 100 countries to develop their National Biosafety Frameworks so that they can comply with the Cartagena Protocol on Biosafety, developed under the Convention on Biological Diversity (http://www.unep.ch/biosafety/). Another is assessing, from a regional perspective, the damage and threats posed by persistent toxic substances, including some pesticides (http://www.chem.unep.ch/pts/).

From the industrial perspective, UNEP contributes to the better understanding of environmental impacts throughout the agri-food chain, including the trade of agricultural products. It develops responses to key issues through international environmental agreements, voluntary initiatives, policy guidance and information exchange and assists in the implementation of those responses. UNEP's Sustainable Agri-food Production and Consumption Forum provides a network of key information sources on agri-food production and consumption, related environmental impacts and practices to prevent or respond to these impacts (http://www.agrifood-forum.net/home.asp).

UNIFEM

http://www.unifem.org/

UNIFEM promotes gender equality and women's social, economic and political empowerment. It works to ensure the participation of women in all levels of development planning and practice and acts as a catalyst within the UN System, supporting efforts that link the needs and concerns of women to all critical issues on the national, regional and global agendas. UNIFEM's work focuses on strengthening women's economic capacity as entrepreneurs and producers, including in the agricultural sector, increasing women's participation in the decision-making processes that shape their lives and promoting women's human rights.

World Bank

http://lnweb18.worldbank.org/essd/essd.nsf/ruraldevelopment/portal

The Bank's approach to agriculture and rural development is holistic and multisectoral, focused on improving the well-being of rural people by building their productive, social and environmental assets. The Bank invested an average of US$5.1 billion annually from July 1998 through June 2000 in rural development, representing 25 per cent of total World Bank lending for the period. It is addressing agriculture as the core of the rural economy, a catalyst of the non-farm economy and the driver of rural economic growth, and promotes productivity, growth and competitiveness through:

- improved technology and increased access to information and modern communication required to speed up dissemination and advances in agriculture production technology;
- increased diversification and improved access to both domestic and global markets, which catalyse creation of rural employment and incomes in both the farm and the non-farm sectors;
- improved rural infrastructure such as building and maintaining rural roads and bridges, small-scale irrigation systems, post-harvest facilities (such as storage), processing and market facilities and so on;
- policy and institution reform, notably in input pricing and protection, in land reform, and in service delivery; and
- improved sustainable management of natural resources while enhancing the access of rural communities.

As part of the Bank's commitment to improving impact and ensuring sustainability of its activities for its clients, it has embarked on a significant decentralization programme whereby about 25 per cent of its staff live and work in client countries. The Bank also works with diverse stakeholders such as NGOs, private-sector entities, civil society, farmers' or producers' organizations and so on to achieve its mandate. Presently the Bank's Agriculture and Rural Department is engaged in over 30 partnerships and collaborative agreements.

In addition, the Bank is committed to improving access to first-rate agricultural science and technology by its clients; thus it is a major co-sponsor of the CGIAR and hosts its secretariat.

World Food Programme (WFP)

http://www.wfp.org/

The World Food Programme was established by parallel resolution of the General Assembly and the FAO in 1961 as the food aid organization of the UN System. The WFP provides aid primarily to low-income, food-deficit countries, assists in the implementation of economic and social development projects and meets the relief needs of victims of natural and other disasters. The Programme also administers the International Emergency Food Reserve established by the General Assembly, with a minimum target of 500,000 metric tons of cereals. As the largest international food aid organization in the world, WFP's operational expenditure in the year 2000 was US$1.49 billion. All contributions to the Programme are on a voluntary basis.

Regional Commissions

The Regional Commissions support a wide range of WEHAB activities: technical co-operation, policy advice, research, analysis, data/statistics, exchange of best practices, meetings, regional integration and co-ordination, publications, networking and training. See links below for specific areas of intervention.

Economic Commission for Africa (ECA)

Fostering Sustainable Development
http://www.uneca.org/programmes_home.htm

Economic Commission for Europe (ECE)

Environment and Human Settlements
http://www.unece.org/env/welcome.html
Agricultural Standards
http://www.unece.org/trade/agr/welcome.htm

Economic Commission for Latin America and the Caribbean (ECLAC)

Environment and Human Settlements
http://www.eclac.org/dmaah/
Natural Resources
http://www.eclac.org/drni/

Economic and Social Commission for Asia and the Pacific (ESCAP)

Environment and Natural Resources
http://www.unescap.org/enrd/
Population, Rural and Urban Development
http://www.unescap.org/pop/division.htm

Economic and Social Commission for Western Asia (ESCWA)

Agriculture http://www.escwa.org.lb/divisions/sectoral/agriculture.html
Environment Coordination
http://www.escwa.org.lb/divisions/environment/ecu.html
Natural Resources
http://www.escwa.org.lb/divisions/environment/nrs.html