

**NEW PARTNERSHIP FOR AFRICA'S DEVELOPMENT
(NEPAD)**

**Increasing food supply and reducing hunger:
strengthening national and regional food security**

**Extracts from the Nepad document:
Comprehensive Africa Agriculture Development Programme
(CAADP)
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EXECUTIVE SUMMARY

(From page 5—6)

0.1 Background

African Ministers of Agriculture met at FAO Headquarters in Rome, Italy on 9th June 2002 under the auspices of the FAO Regional Conference for Africa, which held the special follow-up session meeting to review an earlier draft of this document—the Comprehensive Africa Agriculture Development Programme (CAADP)—prepared by FAO in co-operation with the NEPAD Steering Committee. Extracts from the report of their meeting are produced as Annex 1. It can be seen that the Conference welcomed and endorsed the CAADP and agreed on the need to quickly operationalise it; it offered guidance to member governments on a wide range of aspects of operationalisation and action to revitalise African agriculture.

What follows is the full CAADP document after some adjustment to reflect some comments received on the version presented to the Ministers, including their desire to see research included as a pillar for action. Clearly, a programme on agriculture must remain living and open to continuing improvement and also be open to interpretation for each of Africa's sub-regions in order to best address that continent's diversity. This document therefore offers a broad frame of priorities from which more precise strategies and programmes can be derived for operationalisation.

The latest figures (for 1997-99) show that some 200 million people—or 28 percent of Africa's population—are chronically hungry, compared to 173 million in 1990-92. While the proportion of the population facing hunger is dropping slightly, the absolute numbers are rising inexorably. During the 1990s, 30 countries had over 20 percent of their population undernourished and in 18 of these, over 35 percent of the population were chronically hungry. As of 2001, about 28 million needed emergency food and agricultural assistance. To reflect its particularly difficult situation, the World Food Programme—which accounts for two-fifths of international food aid—has spent US\$12.5 billion (45 percent of its total investment since its establishment) in Africa and 43 percent in 2001.

In line with the rise in the number of hungry, there has been a progressive growth in food imports in the last years of the 20th century, with Africa spending an estimated US\$18.7 billion in 2000 alone. At the same time, food aid gives evidence of considerable external dependency: 2000 Africa received 2.8 million tons of food aid, which is over a quarter of the world total. Imports of agricultural products have been rising faster than exports since the 1960s and Africa as a whole has been a net agricultural importing region since 1980. Agriculture accounts for about 20 percent of total merchandise exports from Africa, having declined from over 50 percent in the 1960s. For Africa as a whole, the agricultural sector accounts for about 60 percent of the total labour force, 20 percent of total merchandise exports and 17 percent of GDP.

Until the incidence of hunger is brought down and the import bill reduced by raising the output of farm products which the region can produce with comparative advantage, there is no way in which the high rates of economic growth to which NEPAD aspires can be attained. People suffering from hunger are marginalised within the economy, contributing little to output and still less to demand. Investing in reducing hunger is a moral imperative but it also makes economic sense. Agricultural-led development is fundamental to cutting hunger, reducing poverty (70 percent of which is in rural areas), generating economic growth, reducing the burden of food imports and opening the way to an expansion of exports.

0.2 Areas of primary action

As currently formulated, the proposed initiatives under the NEPAD Comprehensive Africa Agriculture Development Programme (CAADP) focus on investment into three “pillars” that can make the earliest difference to Africa’s agricultural crisis plus a long-term pillar for research and technology. The three fundamental mutually reinforcing pillars on which to base the immediate improvement of Africa’s agriculture, food security and trade and trade balance are:

➤ **Extending the area under sustainable land management and reliable water control systems.**

Reliance on irregular and unreliable rainfall for agricultural production is a major constraint on crop productivity and rain fed agriculture is also often unable to permit high-yield varieties of crops to achieve their full production potential. Accordingly, it is of concern that for Africa the percentage of arable land that is irrigated is 7 percent (barely 3.7 percent in Sub-Saharan Africa) while the corresponding percentages for South America, East and South-East Asia and South Asia are 10 percent, 29 percent and 41 percent respectively. Furthermore, in Africa 16 percent of all soils are classified as having low nutrient reserves while in Asia the equivalent figure is only 4 percent; moreover, fertiliser productivity (expressed in terms of maize yield response) in Africa is estimated at some 36 percent lower than in Asia and 92 percent lower than in developed countries. Building up soil fertility and the moisture holding capacity of control, will not only provide farmers with opportunities to raise output on a sustainable basis but will also contribute to the reliability of food supplies.

➤ **Improving rural infrastructure and trade-related capacities for market access.**

Improvements in roads, storage, markets, packaging and handling systems, and input supply networks, are vital to raising the competitiveness of local production vis-à-vis imports and in exporting markets. Investment in these areas will stimulate the volume of production and trade, thereby assisting to generate an appropriate rate of return on needed investments in ports and airport facilities. In general, Africa urgently needs infrastructure improvements for development given that it faces the longest distances to the nearest large markets and a fifth of its population is landlocked. Its rail freight is under 2 percent of the world total, the marine freight capacity is 11 percent (much being foreign owned but registered for convenience in Africa), and air freight is less than 1 percent; similarly, its power generation capacity per capita is less than half of that in either Asia or Latin

America. In parallel with improvements in infrastructure within Africa, adjustments are needed in the promotion and support (including subsidy) policies of developed countries. Exporting countries within the region need to raise their capacity to participate in trade negotiations and to meet the increasingly stringent quality requirements of world trade.

➤ **Increasing food supply and reducing hunger.**

Africa currently lags behind all other regions in terms of farm productivity levels with depressed crop and livestock yields, and limited use of irrigation and other inputs. By accessing improved technology—much of which is simple and relatively low in cost—small farmers can play a major role in both increasing food availability close to where it is most needed, raising rural incomes, and expanding employment opportunities and contributing to a growth in exports. This requires improved farm support services, pilot projects targeted at poor communities and a supportive policy environment.

A sub-component of this pillar is for investment to respond to the growing frequency and severity of **disasters and emergencies** calls for some attention to rapid humanitarian interventions followed by rehabilitation before normal development can resume. IFAD recently observed that in addition to natural disasters, over 50 countries were facing or had recently undergone civil or cross-border conflicts, including some 20 poorest countries. As a result, emergency relief is an increasing share of development aid; IFAD also noted a troubling gap in the transition from relief to development—hence a need for corrective action.¹ Furthermore, achieving an immediate impact on hunger also requires that the production-related investments be complemented by targeted **safety nets**. Failure to attend to unpredictable needs and to providing safety nets can easily derail long-term development. However, the actuarial basis for dimensioning investment is too weak. For lack of better information, therefore, Africa at this stage needs to at least provide some nominal resource: a figure starting at some US\$3 billion annually is proposed, to decline progressively to US\$2 billion annually by 2015. Together the “investment” in safety nets and humanitarian/emergency food and agriculture would require some US\$34.5 billion between 2002 and 2015.

➤ **Agricultural research, technology dissemination and adoption**, the long term pillar, aims at achieving accelerated gains in productivity and will require: (a) enhanced rate of adoption for the most promising available technologies so as to support immediate improvement of African production by way of linking, more efficiently, research and extension systems to producers; (b) technology delivery systems that quickly bring innovations to farmers and agribusinesses so making increased adoption possible, notably through an appropriate use of new information and communication technologies; (c) renewing the ability of agricultural research systems to efficiently and effectively generate and adapt to Africa new knowledge and technologies, including biotechnology, needed to increase output and productivity while

¹ IFAD, 1998: IFAD Framework for bridging post-crisis recovery and long-term development. International Fund for Agricultural Development, Rome. Executive Board, 64th session, Document EB 98/64/R.8. From <http://www.ifad.org>

conserving the environment; and (d) mechanisms that reduce the costs and risks of adopting new technologies.

Pillar No 3: Increasing Food Supply and Reducing Hunger (*From page 24-26*)

For long, hunger has remained widespread in Africa. Despite gains in some countries, the threat of hunger remains a major peril for far too many people, with many adverse consequences for health and productivity of the population, reinforcing poverty. In Africa as elsewhere, the poorest and the most hungry tend to be one and the same people, living on the margin of survival and highly vulnerable to any shock. There is no doubt that eventually Africa will develop a diversified agricultural sector with commercial as well as smallholder farming. In the short-term, however, the need is for an immediate impact on the livelihoods and food security of the rural poor through raising their own production. Chapter 4 presents approaches to making an immediate impact on farmers' livelihoods through agriculture. It covers two things: (a) the need for Africa to deal with food security in the short-term perspective of disaster-induced food and agricultural emergencies; and (b) food security through enhancement of production.

Africa can itself do much to attain a higher level of food security but there is need for partnerships with other developing as well as industrialised countries and the multilateral system. Within countries, successful action requires partnerships among communities, governments and the private sector.

Emergency-related food security

Far too often, there is need for preparedness in Africa in the context of *emergency-related food security*. The number, scale and intensity of emergencies in Africa have all been increasing due to both natural disasters (especially droughts and floods) and human-caused calamities including civil strife and conflict. Wars and related factors have become the single most serious cause of food insecurity in much of the region.

Large numbers of Africans are displaced within or outside national borders by wars and productive lands are frequently flooded or rendered barren by drought; such extreme events can reverse overnight long-term agricultural development gains. Therefore, in looking at Africa's immediate needs for agricultural renewal, it is absolutely essential that the emergencies be kept in mind. The weakness of economies and of its institutions place Africa at a great disadvantage when calamity strikes. Thus, given its high indebtedness and current account deficit, Africa is obliged by emergency-related needs to divert its very scarce resources to food imports—it does so at a cost to investment in its future; Africa is a continent that is consuming without being able to create assets for the future. Therefore to ignore the emergency dimension would be a disservice to securing stable agricultural development in the region—Chapter 4 has a section on this area of need.

Associated with response to emergencies and their aftermath should be the creation of targeted safety nets by governments aimed at broadening access to food for persons who do not have the means of increasing their own food supplies, such as school children.

Improvement of production

Food security can also be secured through *improvement of production*. The second part of Chapter 4 presents one approach towards promoting vigorous large-sale community-based programmes to improve the performance of small farms throughout the continent. It draws mainly upon the example set by the Special Programme for Food Security (SPFS), launched by FAO as a means of achieving and sustaining a higher level of household and national food security. In each country, the SPFS is planned within the broader vision of a National Strategy for Food Security and Agricultural Development. Thus the SPFS approach complements and builds upon already existing strategies and programmes for agricultural development and food security developed by African governments and regional organisations. It is implemented in two interrelated Phases. As detailed in Chapter 4, Phase I aims at enabling households and communities to attain higher levels of food security and better livelihoods, initially on a pilot scale but quickly followed by progressive scaling up. Phase II addresses food security issues at national level through creating an enabling policy and institutional environment for food security and supporting the preparation of bankable projects.

The SPFS recognises the importance of respecting economic fundamentals: African production must be competitive as it makes little sense to have high cost products whose markets are easily undermined by cheaper imports. For this reason, SPFS-type interventions need complementary investments in infrastructure, water and land management that can boost yields, reduce unit production costs and contain the cost of storage, transport and marketing—themes which are covered in Chapters 2 and 3. The approach seeks to reduce both weather-related and other environmental risks as well as economic risks, all of which have a significant depressing impact on the level private investment in the agricultural sector.

Chapter 4 recognises that raising the output of the small farmer sector depends on the decisions of millions of household throughout the continent and, in such a situation, the role of governments should be to provide a policy and incentive framework that is conducive to agricultural growth. With this in place, much of the investment in raising production will be made by the farmers themselves. It contrasts the situation of the African farm with other regions in farm productivity: in 2001 its cereal yield averaged 1230 kg/ha for the European Union. It makes similar comparisons in use of irrigation; use of yield-enhancing inputs (such as fertilisers, improved seeds, vaccines and others).

The SPFS approach promotes the view that food security does not mean just subsistence food sufficiency but also implies addressing the other underlying causes of persistent rural poverty. Thus, while it may appear to emphasise production, this is not in exclusion of demand considerations in that the incentive for continuing output growth is the “market”. It is in this latter context that national programmes can benefit from complementary food security interventions at

regional level that can facilitate trade-related capacities for improved market access, the development of common standards and the diagnosis and control of transboundary pests and diseases. Some of the market issues are dealt with in greater detail in Chapter 3.

Regional Programmes for Food Security (RPFS) offer measure to expand intra-regional trade and competitiveness in external markets, to assist in creating improved conditions for the sustainable growth of agriculture, including through trade facilitation, harmonisation of policies and underpinning of national SPFS, especially in areas of accelerated technology development and information, to ensure sustainable use of cross-boundary natural resources, to provide for control of transboundary pests and diseases. At Present, Africa's Regional Economic Organisations have developed and are seeking funding for PRFS. Regional cooperation in support of food security is an area where NEPAD, in close collaboration with Regional Economic Organisations, can make significant early contributions.

Based on the experience acquired so far in implementing the Special Programme, average costs to be incurred by the public sector to ensure food security for a small farm household can be estimated US\$500. The breakdown varies according to the different options facing farm households: typically it includes around US\$350-400 per family for on-farm investments, particularly in land and water management, as well as inputs including young stock, fertilisers, seeds and equipment (to be repaid into revolving funds) and thereby ensure sustainability. Some US\$35-85 is required for off-farm support, including technical services (backed in many cases by South-South Co-operation), participatory constraints analysis and inputs into policy reform. A further US\$65 equivalent per family can be allowed for complementary food security investments at a regional level.

Even if individual intervention can be at community scale, to have a significant impact on reducing poverty and hunger, programmes to *increase food supply and reduce hunger* should be collectively massive in scale. For Africa, the intention adopted in Chapter 4 is to raise the performance of some 15 million rural households (affecting the livelihoods of some 100 million people) by 2015 which would require some \$7.5 billion. Of this, \$6.5 billion would be for national level and \$1 billion for regional action programmes. The distribution of costs between regions is based on country-level data on the number of undernourished, given in the FAO Report "The State of Food Insecurity 2001". The effectiveness of such programmes for on-farm development or related improvements at community level is dependent on the investments proposed in productive and transport and communications infrastructure in Chapters 2 and 3 of this document.

CHAPTER 4

Increasing Food Supply and Reducing Hunger: Strengthening national and regional food security

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4.1 Introduction

About one third of Sub-Saharan Africa's population remains chronically hungry.² As long as this situation continues, it is unlikely that the Region can attain the high rates of economic growth to which the New Partnership for Africa' Development (NEPAD) rightly aspires. The right of all people to have access to adequate food is recognised in international legislation and getting rid of hunger is moral imperative. But it also makes economic sense to eradicate hunger, for as long as people are undernourished, they cannot achieve their full potential: they remain prone to ill health, their learning ability is compromised and their capacity for productive work curtailed. Ill health due to chronic hunger has severely reduced productivity in Africa and a recent study has shown that per caput GDP may have been halved relative to its potential if under nourishment had been eliminated.³

The hungry are the poorest of the poor, and hence reducing hunger must be among the first steps towards the achievement of the Millennium Development Goal to halve poverty by 2015, which is taken as a reference point for NEPAD. All African states subscribed to the global commitment of the World Food Summit (WFS) in 1996 to halve the number of hungry people by 2015. The presence of very large numbers of poor and hungry people, marginalised from the work force and from markets, not only acts as a brake on economic growth and development but, if not addressed, provides a breeding ground for social instability and conflict.

NEPAD gives high priority to agriculture and food security. This chapter briefly reviews the current state of food security in the continent and the extent to which progress is being made towards the achievement of the WFS goals. It then refers to the need, as part of the quest for improved food security and reduced poverty, for vigorous large-scale community-based programmes to improve the performance of small farms throughout the continent. In examining the implications of embarking on such programmes, it looks to the example of the Special Programme for Food Security (SPFS) launched by FAO as one approach to achieving sustainable food security. The chapter then examines how an expansion of action based on SPFS concepts could contribute to the achievement of NEPAD goals at both national and regional levels. Tentative estimates of the cost of such a programme are also presented.

² FAO.2001. State of Food Insecurity in the World (SOFI).

³ FAO.2001. Economic and Social Development Paper No.147, Rome. Under nourishment and Economic Growth: the efficiency cost of hunger;; by J.L. Arcand.

The chapter also focuses on the role of small farmers in achieving higher levels of food household and national food security is not intended to imply that there is not a role also for larger-scale farms in Africa's future agricultural development. While such development, usually led by the private sector, can contribute importantly to economic growth, it tends to have fewer linkages within the rural economy and hence less of a multiplier effect than development driven by small-scale farmers.

While raising the output of small and marginal farmers can have a significant impact on hunger and poverty, this needs to be complemented by measures to widen food access through a combination of redistributive measures adopted within extended families and communities and accurately targeted food safety nets supported by governments.

In making reference to the SPFS at national and regional levels, it is necessary to stress that African governments and regional organisations have their own strategies and programmes for agricultural development and food security. Many of them have established partnerships with FAO to adopt the SPFS as a framework for implementing these strategies while others have adopted alternative approaches to achieving essentially the same goals. In some cases, countries have decided to move forward with input-intensive agricultural development, as in the case of the Sasakawa Global 2000 programme that has demonstrated that high crop yields are attainable throughout much of the continent. Others are collaborating with the World Bank in community-driven development (CDD) programmes in which agricultural development is linked to a range of investments in rural development at community level. With bilateral assistance, some countries are engaged in processes aimed at bringing about sustainable improvements in the livelihoods of their rural populations. IFAD, which by mandate, focuses on the poor, has for long invested in community efforts to achieve higher productivity. As of 2001, IFAD had invested in Africa since 1977 (25 years) some US\$3.5 billion in 318 projects—totals having been: Near East and North Africa = US\$0.98 billion; Eastern and Southern Africa = US\$1.2 billion; Western and Central Africa = US\$1.3 billion.⁴

What is evident is that the massive attack on rural poverty and hunger which is required offers ample opportunity for partnerships among Africa's own institutions as well as between Africa and the international community. To the extent that governments decide to adopt the approach pioneered by the SPFS, this also depends on partnerships between governments and civil society, including effective participation by rural communities.

⁴ IFAD Strategies for rural poverty reduction (separate ones for the three IFAD Regions of Africa) <http://www.ifad.org/operations/regional/2002/> Some successes have occurred but this investment even if matched by counterpart funding remains limited: if Africa population assumed at 700 million average, the investment has averaged US\$5.00 per caput and if population has averaged 600 million, it is US\$5.83 per caput. This is equivalent to US\$0.20—0.23 per caput per annum respectively.

4.2 Food Insecurity in Africa

Between 1990-92 and 1997-99, the countries of Sub-Saharan Africa (SSA) succeeded in increasing average per capita dietary energy supply from 2120 to 2190 kcal per day, that is by 3.3 percent during the period. This is a significant achievement, given the high rates of population growth. In spite of this, however, in Africa as a whole the number of undernourished people rose from 173 million in 1990-92 to 200 million in 1997-99 (Table 22). Some 97 percent of the continent's food-insecure live in the countries of Sub-Saharan Africa (SSA) where over one third of the population (34 percent) is classified as undernourished.

There has been some decrease in the number of undernourished in West Africa (from 37.6 million to 32.1 million) but in all other regions the number has risen during the 1990s. Declines in the number of undernourished inhabitants were registered in only 10 SSA countries during the period. At the end of the period 30 countries had over 20 percent of their population undernourished: in 18 of these countries over 35 percent of the population were chronically hungry. Moreover, as of early 2001, some 28 million people in 21 SSA countries were facing food emergencies, as a result of droughts, floods and strife.

Such a very widespread hunger is a source of enormous concern. It is estimated that if self-sufficiency ratio in Sub-Saharan Africa is to stay the same in 2015 as in 1995-97 (about 85 percent), the sub-continent will have to meet 118 million tons of its projected needs of 139 million tons of grains through increased production in the region. These stark realities highlight the sheer scale of the problem.

It is also possible, however, to look at this food gap also as a tremendous opportunity. The existence of such large shortfalls provides a potential market for small farmers, amongst whom poverty and hunger are concentrated, to expand their output and improve their livelihoods, in turn enabling countries to reduce their import dependence. For this to happen in a situation of increasingly liberalised international markets, however, farming within the region must become more competitive and measures must be put in place to broaden food access through safety nets targeted on families who are unable to meet their food needs through the market alone.

Raising the productivity and output of the agriculture sector depends on the decisions of millions of households throughout the continent and, in such a situation, the role of governments should be to provide an economic policy and framework as well as a legal and institutional set-up that are conducive to agricultural growth, including well-functioning factor and product markets. With such a framework in place, the farmers themselves can make considerable contributions to the required investment in raising production. Around 70 percent of the population in Africa lives in the rural areas, and the potential exists to increase crop, livestock, fisheries and forestry output and improve rural livelihoods.

Improvements in the performance of the agriculture sector will start from a low base. Africa currently lags behind all other regions in agricultural productivity. For example in 2001, cereal yield averaged in Africa 1230 kg/ha for Asia, 3 040 kg/ha for the European Union. This reflects the limited use of irrigation mentioned earlier but also of yield-enhancing inputs such as fertilisers and seeds of improved varieties. A strong positive relationship exists between the level of fertiliser use and cereal yield as long as adequate organic matter levels are maintained in the soil. The use of fertiliser is about 19 kg/ha per year, compared to 100 kg/ha in East Asia and 230 kg/ha in Western Europe. In terms of technology use, few farmers yet apply integrated pest management methods or any other pest control.

No systematic records are kept on the use of improved seeds but indications are that about 20 percent of cropped area in Africa and South and Central America is sown to new varieties, while the rest of the area is sown to traditional varieties. With regard to livestock, while Asia uses about 50 percent of the global market value of animal health products, including vaccines, Africa claims less than 3 percent. Nomadic groups dominate the livestock sector, making the servicing of the sector difficult and expensive. Similarly, aquaculture and artisanal fisheries are under-developed in relation to their potential in most countries of the continent.

Furthermore, Africa still faces the problem of high post-harvest losses for lack of affordable storage, processing and other treatment and because of weak linkages with markets. Accordingly, the net food availability from an already production is reduced further.

4.3 Strategies to Reduce Food Insecurity

There is an emerging consensus that (a) economic growth is essential for sustainable poverty reduction, provided that socially acceptable resource redistribution mechanisms are put in place to combat poverty, (b) as long as large numbers of people remain hungry, the quest for economic growth will remain illusory, and (c) in most developing economies, agricultural growth has a stronger positive impact on poverty and hunger reduction in both rural and urban areas than growth in other sectors, because of its potentially strong multiplier effects due to numerous backward and forward linkages. In a continent where significant development resources from both local and external sources are often diverted to emergency needs for food, one element of the strategy must be addressing the emergencies. Simultaneously, interventions should promote higher productivity.

4.3.1 Preparedness and Response Capacity to Emergencies

The weakness of economies and of its institutions place Africa at a great disadvantage when calamity strikes, something that has become all too frequent. The number, scale and intensity of emergencies in Africa have all been increasing due to both natural disasters (especially droughts and floods) and human-caused calamities including civil strife and conflict. Wars and related factors have become the single most serious cause of food insecurity in much of the region. These problems all dislocate production and some affect even Africa's long-term capacity to recover. As

stated elsewhere in this report, in 2001, about 28 million people in Africa were facing food emergencies, of whom some 25 million needed emergency food and agricultural assistance. In 2000 Africa received 2.8 million tons of food aid, which is over a quarter of the world total. Text box 7 gives a picture, based on information from several external agencies. Less striking but still overwhelming in its magnitude and speed of spread is the HIV/AIDS pandemic. The impact of this pandemic on the agriculture may be at least as severe as that from natural emergencies and could well be more systematically damaging in the long term.

In looking at Africa's immediate needs for agricultural renewal, it is absolutely essential that the emergencies be kept in mind: when large parts of the population are displaced within or outside borders or productive lands are flooded or rendered barren by drought, long-term agricultural development gains can be reversed overnight. Furthermore, given its high indebtedness and current account deficit, Africa is obliged to divert its very scarce resources to food imports. It does so at a cost to investment in its future; Africa is a continent that is consuming without being able to create assets for the future. Therefore to ignore this dimension would be a disservice to securing stable agricultural development in the region.

It should be remembered that many of the present day problems facing African agriculture are rooted in the decline over a long period of time in public investment in the basic foundations of growth such as rural infrastructure (Including irrigation). research and development (R&D) and human resource development (HRD). as well as political instability, poor governance, resource constraint, and capacity limitation. In addition, about half of Africa's countries and one third of the continent's land area faces accelerated degradation of the natural resources, associated closely with natural calamities. In the difficult situations caused by resources degradation, these calamities easily trigger disasters, which undermine further the countries : ability to regain sustainable development.

According to the latest FAO Medium Term Plan,⁵ “Notwithstanding the importance of further improving emergency responses, there is general agreement on ensuring that disaster risk management is an integral part of development,...” adding that “Food and agriculture recovery, particularly in post-conflict situations, requires fully co-ordinated interaction between domains such as institutional and capacity-building, restoration of productive assets and livelihood systems, and re-establishment of agriculture services, market infrastructures and trade networks”. Thus, short-term responses to emergencies must be accompanied by simultaneous attention to building the basic foundations of long-term growth.

⁵ FAO. 2000. Disaster Prevention. Mitigation and Preparedness and Post-Emergency Relief and Rehabilitation. In: 2002-2007 Medium Term Plan. Document CL 119/7 2000.

Text Box 7: Africa Disasters and Emergencies with Food and Agriculture implications—insights from selected international organisations

Africa has somewhere around 10 million people displaced by armed conflict. For North Africa, no situation seems to call for significant external food and agriculture intervention. In West Africa, there were displaced persons totalling some 2.36 millions due to conflicts. In Central Africa civil wars continue. Seven of Africa's twelve wars/conflicts are in East Africa (which includes the Great Lakes and the Congo wars) and they have displaced some 8 million people. In Southern Africa, a severe maize deficit is the main problem, worsened by natural disasters (e.g. the Mozambique floods). HIV/AIDS infection rates are very high and amount to a long-term emergency for agriculture. There are also some refugee problems. Responding to Africa's food and agriculture-dislocating emergencies takes the combined energies of many players. Responses go well beyond actual food and seeds delivery to the long-term institutional strengthening for action at community and higher levels. Brief insights are given here from the World Food Programme (WFP), the International Fund for Agricultural Development (IFAD), the International Federation of the Red Cross and the Red Crescent Societies (IFRCRCS) and FAO.

The Rome-based United Nations agencies or food and agriculture: FAO, IFAD and WFP operate with synergy: FAO collects and publicises forward looking early warning work and food insecurity and vulnerability needs assessment and mapping. FAO and WFP mount joint assessment missions to emerging crisis areas and feed the international community with timely information, alongside data collected by others such as the United States Famine Early Warning System (FEWS).

WFP: This UN agency combines attention to feeding after emergencies with support to rehabilitation and to enabling people dislocated by disasters to regain long-term growth—it thus deals with both emergencies and development. For rehabilitation, it offers *Protracted Relief and Recovery Operations* for up to 3 years to cover the later stages of an emergency, to help re-establish and stabilise livelihoods and household food security and to progressively introduce development activities. Since 1963, the WFP has invested a total of US\$12.5 billion in Sub-Saharan Africa—about 45 percent of the world total of some US\$27.8 billion. In 2001, WFP accounted for some two-fifths of global food aid totals. In volume terms, that year's total was nearly, 4200 tons. of which Africa received 43 percent. For the same year, WFP had estimated operational expenditures of nearly US\$1.62 billion [US\$1.40 billion on relief activities. the rest on development], of which about 52 percent in sub-Saharan Africa alone. In per capita terms, this amounts to US\$1.74 in that region, the highest in the world. For operational planning and targeting, WFP has developed a Vulnerability Analysis and Mapping (VAP) system.

IFAD: targets its support to post-crisis recovery in order to correct the gap frequently observed between emergencies and long-term development. IFAD teams up with the sister UN agencies in Rome but also with UNHCR, with UNDP (for grant contributions) and with non-UN parties. Thrust areas include (a) recovery of agricultural productivity and resumption of rural development processes—including reconstruction; (b) on-farm and off-farm income generation activities; (c) resources conservation such as soil and water; (d) capacity building.

FAO: operates the Global Information and Early Warning System (GIEWS) and the Emergency Prevention System for Plant and Animal Pest and Diseases (EMPRES). Contributes to providing emergency seeds, tools, other input., for early, resumption of productive agriculture after emergencies. This type of assistance and correction of agricultural systems affected by, disasters has become the fastest growing part of the FAO field programme. As of 2002. FAO had emergency projects worth US\$62.5 million, of which some US\$58.6 million (94 percent) was for Africa.

IFRCRCS: The Red Cross and Red Crescent Societies actions are highly multi-faceted. Normally, the IFRCRCS mobilises resources through annual appeals for cross-sectoral needs (such as funds, general capacity building, co-ordination of actions etc) but also for specific disasters/emergencies and for sub-regions and regions. In Africa, the IFRCRCS sub-regions are: North Africa; West Africa; Central Africa; East Africa; and Southern Africa. For its 2002 Africa appeal. the IFRCRCS seeks some US\$2.14 billion for overall “Disaster Response” of which only US\$0.26 billion for food security.

The paragraphs that follow outline actions related to emergencies. despite lack of a single, organised source of information on the extent of emergencies and their effect on African agriculture. Estimates prepared for the OAU in year 2000⁶ suggest investments between 1998 and 2010 of some US\$60 billions or an annual level of some US\$5 billions. The scope could include several main lines of inter-linked activity related to emergencies: response to emergencies., prevention and preparedness; post-emergency relief and rehabilitation and the establishment and operation of effective information and early warning systems. Although this US\$5 billions annual net need provides orders of magnitude on resource requirements for coping with disasters and emergencies in the food and agricultural sector. much detailed research is needed to prepare better estimates. For the purposes of this document, therefore, a more conservative initial US\$3 billion per annum is used. to also include safety nets. NEPAD will need to conduct an early study of emergency needs for investment and operations.

Response to emergencies: Africa's priorities must include taking on as much as possible the functions for which the continent is entirely dependent at present on external relief organisations in the United Nations (WFP. UNHCR) and outside it such as the Red Cross and Red Crescent Societies plus a large number of Charities and NGOs from developed countries.

Prevention and preparedness: it is important to develop information on disasters affecting the food and agriculture sector. and their causal factors and estimation of their impacts and long-term effects. It is important to include identification of high-risk groups as well as to develop strategies that can reduce negative impact. building upon peoples' own coping mechanisms. Under this come the following sub-elements:

- strategic Regional. Sub-regional reserves (buffer stocks for emergency);
- capacity building_for forecasting. prevention and mitigation of adverse effects of natural disasters, including drought;
- improving water management;
- capturing and storing rainwater for use in times of drought through simple technologies—water harvesting and ground water recharge;
- combating desertification.

These elements are further elaborated in text box 8.

⁶ FAO Contribution towards a strategy for sustainable agricultural development and food security in the member countries of the Organisation of African Unity (OAU) with special reference to climatic emergencies. The net estimate for emergencies is derived by elimination after exclusion from a total of US\$193 billions (1998-2010) of the following costs: irrigation (US\$21.4 billions); livestock development (US\$23.1 billions); agro-industry (US\$55.9 billions). These estimates cover 43 OAU countries (out of a total of 53). Reported in : Overview and key issues in agriculture. New Partnership for Africa's Development (NEPAD). Food and Agriculture Organizations of the United Nations (FAO). NEPAD Work In Progress Review Workshop, Benoni South Africa. (24-27 January, 2002).

Post-emergency relief and rehabilitation: Africa similarly needs to increase its participation in activities that are hitherto almost completely donor-dependent. The challenge will be to integrate piecemeal interventions by a wide variety of official and NGO partners into a seamless process that bridges emergency response with rehabilitation and thereafter long-term development.

Information and early warning systems on food emergencies: for any needs to be better anticipated and for interventions to be more effective. *such systems* are a must for Africa. These systems can be associated for institutional convenience as appropriate with other national development monitoring and evaluation systems and linked internationally with arrangements such as the FAO-based global information and early warning system (GIEWS). Such arrangements facilitate co-ordinated response to emergencies.

4.3.2 Programmes to enhance Food Security through Production

It is also recognised that an expansion in agriculture, particularly through increasing smallholders' output of staple foods, can contribute significantly to reducing the incidence of under-nourishment by raising local food availability, especially in poor families. But smallholder production of non-food farm products, for both domestic and export markets can also have a positive impact on rural poverty through raising farm incomes and expanding employment opportunities. Rapid progress towards the eradication of hunger, however, requires targeted complementary measures to broaden the access to food by persons who are either unable to meet their dietary requirements through their own production or lack the means to purchase it. Such translation of unsatisfied needs for food into effective demand not only improves nutrition (a valuable end in itself) but could also stimulate domestic agricultural growth.

Whether farmers will expand the area cultivated or intensify, production by adopting improved farming methods depends on their perceptions of the potential benefits and risks and their capacity to adopt intensified production systems. The role of governments is to provide a policy and incentive framework as well as an institutional and legal set-up that is conducive to agricultural growth, to put in place infrastructure that enhances the competitiveness of agriculture in domestic and international markets, and to ensure the reliable provision of support services, especially for extension, research and rural finance, that open the way for the uptake of improved technologies. If such an enabling environment is created, much of the investment in raising output can be made by the farmers themselves although other economic agents also have important roles to play in agriculture-related activities.

These strategic considerations lie at the heart of the SPFS. They also underpin other community-based agricultural and rural development initiatives supported by other international agencies and NGOs. Such programmes are based on the assumption that much of the action required to improve levels of food security lies within the power of individual countries and should be led by them. Lasting solutions, however, have important regional dimensions, related to intra-regional trade, food safety standards, harmonisation of policies, the control of transboundary pests and diseases,

and technology development. Africa's regional bodies are developing and seeking funding for Regional Programmes for Food Security (RPFS) that can complement national SPFS initiatives. NEPAD, as a pan-African initiative, has particular importance as a framework for such multi-country aspects of food security.

A programme that attempts to increase and stabilise, in a broad and sustainable manner, food output and income through output intensification and diversification as well as through actions aiming at reducing weather and other environmental as well as economic risks, will significantly contribute to food security and poverty reduction. The achievement of this twin objective assumes an in-depth analysis and resolution of economic, social, institutional and legal constraints prevailing at the local and national levels. To successfully implement such a programme requires a clear division of labour and responsibility among stakeholders. This will also help determine the level of efforts different partners—government, private sector, farmers, and development partners—will have to mobilise.

Text Box 8: Areas of Focus to Combat Africa's Food and Agriculture Emergencies

Strategic regional, sub-regional reserves (buffer stocks for emergency): Regional and/or sub-regional food security reserves, which comply, with the World Trade Organisation rules, could contribute to enhancing capacity for timely delivery of food supplies to affected populations in emergencies. Existing organisations could provide an institutional framework for such reserves adapted to the conditions in each sub-region. Alternatives to establishment of regional or sub-regional food security reserves could include:

- mutual co-operation to be brought into action during emergencies such as food loans repayable in kind, and assistance in providing transport facilities;
- co-ordination of national stocks with provisions to keep a specific percentage over and above the national needs to meet regional commitments;
- mutual assistance during emergencies, including provision of food or cash grants, currency or food loans, sale of food to the affected country or establishing other modalities, such as crop or price insurance schemes agreed upon.

Capacity building for forecasting, prevention and mitigation of adverse effects of natural disasters, including drought: Main elements include (a) meaningful early warning of natural calamities through environmental databases of benchmark information and capacity to use them; (b) capacity for early rehabilitation of production capacity in case of natural and man-made disasters is important although greater emphasis should be on prevention.

Improving water management: Almost one-third of Africa is too dry for rainfed agriculture, and countries in this area must look to irrigation as the only reliable means of increasing agricultural production and making it more predictable. Lessons must be learned from many irrigation schemes that have failed in Africa and future actions should concentrate on lowering the cost of irrigation through:

- Simple improvements to traditional swamp and flood irrigation;
- Major programmes to locate ground and surface water suitable for irrigation;
- Development of support for farm- and village-led schemes;
 - Rehabilitation of modern irrigation schemes; and
 - Grant-aided development of large-scale irrigation where there is no potential for smaller and cheaper schemes.

Capturing and storing rainwater for use in times of drought: Simple technologies for water harvesting and ground water recharge could include: (a) building upon existing indigenous water harvesting techniques throughout arid and semi-arid regions, introducing suitable techniques. (b) promoting widespread adoption of water harvesting techniques by the local population through motivational campaigns, training and extension work. Furthermore, in a region prone also to **flooding**, attention must also go to long-term prevention (through upstream vegetation management) and immediate assistance in relocation and reactivation of farming in affected areas.

Combating desertification: Dune stabilisation and other conservation techniques can be cheaply applied but medium and long-term action requires attention to the social and economic causes of the problem. Medium term action often involves re-vegetation such as through agroforestry and the overall regeneration of plant cover in the landscape. Zero tillage technologies and integrated soil treatment processes can help to improve the collection and stocking of rainwater while sub-soiling and micro terracing can also be important.

Emergency prevention systems (EMPRES) for plant and animal pests and diseases: the effective prevention of the diseases that hamper livestock production and trade is possible through applied research, enhanced early warning and early and co-ordinated reaction. In this regard FAO-initiated Emergency Prevention Systems (EMPRES) for plant and animal pests and diseases is of relevance.

4.4 Africa and the SPFS

The member countries of FAO have adopted SPFS in recognition of the need for a programme that empowers poor rural communities to raise farm output and income and improve local food security. It is described briefly below as an example of the kind of approach that needs to be a central element of any programme to achieve the World Food Summit goal of halving the number of undernourished by 2015.

The SPFS was launched in 1994 and the World Food Summit endorsed the programme concept in November 1996. The broad objective of the SPFS is to assist developing countries, in particular the Low-Income Food-Deficit Countries (LIFDCs), to improve their household and national food security on an economically sound and environmentally sustainable basis, while retaining the goal of enhancing social equity and the livelihoods of women and poor households. It aims to achieve this mainly by empowering groups of small farmers to achieve rapid increases in productivity and reductions in year-to-year variations in output, thereby contributing to better overall access to food within their families, their communities and local markets.

Formulated and implemented under national leadership, the SPFS is intended to be an integral component of the national food security strategies adopted by many countries after the World Food Summit. To date the SPFS is operational in 68 countries of which 38 are in Africa: it has been formulated or is under formulation in another 16 countries, of which 6 are in Africa.

The SPFS is a flexible programme that responds to local opportunities and embraces progressive and iterative learning and reorientation processes. It does not use the FAO framework as a blueprint but models itself after it and draws upon the accumulated experience of FAO. At national level, the SPFS is owned by that country, is adapted to its own realities and integrated into its strategies. Ownership is evidenced by the considerable in kind and cash investments made by developing countries, some of which have established large trust funds using their own resources. Voluntary donor contributions have also been significant and FAO has been a frequent broker in securing such collaborative agreements between developing and developed countries.

The SPFS is implemented in a stepwise fashion, starting with pilot activities initially at a few locations (Phase I) which are progressively scaled up with the aim of gaining pilot experience in all major agro-ecological zones in a country (Phase I extension). Building on this experience and that of other relevant programmes and projects, governments are invited to take the lead in formulating and launching a national-level food security programme (Phase II).

Phase I involves the engagement of self-selected groups of small farmers at a limited number of sites. As experience is gained and good practices are developed they are then replicated over an increasing number of sites. Depending on locally identified needs and opportunities, this first phase generally consists of four complementary components which touch on most aspects of agricultural development, viz.:

- *Water and soil management*: measures to address moisture limitations and excesses through low-cost irrigation, water harvesting and drainage methods, and through land husbandry systems which improve soil physical, chemical and biological conditions and avoid soil erosion.
- *Raising productivity*: actions to raise land or labour productivity on a sustainable basis, including improved varieties adapted to local conditions, integrated plant nutrients and pest management systems (with a minimum dependence on purchased inputs), and improved post-harvest technologies.
- *Farm diversification*: measures to improve household nutrition and income and to protect against risk, initially focused on short-cycle livestock such as chickens, sheep, goats, rabbits, bees etc., with an emphasis on enabling farmers to prevent diseases and improve animal nutrition: where appropriate, support is also given to artisanal fisheries and aquaculture. Text box 9 refers to non-farm livelihood opportunities that may offer important complements to farm income.
- *Participatory study of socio-economic constraints*: that restrict farm-level profitability and food security, prevent the emergence of greater social equity and impede the implementation of the programme on a wider scale. This process, combined with participatory, performance assessment studies, provides an input into programme impact monitoring and evaluation, encourages the identification of self-reliant solutions and feeds into the formulation and adjustment of the programme's second phase as well as national strategies.

The emphasis on water control is particularly relevant to Africa in that it uses irrigation least of all regions and that, unless it combines an increase in the area irrigated with efficient water management practices, it has little prospect of raising productivity. It goes without saying that investing in irrigation becomes more worthwhile if productivity is also enhanced by application of improved technologies and yield-enhancing inputs. Text box 10 profiles one important input—farm energy—that is important for enhancing farm output and livelihood contribution potential of agriculture.

As the programme is extended to include more communities, the range of components and products also tends to broaden, to respond to the growing aspirations of participants and to ensure that constraints to expanded output (for instance relating to input supply, storage, marketing and financial services) are systematically addressed. Communities are encouraged to address problems of inequitable access to food within the community, focusing on vulnerable members including women (especially widows), children (especially orphans) and old and sick people. Such an inclusive approach to food security may lead to the creation of community managed projects such as school garden programmes.

The implementation of pilot activities increasingly benefits from the South-South Co-operation initiative (SSC), launched in 1996 to allow recipient developing countries to benefit from the relevant experience of more advanced developing countries. To date countries in Africa have signed

22 of the 26 SSC agreements linking countries in Africa, Asia, and Latin America and the Caribbean.

On-site monitoring is showing that field activities have already generated some encouraging results with farmers, both men and women, learning and adopting effective and low-cost technologies in a relatively short time. This is contributing to better farm performance and improved food security and livelihoods at the household and community level.⁷ There have been some important lessons from dealing with the poor through programmes that have preceded and in any case not necessarily carried an SPFS label: the IFAD experience in Africa provides the insights in text box 11.

⁷ FAO. 2002. Independent Evaluation of the Special Programme for Food Security. Rome

Text Box 9: Diversifying rural income / fisheries and forestry pursuits**Rural Non-farm (RNF) Income opportunities**

Although rural people are generally labelled “agricultural”, in fact it is very rare for them to engage solely in farming. Smallholder households in rural areas usually manage a complex portfolio of activities: diversification is the normal state of affairs. Everywhere in Africa, rural non-farm (RNF) income and employment account for a significant proportion of total rural income and employment, and in some countries they make up more than half the total. Rural households participate in RNF activities for various reasons, including potential high returns, cash flow management, and spreading risk. The poor may also participate in RNF activities because their agricultural asset base is not sufficient to achieve survival. In marginal lands like the Sahel where agricultural risk is high, RNF activities (including migration) are central to spreading risk.

Rural household members engage in a wide variety of RNF activities, with those activities linked to agriculture (food processing and marketing, transportation, blacksmith construction and repair of agricultural tools and machinery) among the most important. Indeed, it is often overlooked that a dynamic smallholder agricultural economy forms the backbone of a vibrant RNF sector. Due to multiplier effects, developing smallholder agriculture is more likely to stimulate off-farm employment than either large-scale agricultural or industrial development because poor smallholders are more likely to use increased incomes to demand locally-produced goods and services, which in turn stimulates additional local employment, which can be of particular benefit to women and youth. Conversely, RNF activities—particularly those related to agro-processing, transportation, and marketing of agricultural produce—can contribute to the growth of the agricultural sector. In the new market environment faced by smallholder producers this is more true than ever before, since the activities can provide a means to locally add value to the produce and so extract the maximum share of its end-price.

The rural poor have special problems in exploiting, non-farm employment opportunities. A combination of limited human and social capital, insufficient access to markets, and lack of credit for working and investment capital lead to high barriers to entry to remunerative RNF employment opportunities. While the rural poor may already be diversified into RNF activities, these constraints lead to low and unstable returns. Strategies for reaching the rural poor through development of RNF activities include those pertaining to human capital, rural finance, marketing and infrastructure development.

Special considerations for Forestry and Fisheries

Forestry: Forests including the non-wood forest products are mainly used for subsistence or low-value commerce, such as for fuel wood. Nevertheless, forests offer many income and employment opportunities including training in wood fuels, crafts, tourism from wildlife etc. The uncontrolled harvesting of natural forests has caused the destruction of biological diversity with minimal economic gains. Lack of value adding processing, and trading in forest products and services, have also reduced the contribution of forestry to economic development in the concerned countries and make forests appear dispensable. Industrial utilisation of forest products has shown greatest success in plantations development, with forest-poor countries e.g., South Africa being the prime exporters of forest based products while forest-rich countries export raw logs or low-value wood.

The low productivity of agriculture leads to extensive clearing of new land in order to increase production of food and other crops to cater for the high rate of population growth. This has been compounded by inability to introduce agro-forestry practices in farm landscapes to diversify livelihoods and enhance sustainable production systems. The low productivity of African forests has meant that large areas have to be used to satisfy the demands for firewood and other forest products. Rapid clearing of forests and woodlands in upper watersheds increases soil erosion, which in some cases silts up downstream dams used for irrigation and hydropower, to the long-term economic loss of many countries.

Fisheries: Irresponsible fishing in inland waters results in capture levels that are often in excess of the stocking and recharge capacity. Africa gains much employment and income from lake fisheries as well as coastline artisanal fisheries on the high seas. Furthermore, the infestation of some inland lakes and waterways with aquatic weeds has reduced fish catches. The reduction of local diversity of fish populations by alien species may have serious consequences. There are severe problems with post-harvest handling, storage and distribution, which restrict supply, to urban areas as well access to overseas markets; they also keep incomes sub-optimal for fisher folk. As wild stocks decline and given that proper management is not being instituted in a timely manner, livelihoods are at risk. In such situations, the development of aquaculture (which in Africa is still in its infancy) offers new opportunities. Africa needs to complement its heavy reliance on fish capture in the wild (a practice that cannot cope with increasing demand) with aquaculture for food and for income and employment. On the high seas, most African countries do not yet have the capacity to compete with foreign fishing vessels, even in legally within their own exclusive economic zones.

Sources: RNF—Heinemann (IFAD); Forestry and fisheries—thematic information from FAO State of the World's Forests and State of Fisheries and Aquaculture.

Text Box 10: Farm Power and Mechanisation

The availability of adequate levels of farm power is among the essentials for increasing agricultural production. As Africa seeks to increase output, so its needs for farm power will also grow from its present heavy reliance on hand labour towards use of draught animals and powered machinery, according to circumstance. Any increase in total agricultural output (be it from area expansion, an increase in cropping intensity or an increase in Yield) requires additional power, if not for technology application then for handling and processing increased volumes. Similarly, land improvements (such as terracing, drainage or irrigation structures), soil conservation and water harvesting techniques frequently place additional demands on the power resource. Change in composition of farm power inputs will reflect either demand or supply-side shifts, or both.

Taken on a global scale, in developing countries, farm power is dominated by hand labour (which is at one extreme) where the GDP per caput is low (under \$1 000 per head), the economy remains dominated by agriculture, there is a low proportion of potential irrigated area in cultivation, and small areas of land are cultivated per person (0.5—0.7 ha of harvested area). Draught animals (mainly work oxen) are a significant or predominant source of power in countries where incomes are higher and is associated with there is an increase in intensity of cultivation on both rainfed and irrigated land, and an increase in the area under irrigation (but no expansion of rainfed land). It appears that use of animals does not displace labour. At the other extreme, tractor based cultivation systems are generally characterised by high GDP per caput (more than \$3000 per head) and where less than half of the economically active population works in agriculture; there are relatively larger areas cultivated per person (1 to 2 ha of harvested area). In Sub-Saharan Africa at present hand power is dominant particularly in Central Africa and Western Africa where it accounts for 85 percent and 70 percent of harvested area respectively. In Western and Eastern Africa there is significant use of draught animals despite humans remaining the major power source, there is increasing use of tractors in Southern Africa. In North Africa, tractors either dominate or there is a rapid trend towards this, here, mechanised farming occurs in irrigation schemes and is becoming increasingly important also in rainfed agriculture.

The period till year 2030 will witness some changes although on present scenarios of agricultural development, in some two thirds of the countries in Sub-Saharan Africa such changes are not projected to be significant by 2030. In Eastern Africa, disease, drought and rustling have decimated the number of draught animals in some areas thereby removing, a principal power source from certain farming systems. Also in Eastern and Southern Africa in particular, HIV/AIDS will affect the workforce, with those countries which are expected to switch from hand power to draught animals being projected to lose almost 20 percent of their agricultural labour by, 2020. Thus one impact of HIV/AIDS will be to make it vital for affected countries to change their source of farm power in order to cope with serious labour shortages at critical times of the farming year. Urbanisation may cause some switch in power sources as it draws labour away from the agricultural sector and possibly affects wage levels and composition of the remaining labour force.

Source: The text is adapted from two sources: (a) Farm Power and Mechanisation. Clare Bishop-Sambrook. Draft contribution to FAO's World Agriculture. Towards 2015/2030. FAO. Rome (b) Global Farm Power Assessment Study—Interim Report. Clare Bishop-Sambrook. January 2001. FAO. Rome.

Text Box 11: IFAD experience with poor farmers in Africa

In Africa, IFAD has since 1977 (25 years) invested in total some US\$3.5 billion, of which US\$0.98 billion in North Africa; US\$ 1.3 billion in Western/Central Africa and US\$1.2 billion in Eastern/Southern Africa. With these investments being focused on the poor, IFAD has gained insights on key issues to address, which any special programmes on food security need to pay attention to. The listing below is a selection:

Participation:

- “First and foremost, the poor have little or no voice in many major decisions affecting their livelihoods”.
- farmers suffer *isolation*: from markets, inputs, products and services and from influence on policies and institutions

Markets:

- farmers lack information on market opportunities and prices, and lack the necessary skills to access markets. Physical access to markets is poor. transaction costs are high, and these factors, combined with farmers’ lack of organisation, results in low producer prices.
- the withdrawal of governments from direct involvement in marketing has left large gaps which the private sector is not yet able to fill
- global conditions are inherently unfavourable for smallholder market access, including prices. For example, world prices for key export crops are quite volatile and are falling still.
- at least in West/Central Africa, by 2030 most people will be urban: this could create major opportunities for markets development due to spiralling urban demand.

Resources and opportunities:

- land and water “are at the heart of the economies of the rural poor” but the poor lack adequate access to land. and this situation is deteriorating, especially for women and youth
- there is little access to the managed water systems necessary for production intensification [in Near East/North Africa, 85 percent of all water goes to agriculture]
- land and natural resource degradation has reached alarming levels often due to use beyond carrying capacity etc
- on average, off-farm activities account for 36 percent of total rural income and employment and deserve attention in rural development

Other key production-dislocating factors:

- wars and other emergencies: IFAD calls for attention to post-conflict situations “in order to balance the overwhelming emphasis on short-term relief”.
- HIV/AIDS
- lack of attention to the needs of rural women [more important than men as agricultural major producers in much of Africa].

Farmer productivity:

- needs priority attention in seeking to eradicate poverty, especially reduction of the drudgery faced by women
- HIV/AIDS is a key, threat to productivity—output of many commodities has already been adversely affected, especially in Eastern/Southern Africa
- there is need for better knowledge, information and technology but the poor have no capacity to pay for these

HIVAIDS and agriculture in Eastern and Southern Africa:

- evidence that the epidemic is disproportionately affecting smallholder agriculture which heavily depends on labour as key, productive resource
- *IFAD action (in partnership with FAO):* strategies preparation for adapting to HIV/AIDS; capturing information and knowledge systems at risk. scaling up HIV/AIDS related activities using farmer field schools. IFAD has also special initiatives adapted to the needs of HIV/AIDS affected situations.

*Sources:*⁸

Unlike the pilot phase of the Special Programme, which focuses on household and community level food security and livelihood issues, its second phase tackles these issues at the national level so as to open the way for scaling up. The second Phase of the SPFS is expected to be prepared under national leadership, but with the engagement of all entities—national and international—committed to improving food security. Its preparation is integrated into the process of formulating and updating the national Poverty Reduction Strategy Paper (PRSP). The national programme is expected to be centred around agricultural and rural sector policy reforms aimed at addressing macro-level economic and institutional constraints: it would usually also include an investment plan for expanding community-led farm level improvements and for addressing physical and infrastructure constraints, and the preparation of bankable projects. Its objective is to ensure the development of a macroeconomic, institutional and policy framework which is:

- favourable to demand-driven agricultural production, storage, processing, and marketing, and broadened access to food;
- supportive of increased private and public investments in agricultural activities and services;
- conducive to increasing rural incomes and improving livelihoods.

4.5 Funding Requirements

The experience of the SPFS suggests that the cost to the public sector of enabling a poor small farmer's family to make the investments required to attain an adequate level of food security is about US\$500. How this is spent will vary from country to country and farm to farm. Typically, however, it will include:

- Initial funding of US\$300 to US\$400 of improved farm inputs (such as seed and fertilisers), small-scale on-farm works. Low-cost items of equipment (e.g. treadle pumps) and breeding stock (e.g. poultry, goats). Funds to meet these costs would be advanced on condition that farmers make a matching contribution in terms of labour and that, once production rises, an equivalent amount is deposited into community managed revolving funds to be used for further on-farm and community-level investments (e.g. in school gardens) and thereby ensure the programme's financial sustainability.
- Provision of support services aimed at empowering groups of farmers to diagnose problems. identity, needs and opportunities for investments (including farm or community based agro-processing), test innovations and acquire the knowledge and skills to improve production and livelihoods through participatory approaches; sustainability of support services would be assured through the retention by farmers' groups of income from jointly, managed

⁸ Regional Workshop on Poverty Reduction and Rural Growth in Eastern and Southern Africa. Dar-es-Salaam, 23-24 May 2002. Provisional Summary of Proceedings; IFAD Strategy for rural poverty reduction in Western and Central Africa. <http://www.ifad.org/operations/regional/2002/pa/pa.htm>; IFAD Strategy for rural poverty reduction in Eastern and Southern Africa. <http://www.ifad.org/operations/regional/2002/pf/pf.htm>; IFAD Strategy for rural poverty reduction in Eastern and Southern Africa. <http://www.ifad.org/operations/regional/2002/pn/pn.htm>

demonstration and trial plots in order to defray future service costs. Typical start-up costs of such front-line facilitation services, provided by extension staff, other farmer facilitators or NGOs are US\$30 to US\$50 per family.

- Funds to meet costs incurred in creating an enabling policy and institutional environment at national level and at the level of regional bodies. Costs are assumed to range from US\$50 to US\$100 equivalent per family.

The effectiveness of these investments in on-farm development and related services is, of course, dependent on complementary investments in up-stream irrigation works, soil conservation, roads and other rural infrastructure (as detailed in chapters 2 and 3). This also includes investments in up-stream and down-stream support infrastructure for irrigated and rain-fed crop production. Livestock and fisheries, such as applied research centres, seed multiplication centres, animal and fish breeding facilities, parent and grandparent stock facilities for poultry, animal feed mills, tree nurseries, processing facilities, e.g. slaughterhouses, canning factories, storage facilities, local and export market facilities, etc. Such facilities should be operated mainly by the private sector, or where appropriate, the public sector, such as municipal authorities. Programme effectiveness would also be enhanced to the extent that governments are able to put in place safety nets to broaden access to food, which in turn stimulate local markets. In the long term, any improvements must be underpinned by science and technology disseminated and adopted by farmers; Chapter 5 outlines some proposals for strengthening Africa's research and development capacities for agriculture.

The scale of such programmes must be massive if they are to have a meaningful impact on reducing hunger and poverty. For the purposes of estimating costs, a need is assumed to reach 15 million households in Africa by 2015, equivalent to 100 million people or half those now suffering from under nourishment. The country and sub-regional cost estimates are based on the number of undernourished persons estimated in the State of Food Insecurity (SOFI) 2001. The total cost of an Africa-wide community based programme for improving small farmer performance would therefore be about US\$7.5 billion of which about US\$6.5 billion would be for national programmes for on-farm investment and support services, and US\$1 billion would be for regional programmes (Table 23).

Detailed estimates of total costs and of a possible annual breakdown of costs are given in Appendix Table 6, showing a rise in annual commitments from around US\$320 million per year in 2002 to US\$600 million in 2015.

4.6 Regional Programmes for Food Security

While most actions required to enhance food security, must be part of national food security strategies, achieving food security also requires attention to regional and global constraints. Accordingly, Regional Economic Organisations (REOs) in Africa have chosen to prepare and to mobilise resources for Regional Programmes for Food Security (RPFs).

The RPFSSs prepared by these REOs (notably, AMU, CEN-SAD, CEMAC, COMESA, ECCAS, ECOWAS, IGAD, SADC, and UEMOA) in collaboration with FAO, complement and reinforce national policies and programmes by addressing those issues that are regional in character. In most cases, the RPFSSs consist of three main components:

- trade facilitation.
- agricultural policies,
- support to national SPFS to increase production and productivity.

The relative importance of each component varies across the REOs depending on the natural, socio-demographic, economic, agricultural and food security characteristics of their member countries.

4.6.1 Trade facilitation

Trade facilitation and market access is expected to help reduce variability of food supply and increase opportunities for income generation through increased trade. Such trade facilitation measures would contribute to local and national specialisation through enhanced competition, and allow for a better expression of the comparative advantage of each of the member countries of the regional groupings. RPFSS activities would address sanitary and phytosanitary barriers and technical obstacles to trade, promote adoption of international *Codex Alimentarius* norms and standards and seek reduction and harmonisation of tariffs. Specific measures would be incorporated to benefit in particular small farmers and vulnerable sectors of the population. To some extent, this implies a new dimension for trade issues.

Some of the specific trade facilitation activities which need to be taken up include: commodity development programmes; transitory measures in response to the on-going trade liberalisation; compensatory measures in response to emerging trends in global commodity markets and trading environment. These activities aim to enhance the capacity of each member state of the grouping to participate in the process of globalisation with a view to ensuring food security, enhancing opportunities for agricultural trade to supply domestic and external markets and facilitating the incorporation of small farmers into the new economic environment.

4.6.2 Harmonisation of agricultural policies

Comprehensive food and agricultural policies at national levels and strategic policy frameworks at regional level are indispensable to achieving food security and harmonious rural development. The RPFSSs would in most cases provide support to member countries in better defining priority lines of regional action plans for mutual benefit, based on comparative advantages and identification of policy issues whose success in one country, depends on collaboration and support from the others. They would also contribute to harmonising policies on transboundary issues, such as diseases and pests, or affecting sustainable use of cross boundary natural resources (such as water and fisheries resources), as well as mobilisation of resources for addressing regional constraints to food security, agriculture and rural development.

4.6.3 Support to national programmes for food security for increased production and productivity

National efforts to improve regional programmes are reinforced by addressing regional issues so as to enhance the capacity of smaller countries to benefit from the strength of a group, achieve economies of scale through intra-group trade, and foster collaboration in areas relevant to food security, agriculture and rural development.

The full implementation of the RPFS on a scale which could contribute to reducing by about half the number of undernourished persons would require roughly US\$1 billion by 9 Regional Groupings in Africa in the next 13 years.

Details of the annual resource requirements are presented in Appendix Table 7. During the FAO Regional Conference for Africa, held in February, 2002 in Cairo, Egypt, the participating member states of the REOs decided to mobilise resources for the implementation of the RPFS within the framework of NEPAD.

4.7 NEPAD and the Improvement of Food Security

The NEPAD framework offers Africa a potentially effective approach for achieving the World Food Summit goal of halving the number of undernourished people by, 2015. But to do this will require bold and ambitious programmes, in the immediate future, by pressing for Africa to increasingly find capacity to prepare for and respond to the food and agricultural emergency, fallout of disasters; and simultaneously embarking on longer-term investment in food security linked to national Poverty Reduction Strategies. These should give high priority, to agricultural and rural development. Africa's REOs will no doubt continue to co-operate with donors and international institutions in their efforts to help Africa achieve its food security goals.

An essential element for success is partnership: NEPAD needs to encourage partnerships within Africa and between Africa and the international community in support of food security programmes. Within countries, the government, the commercial private sector, and civil society, including community-based organisations need to find effective co-operation modalities that are mutually beneficial. Internationally, similar partnerships are needed involving funding and technical assistance agencies; public sector and private sources of funding; bilateral and multilateral partners. The partnerships need to mobilise energy based on long-term commitment: Africa's food insecurity will not be solved in one season, nor will it be solved by solutions parcelled out in enclave projects operating outside sustainable frameworks.

Text Box 12: Partnerships

If, as recently as a decade ago, governments in the Region saw themselves as the prime motors of economic development, today there is increasing recognition by the governments themselves that their direct role in economic activities is a more limited, though at the same time more strategically important in creating conditions for growth. It is a role which is focused particularly on the key area of establishing the policy, legal and institutional framework which enables the private sector to play the leading role in economic development, and in selectively investing in key public goods which will catalyse broad-based economic growth. This requires that governments in the Region increasingly establish strategic partnerships with a range of partners to achieve their development objectives, and that their investments are targeted particularly at reducing transaction costs both in public service and in the market place.

The main players in ensuring broad-based economic growth are smallholder producers themselves. Agricultural production services must not only effectively target smallholder producers, but must ensure that the services provided respond to the constraints they face and opportunities open to them. At the same time, there is need to strengthen the capacity of smallholder producers to define and articulate their requirements in terms of services; organise themselves to better access inputs, produce markets and production services and conduct their own agricultural experimentation, establish a strong voice for themselves in the policy and institution-building process. Supporting the development of producer groups associations is a crucial part of such an approach.

The private sector—beyond the small-scale producer—is also a key partner. The large-scale formal private sector—particularly agri-business, is in a number of countries of the Region probably the major development partner for smallholder producers. Future progress depends on a broad-based and equitable expansion of these relations—something that will only happen on the basis of mutual interest. The commercial private sector wants to make money. It can do so—and at the same time help poor farmers make more money, if it expands its commercial relations into a realm of self-organised smallholders who are aware of market options. More and more governments in Africa recognise the crucial role that the private sector must play, and are willing to undertake investments—in policies, institution-building as well in infrastructure—which reduce the transaction costs that the private sector faces in doing business with smallholder producers.

NGOs are increasingly recognised as having specialised skills in areas of crucial importance for promoting rural development—particularly in ‘soft’ areas such as participatory planning, capacity building, group development, etc. More and more governments in the Region are willing to work in partnership with suitably experienced NGOs operating as service providers: such arrangements are expected to be further strengthened in the future.

Partnerships in today’s world also involve the donor community. Such partnerships must be built on respect by donors for the sovereignty of the countries involved, and by an explicit recognition that it is the governments of those countries which must co-ordinate the support and activities of the donors, within a consistent sectoral policy and strategic framework.

Partnerships exist not only at the national level; and indeed one of the areas in which NEPAD can add value is in supporting the development of two-way or larger partnerships across the continent—among national governments, sub-regional organisations, national farmers associations, and NGOs and private sector organisations in different parts of the continent. Such partnerships can provide the opportunity for lessons learnt in one location to be applied in another; the exchange of technologies, approaches and institutional arrangements; and the promotion of investment within and across the continent.

Source: Heinamnn. IFAD

NEPAD may find it important to use partnerships for carrying out the following actions, to be undertaken with the full involvement of a diversity of African and international partner institutions:

- co-operation in planning and capacity building for preparedness and response capacity for food and agriculture problems arising from disasters;
- support to governments in up-dating National Food and Agriculture Strategies, linking these to national Poverty Reduction Strategies,
- assistance to governments in developing an enabling policy, legal and institutional environment for addressing food insecurity,
- assistance to governments and regional bodies in strengthening early warning systems and information on food insecurity as a basis for improved targeting;
- a progressive expansion of food security programmes within participating countries, enabling them to engage an increasing number of rural and peri-urban communities in expanding farm output and in improving their food security;
- assistance to countries and REOs in the identification and preparation of country-specific investment programmes for agricultural and rural development, including enhanced food security, consistent with the up-dated National and Regional Food and Agriculture Strategies;
- assistance in the mobilisation of required resources,
- expanded technical support for regional bodies to enhance their capacity to address the regional dimensions of food insecurity and implement the RPFS;
- assist member countries develop and implement proactive programmes to support the development of entrepreneurship among small-scale farmers and the emergence of a local private sector that could take up most of the upstream and downstream activities of interest to agricultural development.