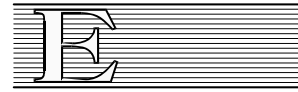




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Sustainable Development (ACSD-5)/  
Regional Implementation Meeting (RIM) for CSD-16  
Addis Ababa  
22-25 October 2007**

**Africa Review Report on  
Agriculture and Rural Development  
(Main Report)**

**August 2007**

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## List of acronyms

<b>ACSD</b>	Africa Committee on Sustainable Development
<b>ADRAO</b>	Association pour le Développement de la Riziculture en Afrique de l'Ouest
<b>AfDB</b>	African Development Bank
<b>AGRA</b>	the Alliance for a Green Revolution in Africa
<b>AMCOW</b>	African Minister's Council on Water
<b>AMCEN</b>	African Ministers Conference on Environment
<b>AU</b>	African Union
<b>AWF</b>	the African Water Facility
<b>AWTF</b>	African Water Task Force
<b>CAADP</b>	Comprehensive Africa Agricultural Development
<b>CILSS</b>	Comité Permanent Inter-Etats de Lutte contre la Sécheresse au Sahel
<b>CGIAR</b>	Consultative Group on International Agricultural Research
<b>CEN-SAD</b>	Community of Sahel-Saharan States
<b>COMESA</b>	Common Market for Eastern and Southern Africa
<b>CORAF</b>	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricole
<b>CSD</b>	Commission on Sustainable Development
<b>ECCAS</b>	Economic Community of Central African States
<b>ECOWAS</b>	Economic Community of West African States
<b>EGM</b>	Expert Group Meeting
<b>FARA</b>	Forum for Agricultural Research in Africa
<b>FARRA-FAAP</b>	Forum for Agricultural Research in Africa-Framework for African Agriculture Productivity
<b>FOSICH</b>	Food Security Information Clearing House
<b>GDP-RD</b>	Global Donor Platform for Rural Development
<b>ICT</b>	Information and Communication Technologies
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFPRI</b>	The International Food Policy Research Institute
<b>IGAD</b>	Inter-governmental Authority on Development

<b>ILRI</b>	International Livestock Research Institute
<b>INSAH</b>	Institut du Sahel
<b>IWRM</b>	Integrated Water Resources Management
<b>JPOI</b>	Johannesburg Plan of Implementation
<b>MAPP</b>	Multi-country Agricultural Productivity Program for Africa
<b>MDGs</b>	Millennium Development Goals
<b>NEPAD</b>	New Partnership for Africa's Development
<b>NERICA</b>	New Rice for Africa
<b>ODA</b>	Official Development Aid
<b>PABRA</b>	Pan-Africa Bean Research Alliance
<b>PACI</b>	Pan-African Cassava Initiative
<b>PFIA21</b>	Programme for Further Implementation of Agenda 21
<b>PRSPs</b>	Poverty Reduction Strategy Papers
<b>RECs</b>	Regional Economic Communities
<b>RFSP</b>	Regional Programmes for Food Security
<b>RIM</b>	Regional Implementation Meetings
<b>ROPPA</b>	Réseau des Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest
<b>SADC</b>	Southern African Development Community
<b>SCP/UNEP</b>	Sustainable Consumption and Production/United Nations Environment Programme
<b>SDRA</b>	Sustainable Development Report on Africa
<b>SARD</b>	Sustainable Agriculture and Rural Development
<b>SDD</b>	Sustainable Development Division
<b>SLM</b>	Sustainable Land Management
<b>TIIP</b>	Technology, Infrastructure, Institutions and Policies
<b>UNCED</b>	United Nations Conference on Environment and Development
<b>UNEP/ROA</b>	United Nations Environment Programme/Regional Office for Africa
<b>WFS</b>	World Food Summit
<b>WSSD</b>	World Summit on Sustainable Development

## **1. Introduction**

### **1.1. Background**

The Commission on Sustainable Development (CSD) was created in December 1992 to ensure follow-up of outcomes from the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, Brazil.

At the 11th session of the Global CSD, it was decided to review the implementation of Agenda 21, the Programme for Further Implementation of Agenda 21 (PFIA21) and the Johannesburg Plan of Implementation (JPOI), in two-year cycles with each cycle focusing on clusters of specific thematic and cross-cutting issues. Regional commissions were also invited to take a lead role in organizing regional implementation meetings (RIM) to contribute to the work programme of the CSD.

UNECA welcomed this invitation and subsequently, the first Regional Implementation Monitoring on water, sanitation and human settlements, along with other preparatory work, was carried out by UNECA in preparation to CSD-12/13.

Accordingly, CSD 16/17 in 2008/2009 will focus on Agriculture, Rural Development, Land, Drought, Desertification and Africa. ECA has therefore scheduled a RIM for 2007 under the auspices of the fifth session of the Africa Committee on Sustainable Development (CSD-5). The RIM for Africa will provide inputs from the region to the CSD-15 in order to maintain the momentum generated.

The proposed Africa Review Report on Agriculture and Rural Development, which constitutes an integral component of the above thematic areas, therefore is to be prepared pursuant to the above rationale and it will form background information for the Africa RIM and provide substantive input to the CSD15.

### **1. 2. Purpose, objectives and commitment selectiveness**

The RIM will undertake an evaluation of progress in implementing Agenda 21, the programme for the further implementation of agenda 21 and the Johannesburg Plan of Implementation. The focus of the exercise will be to identify achievements, constraints and challenges to further implementation with regard to agriculture and rural development in Africa.

In particular, this exercise will assess and review progress in the implementation of the JPOI, Agenda 21, the Programme for Further Implementation of Agenda 21 and other related and interlinked commitments on Agriculture and Rural Development (ARD) in the region focusing on on-going initiatives on the ground.

This RIM will review progress achieved in the above thematic cluster based on major commitments, goals and targets set out in the NEPAD especially the Comprehensive Africa Agriculture Development Programme (CAADP) which presents linkages with the Johannesburg Plan of Implementation (JPOI), Program for the Further Implementation of Agenda 21 (PFIA21), and Agenda 21, taking into consideration the MDGs.

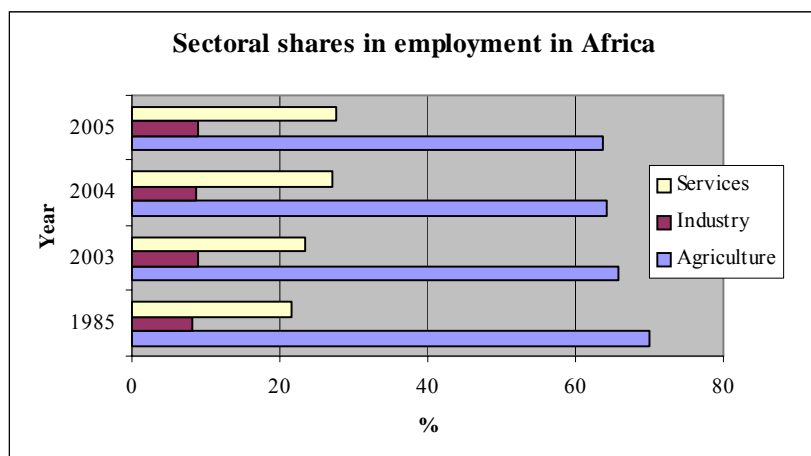
The Comprehensive Africa Agricultural Development Programme (CAADP) has been endorsed by the African Heads of State and Government and accepted as a vision for the restoration of agricultural growth, food security, and rural development in Africa.

A specific goal of CAADP is to attain an average annual growth rate of 6 % in agriculture. To achieve this goal, the framework directs investment to four mutually reinforcing 'pillars': (i) extending the area under sustainable land management and reliable water control systems; (ii) improving rural infrastructure and trade-related capacities for improved market access; (iii) increasing food supply and reducing hunger; and (iv) agricultural research, technology dissemination and adoption.

## 2. Agricultural and rural sector economic share and performance in Africa

Agriculture is the backbone of Africa's economy. About 70% of Africans and roughly 80% of the continent's poor live in rural areas and depend mainly on agriculture for their livelihood. The sector accounts for about 20 % of Africa's GDP (ECA, 2004), 60% of its labour force and 20% of the total merchandise exports (CAADP, 2003).

Agriculture is the main source of income for 90% of rural population in Africa (ECA, 2005). Despite rapid urbanization proceeding at the annual rate of 4.9 % over the past decades, the sector still provides a great part of the total employment despite. The decline of its share over the time compared to industry and services is a reality.



Source: ILO, Global employment Trends Model, 2005

(\*) Employment in a sector as a share of total employment in sector

In 2001, about 47% of the population was living below the international poverty line. About 70% of those living on less than 1\$ a day are located in rural areas (World Bank, 2002) establishing poverty as a rural phenomenon in the region.

This majority is generally unable to meet basic food and other needs due the continuous poor performance of the sector agriculture. Therefore the agricultural sector performance and rural development are critical component in the successful attainment of the MDGs in Africa.

Agriculture represents also a great part of the Africa's share in world trade. The share of Africa in world exports has dropped steadily, from 8% in 1971-1980 to some 3.4 % in 1991-2000. On the list of 20 top agricultural and food commodity importers in 2004, in terms of the total agriculture share in total merchandise imported, 60 % are from SSA: Djibouti (77.39 %), Mauritania (71.85 %), Gambia (71.08 %), Guinea-Bissau (58.73 %), DR. Congo (52.82 %), Benin (44.51 %), Congo (43.48 %), Eritrea (30.30 %), Senegal (29.60 %), Liberia (29.44%), Angola (27.50%) and Niger (26.14%).

African countries represent 50% of top 20 countries, in terms of the Share of total agriculture/ total exported merchandise (Guinea-Bissau (91.44%), Malawi (81.06%), Benin (75.11), Gambia (74.39), Chad (64.75), Burkina Faso (61.03), Ghana (53.71%), Ethiopia (49.59%), Côte d'Ivoire (49.59%) (FAO-Database, 2004).

Africa's agricultural trade with the rest of the world has moved from a handsome surplus in the 1960s and 1970s to a burgeoning deficit since the 1980s due to fall in prices and, as consequence, fall in output of some of Africa's major agricultural export commodities. The region's share of global agricultural exports and imports were 3.4 % and 4.1 % in 2003, respectively.

The recent years have seen a renewed commitment for Agricultural and rural development in Africa from high-level initiatives addressing poverty and hunger with new focus on agriculture and rural areas, where most hunger persists. These global, regional and sub-regional initiatives have generated a multiplicity of commitments comprising the A21, JPOI, MDGs, WFS and NEPAD-CAADP....

### **3. Commitments selectiveness and progress tracking**

The Agenda 21, the JPOI, MDGs, the WFS and the CAADP-NEPAD, the Africa Union summits, have generated a large number of recommendations with regard to SARD. Regrettably, it is only on a few of these areas of action that Africa can report significant progress. It therefore seems necessary to have a way of screening the commitments and declarations and selecting from among them those which leaders will wish to see most effort and resources expended; the basis for selection would necessarily have to link to importance for and effectiveness in improving SARD (NEPAD/Abuja, 2006).

#### **3.1. Sustainable Land Management: CAADP Pillar 1 Progress**

##### **3.1.1. Commitments and progress**

The A21 recognizes the inappropriate and uncontrolled land uses as major cause of degradation and depletion of land resources while the CAADP-NEPAD first pillar ambitions extending the area under Sustainable Land Management and Reliable Water Control Systems.



The CAADP framework focuses on the management of the overland run-off and soil moisture through increased irrigation and use of fertilizers for a sustainable agriculture and the mainstreaming of environment issues in SARD.

Trends in irrigated land expansion over the last 30 years show that, on average, irrigation in Africa increased at a rate of 1.2 % per year. However, this rate began to fall in the mid-1980s and is now below 1 % per year, but varies widely from country to country.

Over the period 1990-2003, the amount of irrigated land in Africa increased only slowly from 11 million to 13.4 million hectares, with approximately half of the total accounted for by North Africa. The annual rate of growth since 1995 has averaged between 0.5 and 0.7 %. Less than 10% of Africa's potential irrigable land is irrigated (compared to 26% for India and 44% for China). The annual rate of growth and the area of irrigated land would need to increase 10-fold to around 7% in order to increase the total to 20 million hectares by 2015 in line with CAADP ambitions. This is estimated to cost around US\$ 4 billion per annum, or cumulatively US\$ 37 billion.

Africa's soil is the poorest in the world due to decades of soil-nutrient mining. Yet fertilizer use is extremely low by international standards – around 8 kg/ha, compared to a global of 100 kg/ha. The FAO estimates that fertilizer use needs to treble to 23 kg/ha by 2015 in order to achieve the MDG of halving the number of malnourished people. Yet during the period 1980-2000, Africa's use of fertilizer rose by only 14%, due to a combination of high prices, and low disposable farmer income. Within this overall picture, there is again a sharp difference between North Africa (whose share of the total rose from 38 to 40% over this period), and SSA (where consumption actually fell).

### **3.1.2. SLM achievements and challenges**

Numerous initiatives related to land, water management and fertilizer access have been launched in Africa. 18 countries have already undertaken or are currently actively undertaking major land reforms. These are essential to increasing the security and stability of land tenure, which would in turn help to encourage the investments needed to modernize agriculture.

At the same time, institutional resources for the implementation of reform are often stretched. Maintaining the political momentum necessary to introduce reform can also be a challenge. Bringing land policies and the performance of land institutions within the framework of the Africa Peer Review Mechanism (APRM) could be a useful way of reinforcing the momentum for reform.

A consortium of the AU/NEPAD, ECA and AfDB has also recently started to develop an Africa-wide land policy framework and guidelines for its implementation (the project was launched in 2006 and will be finalized by September 2007, following regional consultations). Efforts are now being made to include irrigation within the Infrastructure Consortium for Africa, the International Water Facility, and the Rural Water Supply and Sanitation Initiative. As new schemes are developed, these will also need to take into account future maintenance and financing needs.

The TerrAfrica initiative has started to integrate environmental concerns into the CAADP first pillar, and is expected to leverage additional resources from the Global Environment Facility (GEF) and elsewhere in support of sustainable land management.

Africa's partners have taken the lead in laying the groundwork for increased and stronger involvement in Sustainable Land Management (SLM) in SSA, building on the tools and partnerships developed under TerrAfrica to advance operational donor alignment around a common vision, investment tools, and knowledge base.

Activities are being designed to build on and implement existing SLM related actions and strategies at country level, including the UNCCD/NAP, NEPAD and PRSP processes. Progress has been achieved in Ethiopia, where the Government, with the World Bank support, has made a formal decision to develop and implement a national framework for SLM, and has taken steps to establish an SLM platform at federal level to engage and align the contributions of all stakeholders in the country. TerrAfrica partners are also working with the governments of Uganda, Ghana, Burkina Faso and Namibia to support country-programming approaches for SLM. Meanwhile, country dialogue on SLM has been initiated in a number of SSA countries, including Mali, Malawi, Niger, Gambia, Eritrea, Nigeria and Senegal. (TerrAfrica Info Note – CRIC-5, March 2007).

The NEPAD TerrAfrica Operational Framework, designed to operationalize the SLM objectives of the CAADP and EAP visions, is currently under implementation by NEPAD and the Regional Economic Communities (RECs), who are coordinating their activities through the implementation of joint work programs. Specific progress has been made by COMESA, which will set up regional coordination mechanisms and knowledge support systems to facilitate cross-country cooperation and peer review and mutual learning processes, while the NEPAD Secretariat will focus on facilitating policy dialogue, mutual review and the coordination of development assistance.

TerrAfrica has developed the Strategic Investment Program (SIP) – a provision under which the TerrAfrica partnership is securing about 50% of the GEF's support to sustainable natural resource management in Africa onto supporting SLM scaling up programs. The TerrAfrica Leveraging Fund (TLF) has been created at the World Bank and the first contributions received by the end of June 2006.

The Global Mechanism is updating the FIELD database and positioning it as a critical reference database in support of decision-making on SLM financing.

FAO is working on an SLM Knowledge base which would serve as the basis for the development of a suite of SLM guidelines and tools. The Knowledge base will take the forms of a website, CDs and reports, providing key information on themes related to TerrAfrica, including SLM scale-up, SLM practices at decentralized and local levels, and SLM coordination and mainstreaming at sub-regional and regional levels.

Other partners, including the World Bank, the AfDB, IFAD and UNDP have made significant efforts to promote and advance the SLM agenda through their internal business lines. The World Bank, co-chairing the TerrAfrica partnership with NEPAD, has positioned SLM more strongly as a key element of the Africa Action Plan. Similarly, AfDB has been actively mainstreaming SLM in Bank projects and operations and has ensured that the new division of Natural Resources Conservation and Environmental Protection has SLM as part of its mandate. Meanwhile UNDP have led special advisory groups convened by the partnership to develop joint strategies for M&E and civil society engagement (TerrAfrica, 2007).

While good progress is being made, there still exist many good opportunities for alignment and harmonization of activities between TerrAfrica partners working on the ground. Many current World Bank's activities - on land degradation and rehabilitation, poverty, SLM, community based investments, environment - engaged with countries (Senegal, Ghana, Ethiopia, Kenya, Niger, Mali, Uganda) offer great opportunity for harmonization and alignment. As a short-term priority, TerrAfrica partners need to focus on exploring their respective portfolios of activities, to identify specific new possibilities for such opportunities and synergies.

In the same line, African leaders agreed and committed themselves at the 2006 Abuja Summit on Fertilizers to increase fertilizer use to at least 50 kg/ha by 2015, and to establish an "African Fertilizer Facility" to finance fertilizer investments (Nigeria has pledged US\$ 10m). This initiative importantly provides new political momentum, but will need to be accompanied by the development of an effective monitoring mechanism to enable African governments to assess progress regularly.

The issues here need to be seen alongside wider agricultural policy reform. The development of infrastructure will be necessary to reduce transport costs and therefore fertilizer prices. The fertilizer demand will also depend on the improved use of other agricultural inputs (water, seed, pesticides, tools, access to credit); and increased profitability through better access to markets and higher commodity prices for farmers. Improved linkages across national, regional and global markets will be essential.

The UNEP/ROA has developed the NEPAD's Environment Action Plan under the guidance and leadership of the African Ministers Conference on Environment (AMCEN). The plan highlights NEPAD priority areas on environment as combating desertification, promoting wetland conservation, preventing and controlling the spread of invasive alien species, coastal management, monitoring and regulating the impact of global climate change, building trans-frontier conservation areas, improving health and environment, and promoting environmental governance relating to enhanced institutional coordination, training and capacity building.

In the same way, AfDB approved its Policy on the Environment in February 2004 set to achieve (i) the improvement of the overall quality of life of the people of Africa by supporting an environmentally sustainable development path, and (ii) the preservation and enhancement of the ecological capital and life-support systems across the continent. The policy, thus, sets out the broad strategic and policy framework under which all Bank lending and non-lending operations will be managed.

### 3.2. Poverty and hunger commitment.

The MDGs target of halving by 2015 the proportion of those suffering from extreme poverty and hunger has been reinforced by the World Food Summit (WFS) commitment to reduce by 50% the number of malnourished persons by 2015. The chapter 14 of the A21 confirmed this engagement establishing increased food production and enhanced food security as the major objective of SARD.

#### 3.2.1. Progress

##### 1. Poverty progress

During the 1990s, extreme poverty dropped in much of Asia, fell slowly in Latin America, changed little in Northern Africa and Western Asia, and rose and then started to decline in the transition economies. In SSA, which already had the highest poverty rate in the world, the situation deteriorated further and millions more fell into deep poverty. The proportion of people living on less than 1\$ a day rose from 44.6% in 1990 to 46.4% in 2001 in Africa (UN-MDGs, 2005).

##### Proportion of people living on less than \$1 a day, 1990 and 2001 (%)

Region	1990	2001	Progress
SSA	44.6	46.4	4.04
Southern Asia	39.4	29.9	-24.12
Eastern Asia	33	16.6	-49.7
South-Eastern Asia	19.6	10.2	-47.96
Latin America -Caribbean	11.3	9.5	-15.93
CIS* countries	0.4	5.3	123
North Africa-Western Asia	2.2	2.7	22.73
Transition countries S.E. Europe	0.2	2	900
Developing Regions	27.9	21.3	-23.66

Source: UN(2005), <http://www.unfpa.org/icpd/docs/mdgreport2005.pdf>,

\*CIS: Commonwealth of Independent States.

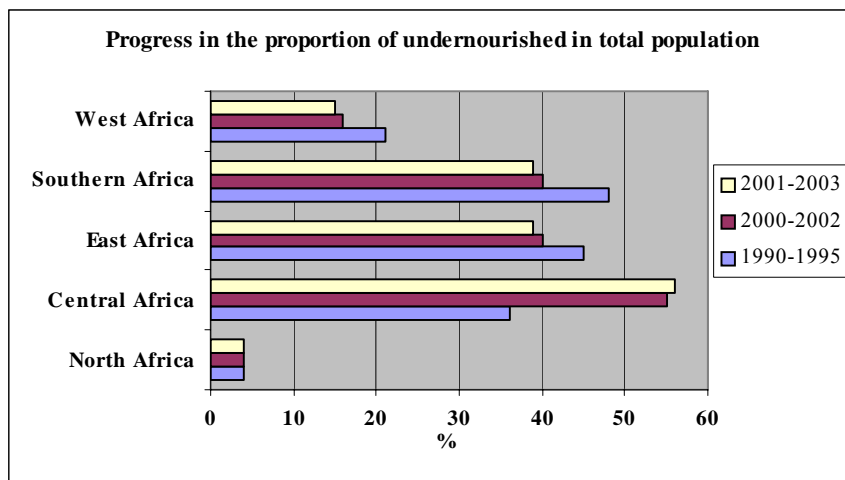
From 227 millions in 1990, the number of poor people in Africa attains 271 millions in 1996 and 313 millions in 2001 while it was declining in Asia respectively from 936 millions to 748 and 703 in the same years. The poor are also getting poorer in Africa, the average income of people living on less than \$1 a day have fallen from 0.62\$ in the 1990s to 0.60 in 2001 while it has been rising from 0.80 \$ to 0.82 in all the other developing countries for the considered period. The majority of the poor in the region - about 70 % - live in rural areas. For the rural communities, agriculture remains the main source of employment and income and represents the engine of rural economy.

## 2. Food security and hunger progress

Over the period 1992 – 2002, there was a small reduction in the overall percentage of the malnourished population in Africa, from 29% to 27% masking an increase in the absolute number, from 176-210 million, a rise of 19%. However this was largely driven by a strong performance in some regions (South, East and West), with the North already at low rates, substantially offset by a major increase in central Africa – due to the war in the DRC.

The AU Commission's Food Security Report (2005) established that African annual growth rate of food production is, at 1.5 per cent, lower than the population growth rate of 2.73 per cent and that this has led to high levels of food insecurity (27%) (NEPAD/Abuja, 2006). The situation in SSA is particularly dire with the number of hungry people increasing by 20 percent since 1990.

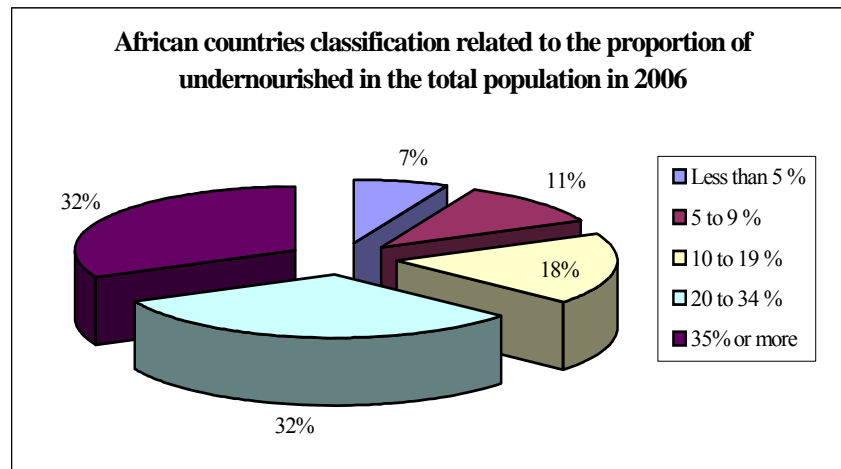
The proportion of undernourished people in different sub-regions in Africa has presented an average of 30.8 %, 31% and 30.6% respectively in 1990-1995, 2000-2002 and 2001-2003 (FAO, The state of food security 2004). The progress tracked at the sub-regional level reveals different trends and challenges.



Source: FAO database

With 9 % of the population undernourished, the Near East and North Africa is the region with the lowest prevalence of undernourishment among the developing regions.

SSA accounts for 13% of the population and is the developing region with the highest proportion – one-third - of people suffering from chronic hunger. In 14 countries in the region, 35 % or more of the population were chronically undernourished in 2001-2003.



FAO, 2006

Hunger in SSA is as persistent as it is widespread. Between 1990-1992 and 2001-2003, the number of undernourished people increased from 169 million to 206 million, and only 15 to 39 countries, for which data are reported, reduced the number of undernourished (WFS, 2006).

Among the countries that stand out as having achieved a significant reduction in the number of undernourished are Ethiopia, Ghana and Mozambique. In Ethiopia the number of undernourished people declined by 6 million (17%) from 38 million to 32 million, between 1993-95 and 2001-03, with the prevalence falling from 61 to 46%, in relative terms. Ghana's performance was even more impressive. The number of undernourished people was reduced from 5.8 million to 2.4 million (59%) and the prevalence of undernourished from 37 to 12%. In Mozambique, the number of undernourished people declined by 900.000 (10%) and the prevalence of undernourishment from 66 to 45%.

### **3.2.2. Poverty and food security achievements and initiatives**

#### **1. Global Donor Platform for Rural Development (GDP-RD)**

Following a donor consultation meeting held in Rome in June 2002, and further meetings in Montpellier and Washington, like-minded donors, development agencies and IFIs have agreed to put in place a Global Donor Platform for Rural Development (GDP-RD), a joint donor initiative coordinated by Germany and managed by GTZ.

The ultimate objective of the Platform is to reduce poverty and enhance economic growth in rural areas in developing countries through improved donor cooperation, collaboration and coordinated dialogue with partner countries.

Established in 2003, the GDP-RD has 26 member organizations concentrating about 80% of total ODA in the field of rural development and focuses on advocacy for agriculture and rural development, creating and sharing knowledge for the development community, and harmonizing donor activities in countries in order to fight rural poverty and ensure food security.

The GDPRD is collaborating with the NEPAD in supporting the CAADP and provides joint support to the harmonization of procedures and practices in rural development in line with the Paris Declaration on Aid Effectiveness of March 2005. It accompanies donor harmonization and alignment efforts in rural development in two pilot African countries: Burkina Faso and Tanzania.

## **2. Regional Programmes for Food Security (RFSP)**

FAO is promoting cross-country partnership and regional integration to enable countries to successfully confront the challenges of food security and solve regional problems through collective action. It works directly with Regional Economic Organizations (REOs) to promote structural reforms and policy harmonization; transboundary issues related to food trade and safety... to support national Programmes for food Security and water. RFSP also work to strengthen national programmes by holding capacity building and training sessions with country representatives along with other initiatives to strengthen national capacity.

FAO has implemented Regional Programmes for Food Security for different RECs in Africa (CAEU (Council of Arab Economic Unity), ECCAS (Economic Community of Central African States), CEMAC (Communauté Economique et Monétaire de l'Afrique Centrale), CEN-SAD (Community of Sahel-Saharan states), COMESA (Common Market for Eastern and Southern Africa), ECOWAS (Economic Community of West African States), IGAD (Intergovernmental Authority on Development), SADC (Southern African Development Community), UEMOA (Union Economique et Monétaire Ouest Africaine) and the UMA (Union du Maghreb Arabe)).

## **3. The AU Report on food security and the African Regional Nutritional Strategy**

The AU has published a report on the Status of Food Security and Prospects for Agricultural Development in Africa in collaboration with IFAD, FAO and WFP in July 2005. The report highlighted the unchallenged prominence of the agricultural sector in the economies of most African countries. It has renewed the political commitment and identified accelerated agricultural growth in Africa as a crucial condition to achieving food security and reducing hunger.

The AU Commission has also completed the process of revisiting the African Regional Nutritional Strategy (1993-2003). The main purpose of the revision was to incorporate emerging concerns (HIV-AIDS, diet related chronic diseases, resurgence of TB and malaria...), and re-emphasize nutrition as basic input in poverty alleviation strategies and the achieving of the MDGs. The revised ARNS (2005-2015) is aimed at inspiring member states of the AU in the definition/revision of their National Plan of Action on Nutrition (NPAN).

The Strategy focuses on increasing awareness among policy makers on nutrition's problems, advocating and stimulating action at the national and the regional level that lead to improved nutrition outcome and defining mechanisms of collaboration/ cooperation among actors involved in the African nutrition debate.

### **3.2.3. Lessons learnt and challenges**

Although the correlatives of success varied among highly successful countries in reducing both poverty and hunger in Africa, they seem to have combined good economic growth performance, with a significant expansion of per capita agricultural or, especially food production and the equitable income distribution.

Productivity driven increases in food production have been shown to have a strong positive impact on the rural economy, leading to increased food availability and a reduction of food prices in local markets. At the same time, the enhanced incomes of smallholders-the main producers of staples-provide a stimulus to rural economic activity by generating increased demand for the Rural Non Farm Sectors products.

The considerable progress in term of poverty and hunger reduction in Ghana was the result of the introduction of new yam, maize, rice and cassava varieties, a 25% increase in cropped areas; and a rapid economic growth in other sectors. In addition the population gained better access to education, health services and safe water during the same period.

As result the under-five mortality rate fell from 15.7% in 1980 to 9.5% in 2003 and the prevalence of underweight in children decreased by about 9 percentage points. In several other West African countries, like Benin and Nigeria, hunger was also reduced from 1981 to 2003 (IFPRI-Welt Hunger Hilfe, 2006).

## **3.3. Agricultural productivity, growth and sectoral performance**

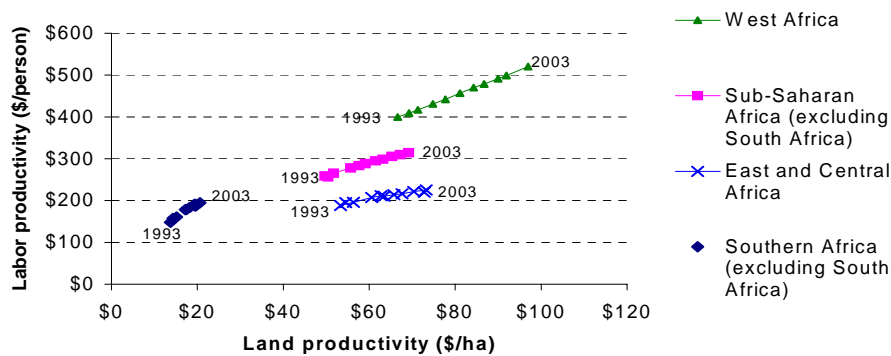
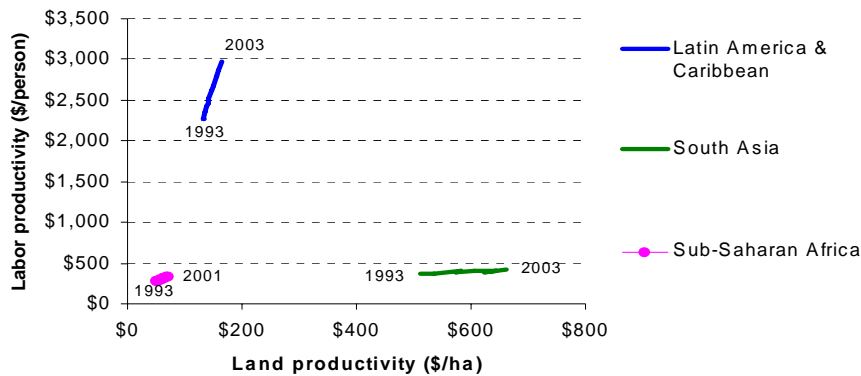
### **3.3.1. Commitment and progress**

One of the major commitments adopted by the CAADP Framework is the call for 6% agricultural growth rate in Africa. This is in line with the A21 advocacy for increased agricultural production on land already in use and by avoiding further encroachment on land that is only marginally suitable for cultivation and improved farm productivity in a sustainable manner (UNCED, 1992).

Agricultural productivity levels in Africa, in terms of both land and labour productivity, still lag far behind other developing regions. Much of the growth of output in Africa has been due to expanded use of land, labour and livestock, until the 1990s, when recent estimates imply that productivity growth has played an increasingly larger role. Total Factor Productivity grew at an annual rate of 1.3% on average during the 1990s, accounting for approximately 40% of the 3.1% annual growth in agricultural output. Growth in the traditional inputs of land, labour, and livestock accounted for the other 60% of agricultural output growth. To achieve the desired agricultural growth rate of 6% or more will require total factor productivity growth rates of 4.4% per year.



### Land and labour productivity (1993-2003)



Source: FARA-AU-NEPAD (2006)

The average annual growth in cereal yield in 1980-2000 has been low in SSA (0.7%) compared to Asia (2.3%), Latin America (1.9%) and the Middle East and North Africa (1.2). The average annual growth in food production per capita is evaluated at - 0.01 %, 2.3 %, 0.9 % and 1% respectively for the four regions for the same period (FARA-AU-NEPAD, 2006).

The African agriculture sector growth still is low and decreasing compared to the industry and services sectors dynamics. Between 2000 and 2004, the agricultural average annual growth rate was of 3.8 %, lower than the industry (5.2%) and services (4.6%). In 2005, this trend was maintained with respectively 3.4 %, 5% and 5.6% for the three economic sectors (AfDB, 2006).

The SSA average annual growth rate in crop and livestock production has fallen from 3.6% in 1985-1994 to 2.4% between 1995 and 2005. Per capita food production average annual rate growth has followed the same trend going from 0.8% to - 0.1 for the considered periods. The region presents the lowest level and progress in terms of cereal yield in the world from 1992 to 2004 (FAO, 2005).

### **3.3.2. Achievements and lessons**

#### **1. The Pan-African Cassava Initiative (PACI)**

The CGIAR system has considered Cassava (*Manihot esculenta* Crantz) the most important root crop in sub-Saharan Africa. Its average consumption exceeds 300 kg/person/year in some areas. Its hardy nature also means that it is moving into more marginal areas. Nonetheless it is faced with production constraints of pest, diseases, and poor soil fertility everywhere it is grown on the continent. Some of the most severe disease problems, for example the cassava mosaic disease, are found in Africa.

IFAD plays a key role in specific NEPAD initiatives aimed at disseminating new cassava-processing technologies and developing regional markets for the crop. Cassava production in Africa has more than tripled since 1961 – from 33 million metric tons per year to 101 metric tons – making the continent the largest producer. In countries like Ghana and Nigeria, wide adoption of high-yielding varieties and improved pest management has been largely responsible for the sharp rise in production.

Following IFAD-supported initiatives in the country, Nigeria is the world's top producer of cassava. IFAD has played a major role in enabling smallholders to increase their yields and incomes. The organization also supports the development of efficient markets for the crop that benefit both producers and processors.

IFAD currently has provided loans of more than US\$100 million to national programmes in Benin, Cameroon, Ghana and Nigeria since 1996, directly benefiting more than 1.5 million households. The organization's efforts support NEPAD's Pan African Cassava Initiative (PACI) in conjunction with the International Institute of Tropical Agriculture (IITA), based in Ibadan, Nigeria.

IFAD has developed the Regional Processing and Marketing Initiative on Cassava (RPMIC) for SSA which long-term objective is to link IFAD-funded root and tuber projects to regional market through the development of commodity chain. The initiative promotes innovative cassava-processing technologies and marketing opportunities combined with knowledge management and capacity strengthening. A start-up workshop was held in March 2006 in Accra, Ghana.

The CIAT project "Genetic Enhancement of Cassava", as part of its global responsibility for improving cassava, recognizes the importance of cassava in Africa and aids increased productivity through the provision of improved germplasm and training in conventional and new methods of cassava breeding.

Using a contribution from the Government of Italy, IFAD has set up a three-year support programme to catalyze the impact of its investment portfolio on cassava production in Africa and creating opportunities for scaling up innovations and good practices through information sharing and knowledge management in the context of NEPAD. Increased private sector investment is one of the key expected outputs.

## **2. The New Rice for Africa (NERICA)**

IFAD, FARA and NEPAD share a commitment to poverty reduction and improved nutrition in Africa through increased rice production. Consumption of rice is growing throughout SSA but the demand is growing faster than the supply, especially in West Africa, where annual imports cost at least US\$750 million.

IFAD has given three grants to the West Africa Rice Development Association (WARDA), an intergovernmental research association of 17 West African states, in order to support efforts to boost rice production, in particular new varieties known as New Rice for Africa (NERICA) combining the high-yield characteristics of Asian rice with the resistance of indigenous African strains. Through these grants, IFAD has established close links with WARDA's African Rice Initiative (ARI), launched in 2002 to promote the dissemination of NERICA.

About 30,000 farmers in 20 countries in SSA are using NERICA varieties, many of them women who spend numerous hours planting, weeding and harvesting rice. NERICA varieties have higher yields, thus reducing drudgery and increasing incomes, and they are also higher in protein, thus improving family nutrition.

The challenge now for WARDA, IFAD and other partners is to scale up the use of NERICA varieties even further, especially in eastern and southern Africa. This will also require improvements in seed production and distribution system.

## **3. The Pan-Africa Bean Research Alliance (PABRA) action**

Founded in 1996, PABRA is a consortium of African-owned regional bean networks, consisting of National Agricultural Research Systems (NARS) in a total of 18 countries in SSA, CIAT, ECABREN, SABRN and a number of donor organizations. PABRA's research and development (R&D) programme is implemented by PABRA partners (ECABREN, SABRN & CIAT), NARS, Non-Governmental Organizations (NGOs), Community-based Organizations (CBOs), selected rural communities, farmers (seed producers and on-farm researchers), traders and in a few situations the commercial private sector.

The focus is on improving the bean crop and increasing its productivity for the benefit of the urban and rural poor. The major beneficiaries of PABRA activities are women, who play the main role in the crop's production and post harvest handling in Africa. CIDA, SDC, USAID, ASARECA, DFID of the UK and the Rockefeller Foundation support components of the PABRA agenda.

Recent studies show significant adoption of bean varieties and pest management practices in Eastern and Southern Africa, with smallholder farmers, mostly women, reporting higher yields, fewer crop losses (to pests, diseases and low soil fertility), improved family nutrition and more cash income. By 2004, 245 releases of new bean varieties were made across all 18 countries, some with completely new attributes including resistance to previously intractable problems of African agriculture (such as the bean stem maggot, soils low in phosphorus). Improved climbing beans (with a yield three times that of the bush types traditional in Africa); continue to spread

from Rwanda to other countries in the region. More than 70% of households interviewed in Northern Tanzania and Western Kenya have adopted new bean technologies. In all cases those who adopt new technologies were better off than non-adopters in terms of both consumption and income from beans. For example in Uganda, household bean consumption was 40% higher and income was 45% higher for those households who had adopted the new varieties.

PABRA alliance members are currently targeting to reach a total of 10 million people (or 2 million households) across the continent within the next four years using a committed partnership of service providers. This target is likely to be passed sooner: in 2004 alone, partners produced seed of over 120 improved bean varieties which reached 1.25 million households across 10 countries. In some countries (such as Uganda for example), an emerging private seed sector has begun to work with the public sector and seed producers, at least for those varieties with large urban market demand and groups of small farmers are developing their own local seed enterprises with the support of PABRA.

PABRA is active in Sudan, Ethiopia, Uganda, Cameroon, DR. Congo, Angola, Kenya, Tanzania, Rwanda, Burundi, Zambia, Malawi, Zimbabwe, Mozambique, Madagascar, South Africa republic, Swaziland and Lesotho.

#### **4. Alliance for a Green Revolution in Africa (AGRA) and SASAGAWA: The role of private international foundations**

The AGRA, a joint initiative of the Rockefeller Foundation and Bill & Melinda Gates Foundation, is investing US\$ 150 million over a five-year period beginning in 2006 to support the programme for Africa Seed System (PASS) to help develop improved crop varieties, train scientists, ensure that improved seeds reach smallholder farmers, and develop a network of dealers to ease access of small scale farmers to agricultural inputs.

The primary goal of the Alliance is to increase the productivity and profitability of small-scale farming using technological, policy and institutional innovations that are environmentally and economically sustainable.

Its Program for a Green Revolution in Africa (ProGRA) will focus on promoting education for African crop improvement, funding improvement and adoption of African crops (200 new improved crop varieties to be developed and commercialized within the next five years). It is launching the “Seed Production for Africa Initiative” through business management, training and investment capital for growth of approximately 60 African seed companies and trade associations.

In addition, the alliance will promote the Agro-Dealer Development Program through training, capital and credit access for small agro-dealers, primary conduit of seeds, fertilizers and other farm inputs, and provide credit for 10,000 agro-dealers in the region.

Over its 20-year history, the Sasakawa-Global 2000 Partnership (SG200) has sponsored country technology transfer projects in 15 African nations. The first two food crop technology transfer projects were established in Ghana and Sudan in 1986, and a third project was set up in Zambia

in 1987 with an impressive impacts on maize yields in Ghana and wheat yields in Sudan associated with a rapidly increasing number of on-farm demonstrations of improved technologies. Activities were initiated in Tanzania, Benin and Togo, Tanzania, guinea, Mozambique, Burkina Faso, Malawi, Ethiopia, Uganda, Nigeria and Mali in 1988, 1989 and 1990

### **3.3.3. Lessons and challenges: the need to go beyond the technology production**

In addition to technology, there is a need to promote an adequate access to rural infrastructure in strengthening growth in agriculture as well as in the non-farm economy and rural towns. Distortions in prices also need to be removed to provide incentives for farmers to invest and produce.

Agricultural research and extension services should be significantly expanded and promoted in order to increase agricultural productivity. Higher investments in rural infrastructure, water and land management, communications and marketing and improved provision of health and education services are essential in raising farmers' productivity.

Creating improved trade opportunities for the developing countries is a key element of this agenda. The Doha Development Round of the WTO is yet to show results for farmers in developing countries by reducing domestic support in OECD countries and increasing market access. It is crucial to strengthen a rules-based system of fair trade.

## **3.4. Public investment in agriculture and Agricultural research spending in Africa**

### **3.4.1. The Maputo declaration**

#### **3.4.1.1. Commitment and tracking the progress**

African leaders have recognized the importance of increasing public investment in agriculture and adopted, in 2003, a target in the Maputo Declaration to allocate 10% or more of national budgets to agriculture/rural development by 2008 (NEPAD-CAADP, 2003). This would amount to some US\$ 4.6 billion and is in line with the A21 call for strong political support and adequate funding to the sector.

A 2002 survey of 24 countries showed that, on average, 3.5% of government budgets were allocated to agriculture/rural development in the region. Subsequent survey work in 2004 suggested that average expenditure remained at around 3.5 - 4%, indicating little early progress towards this target.

The AU Commission and NEPAD, in partnership with FAO and the World Bank have developed the Agricultural Expenditure Tracking System to monitor compliance with the allocation of 10% of the national budget to the agriculture sector. Preliminary survey results (from 19 countries) indicate 63 % of the countries allocate less than 5 %, 21 % allocate 5% to 10%, and 16 %

allocate greater than 10% (NEPAD/Abuja, 2006). At the current stage the average share of agricultural sector in African countries budgets is comprised between 2 to 5 %.

In the 10 countries for which a detailed review was conducted, the share of agriculture in government budgets declined from around 5% in 1990/91 to 3.5 % in 2001/02 - far below the target of 10 % set in the Maputo Declaration (NEPAD, FAO, Republique Francaise, 2005).

#### **3.4.1.2. Challenges and constraints**

While the stated goal of the “Maputo Declaration” is often referred to, it is still not clear how progress will be monitored or how donors can ensure that increased aid to Africa is used for the intended MDG-related purposes. The established peer review mechanism under NEPAD may help with that. There still be a necessity to build national and regional capacity to track expenditure and to develop and implement an electronic data capturing ad-hoc system (NEPAD/Abuja, 2006).

There is a need to establish a comprehensive mechanism for monitoring progress towards this target. A tracking system has been tested in 19 African countries, but data collection from other countries remains a major challenge (Africa Partnership Forum, 2006). Actually the questionnaire is being administered in the 53 countries with the support of the FAO and the World Bank.

The AU/NEPAD experts’ consultative workshops on the Agriculture Expenditure Tracking System and the Abuja AU Assembly decision emphasized the need for a definition of the core areas for the 10% budget allocation using an internationally accepted system that allows comparison across countries.

The Classification of Functions of Government (COFOG) System, as described in the “Guidance Note” developed by the AU/NEPAD for use in Agriculture Expenditure Tracking System, was advocated identifying Crop, Livestock, Fisheries and Forestry sectors (including Research and Development in these sectors) as core areas for the allocation of the 10%. The submission, by December 31 of each year, of duly completed Agriculture Expenditure Tracking System questionnaire to the African Union Commission by each country is identified as a mean to track progress. Monitoring the other agricultural funding sources (private sector, ODA, donors...) should be a component of a comprehensive agricultural spending tracking system for a broader picture of the phenomenon.

### **3.4.2. Agricultural research spending commitment**

#### **3.4.2.1. Targets and progress**

The A21 advocacy for the development and transfer of appropriate farm technology and the improvement of farm productivity in a sustainable manner (UNCED, 1992) enforces the role of the agricultural research in the SARD. This commitment is in line with the CAADP engagement to double the current annual spending on agriculture research in Africa within 10 years.

The spending on agricultural research to be increased by an average of 7.2 % a year during the next decade (CAADP, 2003) in order to improve agricultural growth to an average annual rate of 6% for the next 20 and reverse the decline of food production and incomes of the rural poor.

Most of the growth in public agricultural research spending in Africa took place in the 1960s when real (inflation-adjusted) spending increased by an annual average of 6.8% (Pardey *et al*, 1997). Time series data from 27 countries show that they spent more than \$1.1 billion in 1993 international dollars in 2000, close to one third more than the average of \$0.8 billion in the 1970s. The annual growth rate in spending declined from 2% in the 1970s to 1.3% in the 1980s, and to only 0.8% in the 1990s. Excluding Nigeria and South Africa, total public agricultural R&D spending in Africa actually declined by 0.3% per year in the 1990s.

Available statistics suggest a declining trend, with overall spending some 20% below that of other developing countries, and with Africa's share of global spending on agricultural R&D dropping from 6.8 to 6.3% between 1991 and 2000. On a per capita basis, agricultural R&D spending fell from US\$ 2.69 to US\$ 2.28 over the same period.

During the 1990s, about half the countries experienced negative annual growth in total agricultural R&D spending. Rates in Burundi, the Republic of Congo and Sudan fell below the negative 10% mark, for example. Declines resulted from political unrest or the completion of large donor funded projects. In contrast, total spending in Nigeria grew by an annual average of 6.3% in the 1990s. Spending in South Africa also grew during 1991–2000.

Total public spending as a percentage of agricultural GDP, the “intensity ratio”, is a common research investment indicator that helps place a country's agricultural R&D spending in an internationally comparable context. In 2000, Africa invested in agricultural research \$0.70 for every \$100 of agricultural output, lower than the \$0.84 in 1981. Excluding the two large systems, South Africa and Nigeria, the ratio was substantially lower, at 0.53, which is the result of the high research intensity in South Africa (3.04). At the country level, ratios ranged from 0.20% or lower in the Gambia, Niger and Sudan, to over 3% in Botswana, Mauritius and South Africa.

There is no universally recognized standard for the desirable level of agricultural research intensity in Africa. In the early 1980s the World Bank set a 2% target, which has been widely quoted ever since. Others, however, have found an intensity ratio of 1% to be a more realistic objective, but few countries in Africa have achieved even this lower target.

A recent report of the InterAcademy Council (IAC) recommends doubling Africa's agricultural research-intensity ratio from the current 0.7% to 1.5% by 2015 (IAC, 2004). This growth rate is seven times higher than the average growth rate the region experienced in the 1990s.

World Bank funding for African agricultural research went from a peak of US \$120 million in 1991 to US \$8 million in 2002 (in 1993 dollars). That of USAID went from a peak of US \$80 million in 1982 to US \$4 million in 1999. Other sectoral priorities, such as health and education, have emerged as funding competitors with agricultural research.

### **3.4.2.2. Initiatives and achievements**

#### **1. FARRA and the CAADP fourth pillar**

Created in 1997, FARA is the African continental agricultural research forum/institution with the mandate/mission to enhance and add value to the effectiveness and efficiency of African agricultural research. The AU and NEPAD have recognized it as their technical arm to lead and promote the implementation of the fourth pillar of the CAADP. By July 2002, the FARA secretariat was fully functioning and is currently hosted by the FAO Regional Office for Africa in Accra, Ghana. The founding members of FARA are the three sub-regional organizations (SROs) in Africa: ASARECA, CORAF-WECARD and SADC/FANR.

In response to NEPAD's wishes, FARA has, in consultation with stakeholders, developed the Framework for African Agricultural Productivity (FAAP). This framework addresses the challenges of CAADP Pillar IV and its aim to achieve strengthened agricultural knowledge systems delivering profitable and sustainable technologies and that are widely adopted by farmers resulting in sustained agricultural growth.

The African leaders adopted at the Banjul summit, in June 2006, the FAAP and its initial funding of US\$ 13 million has been mobilized, but more support is needed to reach US\$ 50 million goal by 2010.

MAPP is a FARA Programme which purpose is to identify, focus and make available resources required to implement NEPAD's CAADP's fourth pillar. It's objectives are to strengthen capacities of African agricultural technology development and delivery systems, increase investments by African governments in technology development and dissemination and link national, sub-regional and regional programs and networks with strong international partnerships to achieve efficiency and effectiveness.

MAPP is active in pilot COMESA-ASARECA countries (Djibouti, Ethiopia, Kenya and Uganda); ECOWAS-CORAF/WECARD members (Burkina Faso, Cameroon, Ghana, Nigeria, and Senegal) and SADC members (Botswana, Mozambique, South Africa and Zambia) in partnership with the NEPAD, Sub-Regional Organizations, Regional Economic Communities, National Agricultural Research System and National Governments.

#### **2. Innovative ways of funding A R&D initiatives and competitive funds role**

In 2000, private firms in a 27- African country sample invested \$26 million in agricultural R&D, in 1993 international dollars, representing only 2% of total (public and private) research investments that year. South Africa, with \$16 million, accounted for close to two thirds of agricultural research conducted by the private sector (Beintema and Stads, 2004).

In certain African countries (Kenya, Mali, Senegal and Tanzania as part of broader World Bank-financed projects), an increasing share of total research is financed through competitive funds typically aim to optimize the performance of agricultural research through increased collaboration between the various actors involved in agricultural research in a particular country.



Key elements of agricultural services reform in West Africa over the last few years has also involved: (i) the participation of producers in financing agricultural services; (ii) the promotion of demand-driven research and extension approaches; and (iii) the involvement of the private sector in providing agricultural services.

Success stories such as the example of the financial autonomy of the Palm Oil Research Institute in Ghana are still rare. The commercial sale of research results at the regional level has not been as successful as anticipated. In Mali, local communities must contribute financially some 20% of the total cost of agricultural services (essentially training producers on new agricultural production practices and techniques) obtained within the framework of the Agricultural Services and Producer Organizations Programme (PASAOP) (SWAC-Secretariat, March 2005).

#### **Innovative Funding Agricultural Research in Tanzania**

There are impressive attempts to expand potential sources of funds to agricultural research institutions while making research more demand-driven and client oriented in Tanzania.

Cesses on major commodity crops make a substantial contribution to the research budget for Tanzania's major export crops – on the order of 12 %. In some cases, the research has been privatized, and thus the cess constitutes the major source of funding (tea, coffee very recently, and tobacco eventually). In others, the government continues to cover staff salaries and basic facilities (cashew, cotton, sisal).

Agricultural research institutes are permitted to retain and manage internally generated revenues. Funds from these "self help" activities are relatively small. In gross terms, they run around 7% of total resources; net of related expenditures, the actual share is likely to be less than half that amount. The challenge is to make such activities truly profitable without diverting attention from research priorities.

Local governments are encouraged to contribute to the research priorities in their zones. However, the response to this new initiative is tentative and still monetarily insignificant.

Efforts to make research more demand-driven should help further allay the creators, the disseminators, and the users of research results. For some of the cash crops, incentive schemes link exports to researcher salaries.

Agricultural research funds have been set up at the zonal level to attract donors to finance locally-vetted priorities. Under its current agricultural research project (TARP II), the World Bank will use IDA funds to match contributions secured by zonal research fund managers (up to \$200,000/year). In spite of these efforts to attract funding to a demand-driven agenda, pitiful funding levels are strangling agricultural research in Tanzania. With the exception of the cesses, most of these innovations have little impact on the research budget. Researchers are often distracted. At an institutional level, much time is spent looking for funds, either for agricultural research (through contracts or grants) or for a series of non-research – and sometimes even non-agricultural activities (Source: IAC, 2004).

#### **3.4.2.3. Agricultural Research Constraints**

At present, farmers' needs and those of agri-business too often do not sufficiently drive the orientation of agricultural research and extension services, causing lack of relevance and impact. Even when relevant, know-how and technologies are too often not widely taken up by farmers, suggesting also the lack of effectiveness in the transfer of technologies.

In spite of its socio-economic impact, the agricultural research does not come high on the list of priorities in the Poverty Reduction Strategy Papers of African countries (FAAP, 2006). The reforms of extension services have left an “institutional void” which could hinder access to agricultural innovation. The Producer’s Organizations and private sector actors do not yet have sufficient human and financial capacity to take over. All this limits the ability of African NARs to have a great access to competitive funds.

### **3.5. Integrated Water Resources Management (IWRM)**

#### **3.5.1. Major commitment on water**

As reiterated in the resolutions and recommendations of the various conferences and meetings held in the region and outside, the key challenges in the water sector are the following: meeting basic water and sanitation needs, securing food and energy supply, protecting ecosystems, applying IWRM principles and practices, managing risks, governing water wisely, ensuring the knowledge transformation. These commitments are in line with the A21 call for water uses for sustainable food production and sustainable rural development and the CAADP first pillar advocacy.

While a lot of efforts have gone towards meeting the internationally agreed goals and targets relating to water, the outputs fall much below expectations.

#### **3.5.2. Progress and achievements**

There is a strong political commitment by the African leaders to confront the water challenges in the Region. The launching of a group of initiatives under the NEPAD and AMCOW, and the support being provided to them are an illustration.

##### **1. The “Investment in Agricultural Water Management in SSA”: ADB study**

The ADB is actively involved in capacity building by sponsoring a study on “Investment in Agricultural Water Management in SSA” which is a collaborative program between NEPAD, FAO, IFAD, IMWI, the World Bank and AfDB to look at opportunities for private sector participation in Agricultural Water Development in SSA as well as to poverty considerations in investments in Agricultural Water Management.

##### **2. The AfDB, the African Water Task Force and the African Water Facility**

The African Development Bank has been a significant player, not only in providing funds, but also playing a role in policy coordination and development in the water sector. Over the past 30 years commitments to the water sector have exceeded \$5 billion with over 60% of that amount going to water and sanitation projects.

At a meeting organized by AfDB in September 2001, it was decided to establish the African Water Task Force to help African water stakeholders focus the world's attention on African water issues at the World Summit on Sustainable Development (WSSD) and the Third World Water

Forum. In April 2002, the African Water Task Force (AWTF), with the support of the AfDB, organized a Stakeholders Conference on Water and Sustainable Development in Accra, Ghana. One of the results of the Accra Stakeholders Conference was to recommend the creation of an African Water Facility (AWF) to be housed within the AfDB.

The African Water Facility focuses its efforts at resource mobilization and applying these for activities in the African water sector with the view to improving the enabling environment to attract more investments and direct capital investments, capacity building at both the National and Regional levels and policy, legal and institutional reform processes related to the water sector in Africa. The African Water Facility improved access to Water Supply and Sanitation in Rural Cameroon in 2006.

### **3. The African Minister's Council on Water (AMCOW)**

In a meeting organized by UNEP in April 2002 in Abuja, Ministers responsible for water in 41 African countries decided to form AMCOW primarily to promote cooperation, security, social and economic development and poverty eradication in member states through the management of water resources and provision of water supply services.

The mission of AMCOW is to provide political leadership, policy direction and advocacy in the provision, use and management of water resources for sustainable social and economic development and maintenance of African ecosystems.

Members of AFCOW are from Central African Republic, Democratic Republic of Congo, Chad, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, Burundi, Kenya, Uganda, Tanzania, Rwanda, Sudan, Ethiopia, Eritrea, Djibouti, Somalia, Comoros, Mauritania, Morocco, West Sahara, Algeria, Tunisia, Libya, Egypt, South Africa, Madagascar, Swaziland, Lesotho, Botswana, Namibia, Angola, Zambia, Zimbabwe, Mozambique, Malawi, Mauritius, Seychelles, Niger, Benin, Togo, Ghana, Burkina Faso, Cote d'Ivoire, Liberia, Gambia, Mali, Guinea Conakry, Guinea Bissau, Cape Verde Island, Senegal, Nigeria and Sierra Leone.

### **4. Establishment of trans-boundary water basin authorities**

A strong effort is being exerted to establish new water basin organizations or strengthen existing organizations in Africa. The NEPAD, with its emphasis on regional cooperation and integration is also creating the opportunity to link national and sub-regional approaches to managing water resources.

The African Network of Basin Organizations (ANBO), created in 2002 in Dakar, aimed at enabling the mobilization of the real and practical experience of decision-makers and professionals of the administrations and organizations concerned, directly responsible for the effective implementation of Integrated Water Resource Management at the level of river, lake and aquifers basins or wishing to implement it in their respective countries.

The ANBO has up to date 42 members and observers of which: 17 basin organizations, 8 international organizations, 9 water administrations, 3 projects or programmes, 5 others stakeholders (Universities, civil society organizations...). Over the last two years, five new requests for membership have been recorded (Global Water Partnership/Eastern Africa, Zambezi River Authority, Lake Victoria Basin Commission, Observatory for the Sahel and the Sahara – OSS, Niger Basin Authority (ABFN)) and two requests have to be confirmed (the new Volta Basin Authority and the Co-ordination Unit of the water resource management of ECOWAS).

ANBO is currently promoting two main projects: The African Water-related Information System Project and The Development of Performance Indicators for management of African Basins.

On the initiative of the AMCOW, the Basin Organizations' Conference was held in Kampala, in October 2006. The conference specifically recommended that ANBO be recognized by AMCOW and the African Union as an asset to be consolidated in order to install co-operation between the African basin organizations (International Network of Basin Organizations, 2007).

#### **The water basin development in the SADC**

A good example of the development of the water basin is the SADC Protocol. In the Southern Africa region, are found important rivers such as the Zambezi, the Limpopo and the Orange-Senqu. Water resources in parts of the region are scarce and unevenly distributed. The 14 SADC member countries have undertaken several important initiatives that are intended to make shared river courses sources of cooperation rather than sources of conflict. They have agreed, in principle, on integrated and cooperative management of trans-boundary river basins.

The general framework for such cooperative endeavors is provided by the (Revised) SADC Protocol on Shared Watercourse Systems (1995/2000) and the establishment of the SADC water sector (established 1996). In addition, sixteen agreements related to trans-boundary water courses are in place, including agreements establishing general watercourse commissions, agreements concerning single watercourses and agreements dealing with specific watercourse projects (e.g. dams). Several bilateral and multilateral general water course commissions, specialized river and lake basin commissions, technical committees and development authorities responsible for the integrated water resources management (IWRM) of transboundary river courses have been set up by the SADC governments<sup>1</sup>.

### **5. NEPAD Water and Sanitation Infrastructure Program**

The NEPAD Water and Sanitation Programme is focused on three main themes, grouped as i) better management and development of Africa's water resources, ii) improvement and expansion of basic water supply and sanitation services and iii) enhanced financing for the water sector.

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<sup>1</sup> Transboundary Rivers and Crisis Prevention, Bonn International Centre for Conversion, BICC water Page 2005.

A strategy comprising a Medium to Long-term Strategic Framework (MLTSF) and a Short Term Action Plan (STAP) has been developed for implementing the Water and Sanitation Programme.

The implementation of STAP, with respect to trans-boundary water resources, has focused on NEPAD's involvement in seven river and lake basins: the Niger and Senegal in West Africa; Congo and Lake Chad in Central Africa; Nile in East Africa; and Zambezi and Okavango in Southern Africa.

The overall objectives of the MLTSF are to provide a framework to guide the continuous and consistent development of infrastructure on the continent based on coherent strategic goals, and to define and institute a monitoring framework to track gaps and progress. The MLTSF focuses on three main themes: i) Management and Development of African Water Resources to ensure water security and to strengthen the capacity to manage trans-boundary water resources ii) Expansion and Improvement of Water and Sanitation Services and iii) Enhancing Finance for Resources Development.

## **6. Rural Water Supply and Sanitation Initiative**

The African Development Bank together with AMCOW has developed the Rural Water Supply and Sanitation Initiative (RWSSI). It constitutes by far the most important AfDB's water initiative. The initiative was launched during the First AfDB Water Week in 2004 and has the backing of AMCOW as well as regional and international partners.

The overall goal of the RWSSI is poverty reduction through the provision of safe water and basic sanitation to 80% of the rural populations in Africa by 2015, with eventual 100 % coverage by 2025, as stated in the MDGs. The RWSSI targets are set to achieve 50 % access by 2007, 66 % access by 2010 and 80 % access by year 2015. It is estimated that about 277 million additional people would have access to drinking water and 295 million would benefit from sanitation services by the year 2015.

The total investment required for achieving 80 % coverage by 2015 is estimated to be about US\$14.2 billion. 30% of the overall requirements will be obtained through ADF replenishment and Loans from the AfDB, 50 % from bilateral and multilateral donors, 15 % from the recipient governments, and 5 % from the beneficiary communities.

The Initiative was accepted at the Paris Conference by African countries, representatives of developed countries, multilateral and bilateral donor agencies, and civil society organizations as a platform to coordinate the efforts of African countries and their partners in accelerating access to water supply and sanitation in rural areas.

The AfDB established the RWSSI Trust Fund in January 2006. It is a Multi-donor Fund, supported by Denmark, France and the Netherlands, to complement the AfDB financing of the RWSSI and to help the continent's premier development finance institution to make greater impact in the provision of rural drinking water and sanitation in Africa. The three donor countries have channeled a total amount equivalent to € 90 million grant through this trust fund (respectively €40 million from France, DKK 230 million from Denmark and \$US 25.5 million from the Netherlands).

In January 2007 the African Development Bank (AfDB) hosted the First Rural Water Supply and Sanitation Initiative Multi-donor Trust Fund (RWSSI Trust Fund) Steering Committee, gathering donors, respectively Denmark, France and the Netherlands, and AfDB representatives to discuss and validate the RWSSI Trust Fund Indicative Budget, strategy and operations in targeted African countries for the year 2007.

The Initiative already supports 13 countries and is expected to extend its services very soon to 19 countries and thereafter to all the African countries that have defined a National Water Strategy. The 13 benefiting countries to date are Mali, Rwanda, Ghana, Benin, Senegal, Uganda, Madagascar, Ethiopia, Morocco, Chad, Tanzania, Mauritania and Zambia. Projected beneficiary countries in 2007 are Niger, Burkina Faso, Kenya, Mali (Second Programme), Mozambique and Nigeria.

### **3.5.3. Constraints on water**

Poverty is the single most influential factor related to the sustainable provision of basic water and sanitation services and food and energy security while the temporal and spatial variability compounded with unpredictability and climate change is at the heart of resource insecurity. A key factor which constraints the planning and monitoring of development activities at national, sub-regional and continental levels in Africa is the paucity of data on water resources.

Available water resources in Africa are being depleted through man-made actions that reduce both their quality and quantity. The low levels of development and exploitation of water resources cannot face the growing demand for water in response to population growth and economic development.

The multiplicity of international water basins in a climate of weak international water laws and regional cooperation is feeding the political instability and conflict within and between countries.

## **3.6. The development of holistic national policy for SARD in Africa**

### **3.6.1. Commitment**

The A21 calls countries to maintain and develop operational multisectoral plans, programmes and policy measures, including programmes and measures to enhance sustainable food production and food security within the framework of sustainable development, not late than 1998 (UNCED, 1992).

### **3.6.2. Progress and initiatives**

The CAADP initiative is a manifestation of African governments' commitment to address issues of growth in the agricultural sector, rural development and food security. Perceived by all stakeholders as an African-conceived, led and owned process, the CAADP offers an integrated framework of agricultural and rural development priorities that comprises four pillars

- (i) Expansion of area under sustainable land management and reliable water control systems;
- (ii) Improvement of rural infrastructure and trade-related capacities for better market access;

(iii) Enhancement of food supply and reduction of hunger (including emphasis on emergencies and disasters that require food and agricultural responses) and (iv) Development of agricultural research technology dissemination and adoption to sustain long-term productivity growth.

### **1. The CAADP endorsement process and countries` alignment**

The Endorsement of the CAADP process has been undertaken through sequential steps going from the conceptualization processes commenced with key stakeholders in May 2002, the recognition by African ministers of agriculture in Rome in June 2002, the heads of regional economic organizations review and the first action plan in December 2002.

In July 2003, the African Union Summit endorsed the CAADP and adopted the declaration on agriculture and food security. The February 2004 African Union extraordinary Summit reinforced the commitment to the sector and adopted a declaration on water for agriculture. In October 2004, the African Partnership Forum in Washington DC endorsed the CAADP road map.

The approval of the CAADP by partners intervened through the Sea Island commitment to support agriculture in July 2004 and the road map endorsement by G8-NEPAD-ADF in October of the same year. The NEPAD-CAADP retreat for RECs and development Partners was held in Oct 2005. The SADC has already started implement some of the CAADP priority activities, such as, the SADC-AfDB irrigation project (US \$150 millions) and the SADC-FARA-World Bank Project (US \$60 millions) under FAAP.

Although some countries have established clear development strategies for their agricultural sectors, aligned with CAADP principles and linked directly into national growth and poverty reduction strategies, many have not registered progress so far. This is sometimes resulting in a mix of programmes and initiatives heavily influenced by donor resources and policies, and lacking consistency. Progress at country level in implementing CAADP has proved challenging, and although African governments have agreed to hold 18 country roundtables by end 2006, these have been very slow to get off the ground.

Many targets and commitments, including (i) the 2004 Maputo Declaration calling for 10% of total public expenditure to be spent on agriculture and rural development (ii) the 2006 Abuja Declaration on Fertilizers calling for an increase in fertilizer use from 8-50kg per hectare by 2015 and (iii) the 2004 Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development on Agriculture and Water in Africa provide strong political support to the CAADP process.

### **2. The AfDB action in SARD policy development**

In line with its Agriculture and Rural Development Sector Policy (2000), the AfDB assists African countries to develop comprehensive and realistic plans for rural development and agricultural modernization, particularly at the regional and country-level. The plans focus on policy, institutional, and technological changes, food security, community-based organization programs, and land tenure security to effect a transformation in Africa's rural areas.

During the last two years, AfDB approved loans and grants for 26 projects in the agriculture and rural development sector in regional member countries, amounting to UA 274.5 million (average exchange rate 1UA=\$ 1.48 during 2004), representing 15.5% of total bank Group lending for the year. For the concessional and non-concessional windows, Bank Group assistance to agriculture and rural development amounted to UA 242.4 million and UA 32.2 million respectively.

Investment in Agriculture and Rural Development project and programs focused mainly on poverty reduction, fisheries, and food security. Many projects and programs were at the multinational level, including: the Project to Support the Lake Tanganyika Integrated Regional Development Program (PRODAP), the Water Resource Planning and Management in the Nile Basin, and the Agricultural Marketing Promotion and Regional Integration Project in the COMESA region. Other approved projects and programs for this sector in 2004 included the Farm Income Enhancement and Forest Conservation Project in Uganda, the Third Line of Credit and the Tandjieskoppe Green Scheme Project in Namibia, and the District Agricultural Sector Investment Project in Tanzania.

Emphasis was also placed on the sustainable management of natural resources, watersheds, and areas that are sensitive to degradation such as springs and mountain slopes as well as conservation of soils and soil erosion control (e.g. in Burkina Faso and Mauritania). This includes projects for rehabilitation of basins suitable for flood recession crop cultivation (e.g. in Mauritania), development of farmland, and management of river basins.

### **3.6.3. Challenges in implementing the CAADP**

A number of multilateral and bilateral agencies are working to adopt the CAADP principles, in line with the broader commitments from development partners in the 2005 Paris declaration, towards harmonizing and aligning ODA. But more needs to be done both to broaden and accelerate this process as some development partners are still creating parallel processes and pledging arrangements, and institutional holding back the pace of progress (APF, 2006).

The alignment of development assistance with CAADP Objectives and principles, Securing commitment by partners to work with national governments and the private sector to meet the required level of investments should be enhanced. There is a need to avoid setting up new process and build on ongoing efforts at national level, aligning national efforts with the CAADP growth, budgetary, food and nutrition security objectives and add value to national efforts where needed (AU/NEPAD Partnership Platform Meeting-28-29 September 2006).

African governments need to undergo mindset change so as to focus on raising the necessary resources from internal revenue (AU, 2006) and creating conducive environment for the private sector to increase investment.



### **3.7. Rural participation, decentralization and capacity strengthening**

#### **3.7.1. The commitment and Progress**

The chapter 14 of the A21 and its translation into concrete actions through the JPOI call for people's participation and a great community control over the resources on which it relies. They advocate decentralization policies development and rural organizations' strengthening as a way toward sustainable agriculture and rural development (UNCED, 1992).

African countries have increasingly adopted the integration of Local Governments (LG) in public expenditure system (Eritrea, Madagascar, Zambia, Zimbabwe...) and remarkable involvement of Local Government Authorities (LGAs) and impact on their capacity, transparency, and accountability. There is an increasing success with direct resource transfers to communities and LG, diversity of projects in addition to social funds and increased participatory planning at community and LG levels (de Regt, 2003).

The significant increase in political commitment to Community Driven Development (CDD) is visible in the region. Many countries are ready with full integration of CDD while others are progressing in this effort. Decentralization initiatives are conducted in most countries within the current context of increased democratization (Burkina Faso, Ethiopia, Malawi, Mali, Uganda) supported by the donor action (principally the World Bank, UNDP, UNCDF, and EU). Many capacity building projects, partnerships, practitioner training and regional learning programs are conducted at the community and LG level but there is a clear need for coordination among actors involved.

#### **3.7.2. Achievements**

##### **1. Rural farmers Participation in the policy level: NEPAD-IFAP Partnership**

IFAD's most significant ongoing contribution to the NEPAD process, and to preparations for implementing the CAADP, is to enable the rural poor and their organizations to voice their needs and participate in the agricultural policy dialogue.

In June 2004, IFAD and NEPAD signed a memorandum of understanding setting out collaborative approaches for strengthening rural civil society groups, promoting participatory consultations and incorporating the opinions of rural people into NEPAD's agricultural strategy. IFAD has been working closely for several years with the ROPPA, a network of farmers' groups in West Africa, to build its capacity to amplify the voices of the rural poor and building consensus among farmers' groups throughout Africa in response to the CAADP.

In July 2003, IFAD assisted ROPPA and its counterparts in central, eastern and southern Africa to hold three regional consultations on NEPAD's policy programme. The farmers' organizations prepared their contributions and presented them at a synthesis workshop held in Pretoria, South Africa in February 2004. This collaboration led to the establishment of an ad hoc committee of producers' organizations of SSA

In May 2005, IFAD took part in the G8/NEPAD summit on the Implementation of the CAADP held in Accra, Ghana. Farmers' organizations, government representatives, private sector leaders, G8 members, heads of bilateral and multilateral development organizations, regional economic communities and civil society groups all attended the meeting. IFAD also took part in the CAADP Retreat in Pretoria, South Africa, in October 2005 in order to cement grassroots participation in the CAADP.

Building on its work with farmers' organizations in Africa and beyond, IFAD established the Farmers' Forum in 2006. This is a global process of consultation on rural development and poverty reduction that starts at the grass roots. More than 50 leaders of farmers' organizations, representing millions of smallholders and rural producers from around the world, attended the meeting, which was a major innovation.

## **2. CDD, Decentralization and rural empowerment: Africa on the track**

Many African countries have responded to the decentralization and local empowerment challenges and adopted an approach to rural development that involves farmers in decision-making consistent with the increasing democratization and the declining ability of African governments to manage and finance rural development.

Rwanda Decentralization and Community Development Project (DCDP) combines the processes of decentralization with a move to greater degrees of CDD. It involves 39 districts in the national decentralization program ending in 2008. The Northern Uganda Social Action Fund (NUSAF) in line with the Local Government Act of 1997, the Sudan Community Development Fund Project (CDF) and the Participatory District Planning in Mozambique ambition to bring services closer to beneficiary communities empowering them by enhancing their capacity to systematically identify, prioritize, and plan for their needs within their own value system.

To support these efforts, IFAD had launched the process of developing a more systematic approach to CDD as an effective vehicle to reducing rural poverty through increased empowerment, improved access to services and better incomes for the rural poor in Africa. It organized the Accra Regional Workshop in March 2006 which brought together a wide variety of participants from community organizations, civil society, development projects and programmes, government, donors and scholars from West and Central Africa, South Africa, Latin America, Asia and Europe. The workshop aimed at exchanging experiences, building future efforts and exploring together the need for a platform that could facilitate CDD knowledge management in the West and Central Africa region.

### **Box 2. Entire countries can be covered quickly by CDD**

Benin has covered a little over half of the 500 villages in the Borgou region within six months with participatory appraisal, using resources already available in the region. This implied that entire countries could be covered with additional resources from outside. More than 6,000 villages have now been covered in other African countries such as Burkina Faso, Cameroon, Cote d'Ivoire, Guinea, Madagascar, Malawi, Mali, and Uganda. Tanzania, Togo and Zambia are about to follow suit.

Lessons learned from these experiments are: Start with a national exercise for harmonizing participatory appraisal of projects. In the past, the balkanization of donor efforts has been a major hurdle to national coverage. This can be overcome if donors and central government pull together.

The next step is to train the staff of the various agencies. Successful countries have used small but strong teams of national trainers at the regional (or district) level. The faster local agencies pool their resources, the faster national coverage can be achieved.

Start simultaneously in as many regions as possible: Madagascar has started pilot projects in all its 29 regions. Each region can then establish its own action plan to reach regional coverage, tailored to available resources (World Bank, 2003).

Trough the review of their co-operatives policies, African states are also undertaking legislative and institutional reforms granting greater autonomy to co-operatives and limiting the government role in their development.

The revision of Uganda's Co-operative Legislation, the promotion of new cooperatives and farmer groups in Namibia, the support for farmer organizations in Cameroon and privatization of agricultural cooperatives in Burundi (1993) are concrete achievements in this way.

### **3.8. Integrated Pest Management (IPM)**

The A21 advocated in its chapter 14 to improve and implement, not later than the year 2000, plant protection and animal health services, including the mechanisms to control the distribution and use of pesticides and to put the IPM practices within the reach of farmers through farmer networks, extension services and research institutions.

#### **3.8.1. Progress**

IPM in Africa has had a limited impact in raising agricultural productivity in most sectors. Poor access to IPM knowledge and poor interactive networking has been major constraints in the effective development and implementation of IPM. Although a number of promising IPM options are becoming available, adoption of IPM at farm level, especially in Africa, is disappointingly slow.

The total stockpiles estimated to exist in Africa including heavily contaminated soils and empty and contaminated pesticide containers is nearly 50,000 tons and is likely to increase above this total. The decline in hazardous waste traders targeting Africa is evident given the adoption of a

very clear and strong common African policy on the issue - condemning all such imports into Africa for any reason. In particular, the OAU resolutions, the Lomé IV Convention, and the Bamako Convention were all adopted between 1988 and 1991. This sent a strong message to the rest of the world that Africa is off-limits for such trade. Individual African States also took strong measures to stop the hazardous waste trade.

### **3.8.2. Some achievements related to POPs and challenges**

#### **1. The obsolete stockpiles inventory in Africa**

The FAO has compiled an inventory of obsolete stockpiles for 45 countries in Africa and the Near East and a few countries in the Far East, Latin and Central America and the Caribbean. In most cases, the inventory includes producers, suppliers and responsible donor organizations.

#### **2. The Cotonou Workshop on IPM Constraints, opportunities and issues**

The NGO Committee of the Consultative Group for International Agricultural Research (CGIAR) and the International Institute of Tropical Agriculture (IITA), through a grant from Swiss Development Cooperation (SDC), convened a workshop, held at IITA's Biological Control Center for Africa, Cotonou, Benin, from 29th March to 3rd April, 1999.

The 36 participants were representatives of NGOs, national agricultural research and extension systems and international research institutes from 14 African countries. Through a series of participatory activities, participants gained an understanding of key issues and practical experience of tools that support the generation and adoption of IPM options. Together they conducted an analysis of constraints to, and opportunities for, IPM in Africa and developed an action plan to respond to these challenges.

The key issues identified as IPM constraints in Africa are (a) Inadequate participatory planning/approaches to IPM and research responses, (b) Persistent extension bottlenecks, (c) Insufficient training and communication, (d) Inadequate policies and/or their enforcement to protect IPM, and (e) Inadequate funding to support IPM (CGIAR/NGO-IPM network-Africa, 1999).

#### **3. The West African Regional Consortium of IPM Excellence ambition**

Faculty from Virginia tech, University of California-Davis, Purdue University and Fort Valley State University are collaborating with research and extension units from five West African countries (Burkina Faso, Gambia, Guinea, Mali and Senegal) in a project featuring IPM research on a variety of commodities.

This project includes an investment plan for a strong collaboration of West African host country partners. It focuses on research that will improve the livelihoods of farmers and rural agricultural households as well as environment.

The main features of this project are: (1) Development of a regional pest management system for whitefly pests as they affect production of a variety of crops (tomatoes, potatoes, cotton, etc.) grown in the West African region. (2) Development and implementation of IPM strategies for viral diseases of tomato based on improved understanding of pathogen ecology and biology in West Africa (3) Development of information on the influence of agroecosystem biodiversity on plant virus levels and, (4) Development a regional quality assurance program addressing pesticide safety education and pesticide residue chemistry training.

#### **4. The Inter-Organization Programme for the Sound Management of Chemicals (IOMC) action**

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC), was established in 1995 by UNEP, ILO, FAO, WHO, UNIDO and OECD (Participating Organizations), following recommendations made by the 1992 UNCED to strengthen cooperation and increase coordination in the field of chemical safety. In January 1998, The United Nations Institute for Training and Research (UNITAR) formally joined the IOMC as a Participating Organization.

The purpose of the IOMC is to promote coordination of the policies and activities pursued by the Participating Organizations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.

#### **5. The Global IPM Facility action in Africa**

The GIPMF was established in 1997 to help governments; communities and sponsors accelerate the implementation of IPM through facilitating links between IPM implementers and necessary technical, policy and training expertise. It is hosted by FAO in Rome and was initiated with the co-sponsorship of FAO, UNDP, UNEP and The World Bank. It is currently supported by grants from the governments of The Netherlands, Norway and Switzerland.

The objective of the Facility is to assist interested governments and NGOs to initiate, develop or expand national IPM programmes and to develop and promote international standards for effective participatory IPM. It helps aid agencies in identifying opportunities for assistance to sound IPM projects and enhance co-ordination both at donor level and national level in recipient governments.

The Global IPM Facility, in cooperation with several West African countries, has developed a project for the GEF International Waters Programme focusing on prevention of build up and exposure to Persistent Toxic Substances (including pesticides which exhibit POPs like characteristics). The project work with and through communities with IPM Farmers Field Schools that are reducing overuse of pesticides in irrigated rice and vegetable production with support from a sub-regional IPM Programme funded by the Netherlands.

The GEF project has been approved and will initially focus on the Senegal River valley in Senegal. The second phase will prepare a full-scale GEF project involving Benin, Guinea, Mauritania, Mali, Niger and Senegal.

The facility has trained farmers in Field Schools Education, accompanied Development of National IPM policy and subsidized IPM projects with good implementation proactive via donor funds challenges. Some African countries which have benefited from the Global IPMF activities are: Benin, Burkina Faso, Egypt, Ghana, Kenya, Senegal Tanzania, Zambia and Zimbabwe.

#### **6. The African Tree Pest Management Network (ATPMN)**

The Forestry Institutions in the Central, Eastern and Southern Africa collectively became aware of their responsibilities in attempting to reduce the damage caused by tree pests in the region. In the mid-1990's, they came together and established a regional Network of Tree Pest Management Network (ATPMN 1997).

The objective of the Network is to contain the damage caused by pests to trees and forest products in the African region within economically, socially and environmentally acceptable levels, through regional networking for effective and sustainable pest management. The Network undertakes activities aimed at improving information flow in the region, availability of key resources and pest management systems. It recommends appropriate policies and actions and promotes collaborative activities in tree pest management.

#### **7. The IPM Information Partnership and Africa**

The IPM Information Partnership was formed in 1996, between CICP, the IPM Forum, IPM Europe, and the CGIAR System-wide Program for IPM, to improve access to IPM information. Recent additions to the partnership include the IPM Collaborative Research Support Program (IPM-CRSP) and CAB International

The IPM Information Partnership initiated a workshop on “Integrated Pest Management Communications for Eastern and Southern Africa” on March 1-6, 1998, in Nairobi, Kenya at the International Centre for Insect Physiology and Ecology (ICIPE) with the CTA and USAID financial support. This regional workshop brought together a number of key players involved in IPM research, extension, implementation and Information Technology (IT) professionals from Africa, Europe, and America, representing research, academics, NGOs, farmers' groups, and donor institutions.

The purpose of the workshop was to explore ways in which access to electronic mail and the Internet could enhance communication and knowledge transfer of IPM in SSA. The ultimate aim was to facilitate delivery of IPM information in order to improve development and implementation of IPM by the farmer in collaboration with research and extension intermediaries. Poor communication between farmers and researchers is believed by many stakeholders in the agricultural development process to be a constraint limiting IPM adoption.

#### **8. The FAO programme and the Africa Stockpile Programme (ASP) initiatives**

The FAO programme on “Prevention and Disposal of Obsolete Pesticides” has been in operation since 1994. This programme was initiated with the support of a Netherlands Trust Fund. During its initial phase its focus was in Africa and the Near East. Its experience obtained through the

inventory data from government sources from 46 countries in Africa and the Near East shows that in the order of 30% of the 50,000 tons of obsolete pesticides are POP pesticides.

FAO in cooperation with UNEP Chemicals, the Secretariat of the Basel Convention, UNIDO, the ECA, the Organization of African Unity (OAU), the World Bank, the AfDB, WWF, the Pesticide Action Network (PAN) and Crop Life International has established the Africa Stockpile Programme (ASP).

Approved for the first phase in September 2005, the ASP ambitions to clean up and dispose of existing pesticide stockpiles throughout Africa within the next 10 to 15 years, and to help prevent future accumulations, at a total cost of US\$ 250-300 million. ASP will help develop suitable measures to prevent the recurrence of obsolete pesticide accumulation. The total budget for prevention is estimated at US\$50-75 million.

The Global Environment Facility (GEF) has funded the ASP for \$25 million, additional to co-financing from donor governments. Over \$50 million has been raised for the first phase of activities in 15 countries. Close to another \$20 million, however, is still required for phase 1 work and phase 2 planning. Additional funding comes from donor governments including Belgium, Canada, Denmark, Finland, France, Japan and Switzerland, as well as from the European Union and the World Bank's Development Grant Facility. CLI, SIDA and other partners are also providing direct funding and/or in-kind contributions.

All the African countries that have ratified the Stockholm Convention (2001) are eligible to take part in the ASP. Countries participating in the first phase of clean up and prevention activities are Ethiopia, Mali, Morocco, South Africa, Tanzania and Tunisia. Nigeria will carry out prevention work and preparations for disposal. Inventory estimates indicate that there are about 10,000 tons of obsolete pesticides at more than 1400 sites in these countries.

Further preparatory operations and prevention activities have begun in 2005-06 in additional countries selected based on their ratification of the Stockholm Convention, geographic distribution, pesticide stockpiles problems, commitment to ASP objectives and other factors.

Preparations for clean-up work include a range of activities involving the training of personnel, detailed inventory of obsolete pesticide stocks, environmental risk assessment of pesticide storage sites, technical and financial planning, and emergency safeguarding of any pesticide stocks that pose especially high risk to health and/or environment. Countries concerned by this follow-on phase include Benin, Botswana, Cameroon, Côte d'Ivoire, Egypt, Ghana, Lesotho, Mozambique, Rwanda and Senegal. Inventory estimates indicate that there are more than 4000 tons of obsolete pesticides at hundreds of sites in these countries (Curtis and Olsen, 2004).

### **3.8.3. Challenges in POPs management**

Persistent Organic Pollutants (POPs), as chemicals that persist for several years in the environment, are accumulated to high concentrations in fatty tissues and are magnified through the food chain, and hence constitute a serious risk of causing long-term damage to human health and the environment.

To facilitate safe destruction, the new POPs treaty includes specific provisions for the safe disposal of obsolete stockpiles of POPs using appropriate, non-incineration destruction technologies that do not create POPs. Only few African countries have benefited from the aid/development support to facilitate safe destruction of POPs (Niger (1991), Uganda (1993), Madagascar (1993), Mozambique (1994), Tanzania (1995/96), Zambia (1997), Seychelles (1997) Mauritania (1997), the Gambia (2000) and Ethiopia (2001)).

Consequently, FAO states that as of 1999 only 5% of all obsolete pesticides identified so far have been removed from Africa. If the present trend continues, the whole process of eliminating obsolete pesticides from Africa would take fifty years. There is a need for a concerted international action to solve the problem more quickly.

### **3. 9. Rural energy commitment**

#### **1. Commitment and progress**

Energy inputs are recognized as a key factor in achieving SARD. The A21 calls for specific effort in the energy field to enhance productivity, promote sustainability and a better environment.

Although it is also generally recognized that energy is central to MDGs, many African countries continue to be among the lowest per capita energy consumers in the world (FAO, 1995). More than 500 million people in SSA lack access to electricity, the connection rates are as low as 5% in rural areas.

Traditional biomass use is widespread. 80% of SSA depends on fuel-wood and charcoal for cooking and water heating. Over 95% of households in the poorest countries in SSA cook with biomass on open fires or primitive stoves. 23 out of 48 SSA countries are currently vulnerable. Some initiatives have been launched to inverse this trend in the region.

#### **2. Achievements and initiatives**

##### **2. 1. UN-Energy/Africa**

Following the creation on April 14-15, 2004 in Rome of UN-Energy, African Energy Ministers adopted a recommendation for the creation of UN Energy/Africa in a meeting co-organized by UNEP, ECA and the AU on May 8, 2004 in Nairobi.

UN Energy/Africa is a regional collaborative framework with the objective to promote more efficient, coherent and coordinated actions of UN and non-UN organizations working in Africa on the issues of energy for development.

On May 27, 2004 five UN agencies (UNECA, UNIDO, UNEP, UNDP, and UN-Habitat) gathered in the context of the Regional Consultative Mechanism (RCM) agreed to the creation of UN-Energy/Africa (UNEA) as a subsidiary of UN-Energy in order to insure a linkage between



global and regional energy issues and as the UN-Agencies sub-cluster on energy in support of NEPAD.

In November 2004, UNEA adopted its programme of work for the period 2004-2006. It has developed up to now the *UN Energy/Africa Web site and electronic forum* aims at facilitating information sharing among the members and promoting joint programming. UNEA has also promoted *Mini/Micro Hydropower Capacity Building and Investment Project in Africa* in order to increase electricity access for rural people in SSA. This estimated \$47m project (including \$18.5m approved by the GEF) involves 11 African countries in its first phase. UN-Energy/Africa participants are UNDP/GEF, ECA, UNIDO, UNEP, and AfDB.

## **2.2. Alliance for Rural Energy in Africa (AREA) initiative**

The objective of the Initiative is to pool the resources of the participants in order to develop models to meet the needs for modern energy services in rural areas of Africa, including their business, institutional, technological, financial and social aspects.

AREA activities contribute to accelerating the development of adequate delivery mechanisms for vital energy services in rural Africa and help raise awareness of private and public actors at all levels of the importance for sustainable development of providing adequate energy services through capacity building and technology transfer, building awareness, institutional strengthening, local participation and technology transfer/exchange.

AREA co-ordinates its work with the UNEP Global Network on Energy for Sustainable Development, the Global Forum on Sustainable Energy, the GVEP and the initiative on "Energy for Poverty Eradication and Sustainable Development".

## **2.3. LP Gas Rural Energy Challenge and the UNDP Energy portfolio**

The LP Gas Rural Energy Challenge is a Public Private Partnership between the World Liquefied Petroleum Gas Association (WLPGA) and the UNDP. The LPG Challenge directly targets rural and peri-urban areas with the objective of expanding access to affordable LP Gas.

The LPG Challenge addresses the adverse impacts on health, the environment and economic productivity related to dependence on traditional biomass fuels in rural areas. The partnership is building on the capacity of public and private sector organizations, including governments, industries, investors, local communities, and civil society groups to create viable and sustainable markets for LP Gas delivery and consumption in selected developing countries.

UNDP has been instrumental in facilitating national consultations to identify projects on LPG access, distribution, and safety in 6 pilot countries among them four African states (Ghana, Morocco and South Africa).

The UNDP has been proactive in advancing the Energy agenda in Africa. Between 1996 and 2005, UNDP supported over 545 energy related projects, with total financing of over \$2.5 billion. Africa is the UNDP's fastest growing energy access portfolio (4-fold increase from 1996-2000) with the energy access for the poor as the central focus.

## **2.4. UNIDO Initiative on Rural Energy for Productive Use**

Trough its Initiative on Rural Energy for Productive Use, UNIDO targets people without access to modern energy delivery systems and those living in remote off-grid areas, far from energy sources. UNIDO promotes an effective approach to reduce / remove obstacles that hinder their access to affordable and sustainable energy through access facilitation, employment creation and transfer of technology.

UNIDO ongoing projects in Africa comprise Small Hydro Powers based in Community Development Centre in Bundi Bugyo District (250 kW) and Bwindi (12 kW) in Uganda, in Rukwa Region (75 kW) in Tanzania, in Enugu-Nigeria (30 kW), in Ghana Tsatsadu Falls/Volta Region. (2 x 30 kW) and in Mozambique remote areas.

Other Micro Hydro projects (SHP) in the UNIDO Pipeline are located in Kenya, Cameroon, Mali, Sudan, Malawi, Lesotho, and Zambia. The UNIDO Africa Regional Centre for SHP was officially inaugurated during the first quarter of 2006 in Abuja, Nigeria.

## **2.5. The AREED/UNEP initiative**

The UNEP Programme on Rural Energy Enterprise Development (REED) initiative operates in Africa as AREED to develop new sustainable energy enterprises that use clean, efficient, and renewable energy technologies. These new enterprises meet the energy needs of under-served populations while reducing the environmental and health consequences of existing energy use, particularly low quality biomass fuels such as wood and dung.

AREED offers rural energy entrepreneurs in Mali, Ghana, Tanzania, Senegal and Zambia a combination of enterprise development services and start-up financing. The programme is supported by the United Nations Foundation, UN Fund for International Partnerships, the Swedish International Development Cooperation Agency (Sida), the Governments of Germany, the Netherlands, The Body Shop, and Domini Social Investments.

Since 2000, AREED has demonstrated significant results in Senegal, Ghana, Mali, Tanzania and Zambia. More than 224,000 people in 44,000 households now have access to cleaner forms of energy. More than 500 entrepreneurs have received enterprise development training to create or improve their business ventures. Nearly US\$2 million has been invested in 31 enterprises that provide needed energy services for water pumping, water heating and cooking.

The AREED partners are the UNEP's Energy Programme, UNEP Risoe Centre on Energy, E+Co: Energy Investment Service, Development Bank of Southern Africa (DBSA), Mali-Folkecenter, Center for Energy, Environment and Engineering Zambia Ltd (CEEEZ), Kumasi Institute of Technology and Environment (KITE), Enda Energy and Enda Tiers Monde

## **2.6. Other regional initiatives on energy in Africa**

Notwithstanding the importance of integrating energy in national poverty reduction strategies, there is a general sense that endeavors to up-grade the energy situation in general and to foster energy security in Africa at the regional level. This included enhancing generation capacity to power the grids where suitable hydropower projects were seen to be most promising.

Solidarity instruments, such as the African Petroleum Fund created by the AU in January 2006 to help mitigate rising oil prices; the proposed creation of Centres of Excellence for Sustainable Energy (CESE) or the regionalization of some of WEC's pertinent global activities; the creation of the pan-African information systems, such as AFREC's Africa Energy Information System; or the creation of regional agencies, such as the Regional Agency for Energy Access foreseen in the ECOWAS White Paper, could support regional energy integration. The ECOWAS White Paper on Energy Access is setting pro-poor energy targets, aiming at 4-fold increases in rural/peri-urban energy access by 2015.

Significant progress has also been recorded in the field of Bio fuel, small-scale hydraulic networks, domestic water-heater and solar driers, small windmills... in Africa.

### **3. Energy constraints and Challenges**

Despite the possibilities offered by the renewable energy technologies in terms of job creation and income generating for the poor grassroots, a number of barriers (political, institutional, organizational, and financial) are still against their massive usage (ENDA, 2007).

Weak enabling environment at central government level, energy access strategies lacking in PRSPs, limited central funding for sector, sub-optimal policy and regulatory frameworks undermine the energy development in the region. Limited management capacity at operational level, weak consumers' ability to pay and high unit costs for network construction and fuel hamper the development of a dynamic energy supply in Africa.

Making energy a clear priority in the countries' macro and sectoral policy and ramping up the capacity of planning and implementation, acting regionally to optimize resources and investment constitute great challenges for the region.

The development partners' adoption of harmonized approaches and flexibility on conditionality delivering assistance within country strategy framework rather than in fragmented project-by-project and the alignment of expanded existing domestic resource with national energy priorities are needed to achieve the energy commitments in Africa. Exploring new financing opportunities such as carbon financing (e.g. CDM opportunities) need to be widened.

Since biofuels are present in various forms in African countries. If properly harnessed to avoid conflicts over land use for "food, fuel and feed", biofuels can directly contribute to energy supply and rural electrification, and generate local employment, thereby combating poverty, increasing agricultural demand and promoting development (Kojima and Johnson, 2005).

### **4. Major constraints and challenges to SARD in Africa**

Although recent years saw a remarkable array of high-level initiatives for addressing poverty and hunger with a renewed focus on agriculture and rural areas where most hunger persists, many challenges and constraints are identified in the effort to meet the SARD commitment in Africa.

Many constraints and challenges are related to internal factors within the region and are exacerbated by the global and international key issues that hamper the progress of rural communities in the region.

#### **4. 1. SARD constraints in Africa**

- Growing population has been the main reasons for food shortages in the region. Between 1993 and 2003, the growth rate of food production (1.5%) was lower than the population growth (2.73%) leading to declining production per capita,
- Efforts to enhance the SARD in the region have been hampered by high magnitude and occurrence of natural disasters (drought, floods, earthquake...) in the context of climate global warming,
- The spread of HIV/AIDS constitutes a major burden for the SARD. FAO has estimated that in the 25 most-affected African countries, AIDS has killed seven million agricultural workers since 1985. It could kill 16 million more within the next 20 years. In absolute numbers, more people living with HIV reside in rural areas. More than two thirds of the populations of the 25 most-affected African countries live in rural areas. In Kenya's Ministry of Agriculture, 58 % of all staff deaths are caused by AIDS, and in Malawi's Ministry of Agriculture and Irrigation at least 16 % of the staff are living with the disease. AIDS has killed around 7 million agricultural workers since 1985 in the 25 hardest-hit countries in Africa. Up to 25 % of the agricultural labour force could be lost in countries of SSA by 2020 (Topouzis, 1998; du Guerny, 1999),
- Political instability and Human-induced disasters, including conflicts occurring in many countries and between countries constitute a big threat to the rural poverty reduction, food security and rural sustainable development,
- Progress in reducing poverty in Africa is further complicated by the region's highly skewed income distribution that inhibits economic growth and may also neutralize and even cancel out whatever positive impacts growth could have on poverty (Besley and Cord, 2007).
- Insufficiency of investment, funding and prioritization of SARD in PRSPs is not in harmony with the economic importance of agriculture and rural economy in Africa,
- Lack of necessary environment for private sector participation, weak sustainability of SARD programmes, projects and networks beyond donor support and the paucity of Public-Private Partnership in conducting SARD activities in Africa leave the sector in the hands of the inefficient and under-funded post adjustment States,

- The highest rates of urbanization in Africa are putting enormous pressure on freshwater and other natural resources. By 2025 more than half of the African population will be urban, and during the next quarter century the urban population will be growing almost twice as the general population, by 2020 Africa will have 11 mega-cities with 5 million or more inhabitants and almost 720 cities with population of more than 100,000.
- Lack of data and sustainable SARD information systems doesn't allow to track the progress and even sustain demand driven and decentralized rural development policies and programmes,
- The share of ODA for SARD has fallen steadily since 1988. Today, only about 8% of bilateral ODA goes to rural development. The donor fatigue, awareness of fungibility of financial aid and poor governance are often given as the reasons behind the decline in ODA and the increasing share of ODA being provided through general budgetary support, of which agriculture is often a victim. These figures appear quite insignificant when compared to needs as estimated in the CAADP (US\$ 240 billion over the 2002-2015 period-an average of US\$ 18 billion per year-to achieve the WFS Objective).
- Externally, heavily subsidized products in developed countries present a major obstacle to African agricultural export growth. Some African countries also lack the productive capacity to compete with other developing countries such as Brazil, China and India,

#### **4.2. ARD-Challenges**

- AU-NEPAD/CAADP-Sirte Declaration integration: A single action plan combining NEPAD's CAADP and the AU's Sirte Declaration is a strong indication that African leaders are committing themselves to reviving the continent's agricultural and rural development in order to foster socio-economic development and bring African countries closer to achieving the MDGs.
- Raising the agricultural and rural economy competitiveness, resources mobilization for investment in ARD and strengthening human and institutional capacity building are key for a SARD in the region,
- Promoting all stakeholders' active participation in SARD policies, programmes and projects, beyond the voluntary based consultation, towards budget control, funding research and allocation will insure sustainability and ownership in SARD activities after the donor intervention,
- Building and managing sustainable database on SARD expenditures, programmes, projects and policies will ensure effective monitoring of the rural development process.

#### **4.3. Opportunities**

- The emerging political will and renewed commitment for Agricultural and rural development in Africa, if sustainable, can lead to an increased investment in the sector.

- Globalization offers additional sets of opportunities for agricultural development in Africa. The biotechnological revolution and revolutionary developments in information and communication technologies (ICT) have drastically reduced the cost of processing and transmitting information and, therefore, facilitated access to information about agricultural technologies, market opportunities, price and demand. Provided necessary capacities are built in the Region,
- Redefining clearly the role of governments, private sector and civil society in SARD and promoting a coalition approach will ensure that the process is comprehensive, demand driven and sustainable.
- Expansion of alternatives markets of agricultural products (food, feed, fuel) and other biochemical demand for agricultural products (pharmaceutical, cosmetics...) can boost the agricultural sector in Africa if the necessary capacity is created.
- The emergence of Integrated Agricultural Research for Development (IAR4D) as a basis for conducting research has presented an opportunity to address SSA's persistent problems in new ways. IAR4D involves an innovative set of principles, an integrated research agenda, beneficiary participation, a demand driven process and a recognized need for greater organizational capacities and flexibility among research partners.

#### **4. 4. Lessons on SARD in Africa**

- Given the continued withdrawal of donor funding, People Participation in SARD funding and other sources will need to be consolidated and further developed in order to prevent a rapid erosion of SARD capacity.
- The SARD decentralization process should be embedded in a permanent institutional structure with stronger, more inclusive communities through empowerment, direct resource transfer and stronger and more accountable local governments, re-aligned central governments capacity building for development, monitoring and evaluation, and scaling up CDD through learning by doing. There is a need to strongly commit NEPAD, and top-level country leaders on this issue.
- Many serious IPM methods exist already but lack a mechanism for extension and refinement at the farm level across a larger smallholder community. The developments of extension systems can cost effectively empower thousands of smallholders in this IPM knowledge.

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