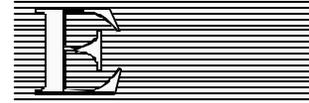




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Regional Implementation Meeting (RIM) for CSD-16

Addis Ababa, Ethiopia
22-25 October 2007

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

August 2007

List of acronyms

ACSD	Africa Committee on Sustainable Development
ADF	African Development Forum
ADRAO	Association pour le Développement de la Riziculture en Afrique de l'Ouest
AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
AMCOW	African Ministers' Council on Water
AMCEN	African Ministers Conference on Environment
ANBO	African Network of Basin Organizations
AREED	Africa-UNEP Programme on Rural Energy Enterprise Development
ARI	African Rice Initiative
ASARECA	Association for Strengthening Agricultural Research in East and Central Africa
ASP	Africa Stockpiles Programme
AU	African Union
AWF	African Water Facility
AWTF	African Water Task Force Programme
CAADP	Comprehensive Africa Agricultural Development Programme
CESE	Centres of Excellence for Sustainable Energy
CILSS	Comité Permanent Inter-Etats de Lutte contre la Sécheresse au Sahel
CGIAR	Consultative Group on International Agricultural Research
CEN-SAD	Community of Sahel-Saharan States
COFOG	“classification of functions of government” system
COMESA	Common Market for Eastern and Southern Africa
CORAF	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricole
CSD	Commission on Sustainable Development
DCDP	Decentralization and Community Development Project
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EGM	Expert Group Meeting
FARA	Forum for Agricultural Research in Africa
FARRA-FAAP	Forum for Agricultural Research in Africa-Framework for African Agriculture Productivity
FOSICH	Food Security Information Clearing House
GDP-RD	Global Donor Platform for Rural Development
GEF	Global Environment Facility
IAR4D	integrated agricultural research for development
ICT	Information and Communication Technologies
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IGAD	Inter-governmental Authority on Development
IITA	International Institute of Tropical Agriculture

ILRI	International Livestock Research Institute
INSAH	Institut du Sahel
IPM	integrated pest management
IWRM	integrated water resources management
JPOI	Johannesburg Plan of Implementation
MAPP	Multi-country Agricultural Productivity Programme for Africa
MDGs	Millennium Development Goals
NARS	National Agricultural Research Systems
NEPAD	New Partnership for Africa's Development
NERICA	New Rice for Africa
ODA	Official Development Assistance
PABRA	Pan-Africa Bean Research Alliance
PACI	Pan-African Cassava Initiative
PAN	Pesticide Action Network
PASS	Programme for Africa Seed System
PFIA21	Programme for Further Implementation of Agenda 21
POPs	persistent organic pollutants
ProGRA	Programme for a Green Revolution in Africa
PRSPs	Poverty Reduction Strategy Papers
RECs	regional economic communities
RFSP	regional programmes for food security
RIM	regional implementation meetings
ROPPA	Réseau des Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest
RPMIC	Regional Processing and Marketing Initiative on Cassava
RWSSI	Rural Water Supply and Sanitation Initiative
SADC	Southern African Development Community
SCP/UNEP	Sustainable Consumption and Production/United Nations Environment Programme
SDRA	Sustainable Development Report on Africa
SARD	Sustainable Agriculture and Rural Development
SDD	Sustainable Development Division
SIP	Strategic Investment Programme (TerrAfrica)
SLM	Sustainable Land Management
TIIP	Technology, Infrastructure, Institutions and Policies
TLF	TerrAfrica Leveraging Fund
UNCED	United Nations Conference on Environment and Development
UNEA	UN-Energy/Africa
UNEP/ROA	United Nations Environment Programme/Regional Office for Africa
WARDA	West Africa Rice Development Association
WFP	World Food Programme
WFS	World Food Summit
WSSD	World Summit on Sustainable Development

1. Introduction

1.1. Background

1. 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 (UNCED) held in Rio de Janeiro, Brazil. At the eleventh 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. Regional commissions were also invited to take a lead role in organizing regional implementation meetings (RIMs) to contribute to the work programme of the CSD.

2. The CSD 2008/2009 16/17 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 (ACSD-5). The RIM for Africa will provide inputs from the region to the CSD-16 in order to maintain the momentum generated.

3. 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 CSD16.

1.2. Purpose, objectives and commitment selectiveness

4. The RIM will undertake an evaluation of progress in implementing Agenda 21, the PFIA21 and the JPOI. 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. The report 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 JPOI, PFIA21 and Agenda 21, taking into consideration the MDGs and the World Food Summit (WFS) engagements.

5. The 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 per cent 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

6. Agriculture is the backbone of Africa's economy. About 70 per cent of Africans and roughly 80 per cent of the continent's poor live in rural areas and depend mainly on agriculture for their livelihood. The sector accounts for about 20 per cent of Africa's GDP (ECA, 2004), 60 per cent of its labour force and 20 per cent of the total merchandise exports (CAADP, 2003). Agriculture is the main source of income for 90 per cent of the rural population in Africa (ECA, 2005).

7. About 70 per cent of the African population living on less than a dollar 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 agriculture sector.

8. Agriculture represents a great part of Africa's share in world trade. On the list of 20 top agricultural and food commodity importers in 2004, 60 per cent were from sub-Saharan Africa (SSA). African countries represented also 50 per cent of the top 20 countries, in terms of the share of total agriculture/ total exported merchandise in the world.

3. Commitments selectiveness and progress tracking

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

10. It therefore seems necessary to have a way of screening the commitments and declarations and selecting from among them those on 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 sustainable agriculture and rural development (SARD) (NEPAD/Abuja, 2006).

3.1 Sustainable land management: CAADP Pillar 1 progress

3.1.1 Commitments and progress

11. Agenda 21 recognizes the inappropriate and uncontrolled land uses as a major cause of degradation and depletion of land resources while the CAADP-NEPAD first pillar envisages extending the area under sustainable land management (SLM) and reliable water control systems.

12. Over the past 30 years, irrigation in Africa has increased at a rate of 1.2 per cent per year. However, this rate began to fall in the mid-1980s and is now below 1 per cent 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 per cent. Less than 10 per cent of Africa's potential irrigable land is irrigated (compared to 26 per cent for India and 44 per cent for China). The annual growth rate of the irrigated land would need to increase ten-fold to around 7 per cent in order to meet the CAADP ambitions.

13. 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 average of 100 kg/ha. The Food and Agriculture Organization of the United Nations (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 per cent, owing to a combination of high prices and low disposable farmer income.

3.1.2. SLM achievements and challenges

14. 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.

15. At the same time, institutional resources for the implementation of reforms are often stretched. Maintaining the political momentum necessary to introduce reforms is an important 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 the African Development Bank (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).

16. Efforts are now being made to include irrigation within the Africa Infrastructure Consortium, 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.

17. The TerrAfrica initiative has started to integrate environmental concerns into the CAADP first pillar. Through its Strategic Investment Programme (SIP), TerrAfrica is securing about 50 per cent of the support of the Global Environment Facility (GEF) for sustainable natural resource management in Africa through the SLM scaling-up programmes. The TerrAfrica Leveraging Fund (TLF) has been created at the World Bank and the first contributions received by the end of

June 2006. TerrAfrica partners are active in Burkina Faso, Ethiopia, Ghana, Namibia and Uganda, in supporting country-programming approaches for SLM. Meanwhile, country dialogue on SLM has been initiated in Eritrea, the Gambia, Malawi, Mali, Nigeria and Senegal.

18. 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 in order to build synergies.

19. In the same vein, African leaders 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\$ 10 million). This initiative importantly provides new political momentum, but will need to be accompanied by the development of an effective monitoring mechanism and the issues need to be seen alongside wider agricultural policy reform.

3.2. Poverty and hunger alleviation commitment

20. The MDGs target of halving the proportion of those suffering from extreme poverty and hunger by 2015 has been reinforced by the WFS commitment to reduce by 50 per cent the number of malnourished persons, by 2015. Chapter 14 of A21 confirmed this engagement establishing increased food production and enhanced food security as the major objective of SARD.

3.2.1. Progress accomplished so far

1. Poverty dynamic in Africa

21. 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, the situation deteriorated further and millions more fell into deep poverty while the proportion of people living on less than 1 dollar a day rose from 44.6 per cent in 1990 to 46.4 per cent in 2001. (UN-MDGs, 2005).

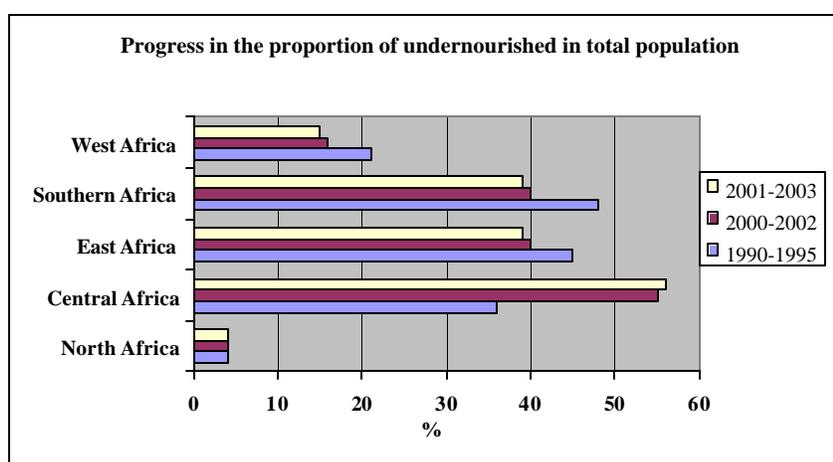
22. The poor are also getting poorer in Africa; the average income of people living on less than 1 dollar a day had fallen from \$US 0.62 in the 1990s to 0.60 in 2001 while it has been rising from \$US 0.80 to 0.82 in all the other developing countries over the same period. The majority of the poor in the region - about 70 per cent - live in rural areas. For the rural communities, agriculture remains the main source of employment and income and represents the engine of the rural economy.

2. Progress on food security and hunger

23. Over the period 1992 – 2002, there was a small reduction in the overall percentage of the malnourished population in Africa, from 29 per cent to 27 per cent masking an increase in the

absolute number, from 176 million to 210 million, a rise of 19 per cent. 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.

24. The AU Commission's Food Security Report (2005) established that Africa's annual growth rate in food production was, at 1.5 per cent lower than the population growth rate (2.73 per cent) (NEPAD/Abuja, 2006). Between 1990-1992 and 2001-2003, the number of undernourished people increased from 169 million to 206 million. Only 15 to 39 countries, for which data are reported, reduced the number of undernourished (WFS, 2006). The proportion of undernourished people in different subregions in Africa has presented an average of 30.8 per cent, 31 per cent and 30.6 per cent respectively in 1990-1995, 2000-2002 and 2001-2003 (FAO, 2004).



Source: FAO database

25. 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 per cent) from 38 million to 32 million, between 1993-95 and 2001-03, with the prevalence falling from 61 to 46 per cent, in relative terms. Ghana's number of undernourished people was reduced from 5.8 to 2.4 million (59 per cent) and the prevalence of undernourished from 37 to 12 per cent. In Mozambique, the number of undernourished people declined by 900,000 (or by 10 per cent) and the prevalence of undernourishment from 66 to 45 per cent.

3.2.2. Poverty and food security achievements and initiatives

26. The Global Donor Platform for Rural Development (GDP-RD), concentrating about 80 per cent of total overseas development assistance (ODA) in the field of rural development, is collaborating with NEPAD in supporting the CAADP and provides joint support to the harmonization of donors' procedures and practices in rural development. It accompanies pilot donor harmonization and alignment efforts in rural development in Burkina Faso and Tanzania.

27. The AU has published a report on the Status of Food Security and Prospects for Agricultural Development in Africa in collaboration with the International Fund for Agricultural Development (IFAD), FAO and the World Food Programme (WFP) in July 2005 as part of the renewed political commitment to achieving food security.

28. The AU Commission has also completed the process of revisiting the African Regional Nutritional Strategy (1993-2003), incorporating emerging concerns (such as HIV-AIDS, diet-related chronic diseases, resurgence of TB and malaria...), and re-emphasizing nutrition as a basic input in poverty alleviation strategies and towards achieving the MDGs.

29. FAO is promoting regional food security programmes and works directly with Regional Economic Organizations (REOs) to promote structural reforms and policy harmonization in order to support national actions for food security and water management.

3.2.3. Lessons learnt and challenges

30. 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 and food production, as well as equitable income distribution.

31. 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 (IFPRI-Welt Hunger Hilfe, 2006).

3.3. Agricultural productivity, growth and sectoral performance

3.3.1. Commitment and progress

32. One of the major commitments adopted by the CAADP framework is the call for 6 per cent 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).

33. Agricultural productivity levels in Africa, in terms of both land and labour productivity, still lag far behind other developing regions. Total factor productivity grew at an annual rate of 1.3 per cent on average during the 1990s, accounting for approximately 40 per cent of the 3.1 per cent annual growth in agricultural output. Growth in the traditional inputs of land, labour, and livestock accounted for the other 60 per cent of agricultural output growth.

34. The average annual growth in cereal yield in 1980-2000 has been low in SSA (0.7 per cent) compared to Asia (2.3 per cent), Latin America (1.9 per cent) and the Middle East and North Africa (1.2) (FARA-AU-NEPAD, 2006). The SSA average annual growth rate in crop and livestock production has fallen from 3.6 per cent in 1985-1994 to 2.4 per cent in 1995-2005.

3.3.2. Achievements and lessons

35. 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.

36. IFAD is supporting NEPAD's Pan African Cassava Initiative (PACI) in conjunction with the International Institute of Tropical Agriculture (IITA), based in Ibadan, Nigeria. Following IFAD-supported initiatives in the country, Nigeria is the world's top producer of cassava. The fund has currently 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. It has developed the Regional Processing and Marketing Initiative on Cassava (RPMIC) for SSA aimed at linking IFAD-funded root and tuber projects to regional market through the development of commodity chains.

37. IFAD, FARA and NEPAD are supporting the West Africa Rice Development Association (WARDA) in order to boost rice production and in particular the New Rice for Africa (NERICA) project, combining the high-yield characteristics of Asian rice with the resistance of indigenous African strains. Through its grants, IFAD has established close links with WARDA's African Rice Initiative (ARI), launched in 2002 to promote the dissemination of NERICA.

38. About 30,000 farmers in 20 countries in SSA, many of them women who spend numerous hours planting, weeding and harvesting rice, are using NERICA varieties – which have higher yields -- thus reducing drudgery and increasing incomes; they are also higher in protein, thus improving family nutrition. The challenge now 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 the distribution system.

39. PABRA, a consortium of African-owned regional bean networks founded in 1996, consisting of National Agricultural Research Systems (NARS) in a total of 18 countries¹ in SSA, the International Centre for Tropical Agriculture (CIAT), ECABREN, SABRN and a number of donors, had released, as of 2004, 245 new bean varieties across all 18 countries, some with completely new attributes including resistance to previously intractable problems of African agriculture (such as the bean stem maggot and soils low in phosphorus). In 2004 alone, PABRA

¹ PABRA is active in Angola, Burundi, Cameroon, DR Congo, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Rwanda, South Africa, the Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

partners produced seed of over 120 improved bean varieties which reached 1.25 million households across 10 countries.

40. The Alliance for a Green Revolution in Africa (AGRA), a joint initiative of the Rockefeller Foundation and the 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. Through its Program for a Green Revolution in Africa (ProGRA), 200 new improved crop varieties are expected to be developed and commercialized within the next five years. The AGRA “Seed Production for Africa Initiative” will provide credit for 10,000 agro-dealers in the region.

41. Over its 20-year history, the Sasakawa-Global 2000 Partnership (SG2000) has sponsored country technology transfer projects in 15 African countries. The partnership activities have impacted impressively on maize yields in Ghana and wheat yields in the Sudan associated with a rapidly increasing number of on-farm demonstrations of improved technologies. Activities were initiated in Benin, Burkina Faso, Ethiopia, Guinea, Malawi, Mali, Mozambique, Nigeria, Tanzania, Togo and Uganda in 1988, 1989 and 1990.

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

42. In addition to technology, there is a need to promote an adequate access to rural infrastructure as well as to the non-farm economy and rural towns. Distortions in prices also need to be removed in order to provide incentives for farmers to invest and produce. Agricultural research and extension and investments in provision of health and education services should be significantly expanded and promoted in order to increase agricultural productivity. Creating improved trade opportunities for the developing countries 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: engagement and challenges

3.4.1.1. Commitment and progress tracking

43. 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 per cent 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.

44. 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 per cent of the national budget to the agriculture sector. Preliminary survey results (from 19 countries) indicate that 63 per cent of the countries allocate less than 5 per cent, 21 per cent allocate 5 per cent to 10 per cent; and 16 per cent allocate greater than 10 per cent (NEPAD/Abuja, 2006). At the current stage the average share of the agricultural sector in African countries' budgets is comprised between 2 to 5 per cent. In the 10 countries for which a detailed review was conducted, the share of agriculture in government budgets declined from around 5 per cent in 1990/91 to 3.5 per cent in 2001/02 - far below the target of 10 per cent set in the commitment.

3.4.1.2. Challenges and constraints

45. 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. It is still imperative to build national and regional capacity to track expenditure and to develop and implement an electronic data capturing ad-hoc system (NEPAD/Abuja, 2006).

46. 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).

47. 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 per cent budget allocation using an internationally accepted system that allows for comparison across countries. The Classification of Functions of Government (COFOG) 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 per cent. The submission, by December 31 of each year, of duly completed Agriculture Expenditure Tracking System questionnaire to the AUC by each country is identified as a means to track progress. Monitoring other agricultural funding sources (such as private sector, ODA, donors, etc.) should be a component of a comprehensive agricultural-research spending tracking system for a broader picture of the phenomenon.

3.4.2. Agricultural research spending: commitment, progress and challenges

3.4.2.1. Targets and progress

48. 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 agricultural research in sustainable agriculture and rural development. This commitment is in line with the CAADP engagement to double the current annual spending on agriculture research in Africa within 10 years (CAADP, 2003).

49. The annual growth rate in public agricultural research spending in Africa declined from 2 per cent in the 1970s to 1.3 per cent in the 1980s and to only 0.8 per cent in the 1990s. Excluding Nigeria and South Africa, total public agricultural R&D spending in Africa actually declined by 0.3 per cent per year in the 1990s. In 2000, Africa invested US\$ 0.70 in agricultural research, for every US\$ 100 of agricultural output, lower than the US\$ 0.84 in 1981. At the country level, ratios ranged from 0.20 per cent or lower in the Gambia, Niger and Sudan, to over 3 per cent in Botswana, Mauritius and South Africa (IAC, 2004, Pardey *et al*, 1997). At the same time, the 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). The USAID funding decreased from 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

50. In response to NEPAD's wishes, FARA has developed the Framework for African Agricultural Productivity (FAAP) aimed at achieving strengthened agricultural knowledge systems delivering profitable and sustainable technologies that are widely adopted by farmers. At the Banjul summit, in June 2006, African leaders adopted the FAAP, and its initial funding of US\$ 13 million has been mobilized, but more support is needed to reach the US\$ 50 million goal by 2010.

51. FARA has launched the Multi-country Agricultural Productivity Programme for Africa (MAPP), the purpose of which is to identify, focus and make available resources required to implement NEPAD CAADP's fourth pillar. 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 Southern African Development Community (SADC) members (Botswana, Mozambique, South Africa and Zambia).

52. 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 aimed at optimizing the performance of agricultural research through increased collaboration between the various actors involved (Beintema and Stads, 2004). 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.

3.4.2.3. Agricultural-research constraints

53. 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

countries poverty-reduction strategies (PRSPs) (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 NARs to have a greater access to competitive funds.

3.5. Integrated Water Resources Management (IWRM)

3.5.1. Major commitment on water management

54. Africa is facing key challenges in terms of meeting basic water and sanitation needs, securing food and energy supply, applying IWRM principles and practices, managing risks, and ensuring the knowledge transformation. While a lot of effort has gone towards meeting these targets relating to water, the outputs fall much below expectations.

3.5.2. Progress and achievements in water management in the region

55. The AfDB is sponsoring a study on “Investment in Agricultural Water Management in SSA” in collaboration with the NEPAD, FAO, IFAD, IMWI, the World Bank and AfDB to look at opportunities for private sector participation in agricultural water development in SSA. Over the past 30 years the AfDB commitments to the sector have exceeded US\$ 5 billion with over 60 per cent of that amount going to water and sanitation projects. In September 2001, the AfDB established the African Water Task Force which launched, in April 2002, the African Water Facility (AWF). The Facility focuses on resource mobilization, capacity-building and policy, legal and institutional reform in the sector.

56. In April 2002 in Abuja, Ministers responsible for water in 41 African countries decided to form the African Ministers’ Council on Water (AMCOW) to promote cooperation, security, social and economic development and poverty eradication through the management of water resources and provision of water supply services.

57. The African Network of Basin Organizations (ANBO) was created in 2002 to enable the mobilization for effective implementation of IWRM at the level of river, lake and aquifers basins. ANBO is promoting the African Water-related Information System and the development of performance indicators for management of African basins projects.

58. The NEPAD Water and Sanitation Programme is promoting a strategy comprising a Medium to Long-term Strategic Framework (MLTSF) and a Short Term Action Plan (STAP). The implementation of STAP 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 MLTSF focuses on three 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.

59. The AfDB together with AMCOW has developed the Rural Water Supply and Sanitation Initiative (RWSSI) in 2004. The overall goal of the RWSSI is poverty reduction through the provision of safe water and basic sanitation to 80 per cent of the rural populations in Africa by 2015, with eventual 100 per cent coverage by 2025. The total investment required for achieving 80 per cent coverage by 2015 is estimated to be about US\$14.2 billion. The AfDB established the RWSSI Trust Fund in January 2006 and hosted the First Rural Water Supply and Sanitation Initiative Multi-donor Trust Fund (RWSSI Trust Fund) Steering Committee in January 2007 to discuss and validate the indicative budget and strategy 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.

3.5.3. Constraints on water management in Africa

60. 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 constrains the planning and monitoring of development activities at national, subregional and continental levels in Africa is the paucity of data on water resources.

61. 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 SARD policy and legal frameworks development and mainstreaming

3.6.1. Commitment, progress and initiatives

62. 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 later than 1998 (UNCED, 1992).

63. 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, namely: (i) expansion of the 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.

3.6.2. The CAADP endorsement process and the AfDB portfolio

64. The endorsement of the CAADP process has been undertaken through sequential steps, including the conceptualization processes 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.

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

66. 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 begun to implement some of the CAADP priority activities, such as the SADC-AfDB irrigation project (US\$ 150 million) and the SADC-FARA-World Bank Project (US\$ 60 million) under FAAP.

67. 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 sometimes results in a mix of programmes and initiatives heavily influenced by donor resources and policies. 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.

68. In line with its Agriculture and Rural Development Sector Policy (2000), the AfDB assists African countries to develop comprehensive plans for SARD at the regional and country-level. 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 = US\$ 1.48 during 2004), representing 15.5 per cent of total bank Group lending for the year.

3.6.3. Challenges in implementing the CAADP

69. 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. However, some development partners are still creating parallel processes and pledging arrangements and holding back the pace of progress (APF, 2006). There is a need to avoid setting up new processes and build on ongoing efforts at

national level, aligning national efforts with the CAADP (AU/NEPAD Partnership Platform Meeting, 28-29 September 2006). African governments need to focus on raising the necessary resources from internal revenue (AU, 2006) and creating a conducive environment for private-sector involvement.

3.7. Rural participation, decentralization and capacity strengthening

3.7.1. The commitment and progress

70. The A21 and its translation into concrete actions through the JPOI call for people participation and a greater community control over the resources on which it relies as well as advocating for decentralization policies and rural organizations' strengthening toward SARD (UNCED, 1992).

71. In response, African countries (including Eritrea, Madagascar, Zambia and Zimbabwe among others) have increasingly adopted the integration of local government (LG) in public expenditure systems and remarkable involvement of local-government authorities (LGAs). There is an increasing success with direct resource transfers to communities and LG (de Regt, 2003).

72. Many countries are ready with full integration of community-driven development (CDD) while others are making progress in this effort. Decentralization initiatives are conducted in most countries (including Burkina Faso, Ethiopia, Malawi, Mali and Uganda) within the current context of increased democratization supported by the donors' actions. Many capacity building projects, partnerships and regional learning programmes are conducted at the community level but there is a clear need for coordination among actors involved.

3.7.2. Rural participation, decentralization and empowerment: achievements

73. 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. It 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. IFAD also took part in the CAADP Retreat in Pretoria, South Africa, in October 2005 in order to cement grassroots participation in the CAADP.

74. 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 in the face of the declining ability of African governments to manage and finance rural development.

The Rwanda Decentralization and Community Development Project (DCDP); the Northern Uganda Social Action Fund (NUSAF); the Sudan Community Development Fund Project (CDF); the Participatory District Planning in Mozambique; the revision of Uganda's Co-operative Legislation; the promotion of new cooperatives and farmer groups in Namibia; the support for farmers' organizations in Cameroon; and privatization of agricultural cooperatives in Burundi (1993), are concrete reforms initiatives in this way.

75. To support these efforts, IFAD had launched the development of a more systematic approach to CDD as an effective vehicle to reducing rural poverty through empowerment, access to services and better incomes for the rural poor in Africa.

3.8. Integrated pest management (IPM): commitment, progress and challenges

76. 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

77. IPM in Africa has had a limited impact in raising agricultural productivity in most sectors. Poor access to IPM knowledge and poor interactive networking have 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 is disappointingly slow.

78. 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.

79. 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.

3.8.2. Achievements related to persistent organic pollutants (POPs) and IPM

80. The FAO has compiled an inventory of obsolete stockpiles for 45 countries in Africa and the Near East and for 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.

81. The Consultative Group on International Agricultural Research (CGIAR) NGO Committee and the IITA have identified constraints to, and opportunities for, IPM in Africa and developed an ad-hoc action plan. The key issues identified as IPM constraints 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 (CGIAR/NGO-IPM network-Africa, 1999).

82. The GIPMF, an integrated production and pest management network, was established in 1997 to help governments, communities and sponsors accelerate the implementation of IPM by facilitating links between IPM implementers and necessary technical, policy and training expertise. In cooperation with several West African countries, the facility has developed a project for the GEF International Waters Programme focusing on prevention of build up and exposure to persistent toxic substances. The project will initially focus on the Senegal River valley in Senegal. The second phase will prepare a full-scale 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 in Benin, Burkina Faso, Egypt, Ghana, Kenya, Senegal, Tanzania, Zambia and Zimbabwe.

83. The Forestry Institutions in Central, Eastern and Southern Africa came together in the mid-1990s and established a regional tree pest management network (in 1997). In the same way, 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 using ICTs.

84. 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, the World Wildlife Fund (WWF), the Pesticide Action Network (PAN) and Crop Life International has established the Africa Stockpile Programme (ASP). The GEF has funded the ASP for US\$25 million, additional to co-financing from donor governments. Over US\$50 million has been raised for the first phase of activities in 15 countries. Close to another US\$20 million, however, is still required for phase 1 work and phase 2 planning.

85. Countries participating in the first phase of clean up and prevention activities are Ethiopia, Mali, Morocco, South Africa, Tanzania and Tunisia. Inventory estimates indicate that there are about 10,000 tons of obsolete pesticides at more than 1400 sites in these countries (Curtis and Olsen, 2004).

3.8.3. Challenges in POPs management

86. Persistent organic pollutants (POPs) are chemicals that persist for several years in the environment and hence constitute a serious risk of causing long-term damage to human health and the environment.

87. 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)).

88. Consequently, FAO states that as of 1999 only 5 per cent 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 and challenges in Africa

3.9.1. Commitment and progress

89. The A21 calls for specific effort in the energy field to enhance productivity and to 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 per cent in rural areas. Traditional biomass use is widespread. 80 per cent of SSA depends on fuelwood and charcoal for cooking and water heating. Over 95 per cent of households in the poorest countries in SSA cook with biomass on open fires or primitive stoves.

3.9.2. Achievements and initiatives

90. In 2004, five United Nations agencies (UNECA, UNIDO, UNEP, UNDP, and UN-Habitat) created the 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.

91. UNEA has developed up to now the UN Energy/Africa Web site and electronic forum and promoted Mini/Micro Hydropower Capacity Building and Investment Project in order to increase electricity access for rural people in SSA. This estimated US\$ 47 million project (including US\$18.5 million approved by the GEF) involves 11 African countries in its first phase. UN-Energy/Africa participants are UNDP/GEF, ECA, UNIDO, UNEP, and AfDB.

92. Between 1996 and 2005, UNDP supported over 545 energy-related projects, with total financing of over US\$ 2.5 billion. The programme has been instrumental in facilitating national consultations to identify projects on liquefied petroleum gas (LPG) access, distribution, and safety in Ghana, Morocco and South Africa.

93. The UNIDO ‘Initiative on Rural Energy for Productive Use’ promotes an effective approach to reduce / remove obstacles that hinder the access to affordable and sustainable energy in Africa. UNIDO ongoing projects comprise Small Hydro Powers based in Community Development Centre in Bundibugyo 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 remote areas in Mozambique. Other Micro Hydro projects (SHP) in the UNIDO Pipeline are located in Cameroon, Kenya, Mali, Lesotho, Malawi, Mali, the Sudan and Zambia. The UNIDO Africa Regional Centre for SHP was officially inaugurated during the first quarter of 2006 in Abuja, Nigeria.

94. The Africa-UNEP Programme on Rural Energy Enterprise Development (AREED) develops sustainable energy enterprises that use clean, efficient, and renewable energy technologies. Since 2000, AREED has been active in Ghana, Mali, Senegal, Tanzania and Zambia. More than 224,000 people in 44,000 households have had access to cleaner forms of energy. More than 500 entrepreneurs have received enterprise development training and nearly US\$2 million has been invested in 31 enterprises that provide needed energy services for water pumping, water heating and cooking.

95. Many African solidarity instruments, such as the African Petroleum Fund created by the AU in January 2006 to help mitigate rising oil prices; the centres of excellence for sustainable energy (CESE) or the pan-African information systems, such as AFREC’s Africa Energy Information System; or the Regional Agency for Energy Access envisaged in the ECOWAS White Paper, are proactive initiatives to sustain Africa’s energy agenda.

3.9.3 . Energy constraints and Challenges

96. Despite the possibilities offered by the renewable energy technologies, a number of barriers (political, institutional, organizational, and financial) are still against their massive usage in the region (ENDA, 2007). A weak enabling environment at central government level; energy access strategies lacking in PRSPs; limited central funding for the sector; and sub-optimal policy and regulatory frameworks, all undermine the energy development in the region. Limited management capacity at the 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.

97. Achieving the energy commitments in Africa will call for adoption of harmonized approaches, flexibility on conditionalities, delivering assistance within country strategy frameworks on the part of development partners -- rather than project-by-project fragmentation. Exploring new financing opportunities such as carbon financing (e.g. CDM opportunities) needs to be widened.

98. If properly harnessed, and to avoid conflicts over land use for “food, fuel and feed”, biofuels can directly contribute to the energy supply in rural areas, thereby combating rural poverty in the region (Kojima and Johnson, 2005).

4. Major constraints and challenges to SARD in Africa

99. Although, recent years have witnessed 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.

4.1. SARD constraints in Africa

- A growing population has been the main reason for food shortages in the region. Between 1993 and 2003, the growth rate of food production (1.5 per cent) was lower than the population growth (2.73 per cent) 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 global climate change,
- The spread of HIV/AIDS constitutes a major burden for the SARD in Africa. FAO estimates 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. More people living with HIV reside in rural areas,
- 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 in the region,
- 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 the rural economy in Africa,
- Lack of necessary environment for private sector participation, and weak sustainability of SARD programmes, projects and networks beyond donor support as well as 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,
- High rates of urbanization in Africa are putting enormous pressure on freshwater and other natural resources. During the next quarter-century, the

urban population will be growing at almost twice the rate of 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 does not allow for tracking progress or even for sustaining demand- driven and decentralized rural- development policies and programmes,
- The share of ODA going into SARD has fallen steadily since 1988. Today, only about 8 per cent 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,
- Externally, heavily subsidized products in developed countries present a major obstacle to African agricultural exports. African countries also lack the productive capacity to compete with other developing countries such as Brazil, China and India.

4.2. ARD-Challenges in the Region

- 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 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, research funding and allocation will ensure sustainability and ownership in SARD activities,
- 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 SARD in Africa, if sustainable, can lead to an increased investment in the sector,

- The biotechnological revolution and impressive developments in information and communication technologies (ICTs) can drastically reduce the cost of processing and transmitting information, therefore facilitate access to information about agricultural technologies, market opportunities, if necessary capacities are built in the region,
- The clear redefinition of the governments, private sector and civil society roles in SARD and the coalition approach adoption will ensure that the process is comprehensive, holistic, demand driven and sustainable,
- Expansion of alternative markets for 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, presents an opportunity to address SSA`s persistent problems in new ways,
- 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.

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