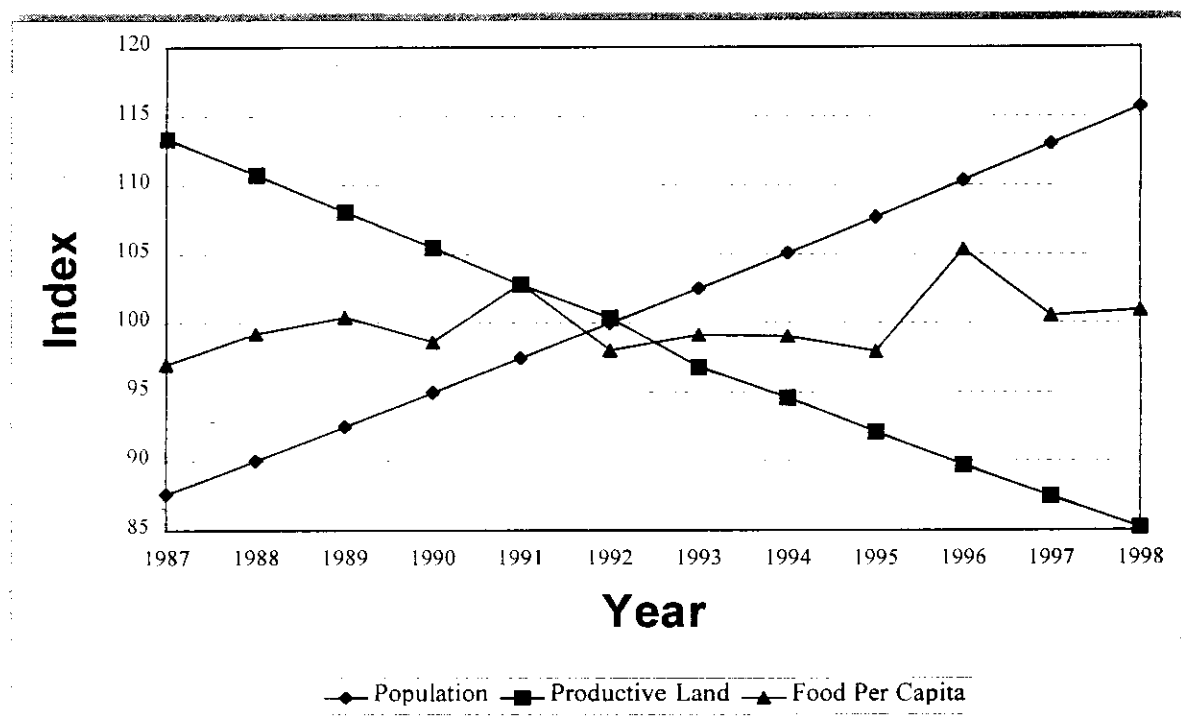


Economic Commission for Africa

1999 Annual Brochure of the Food Security and Sustainable Development Division

- Addressing Africa's Urgent Nexus: Food, Population and Environment
- Building Africa's Capacity for Science and Technology

Africa: Current Trends in Population, Food per Capita and Productive Land



Notes: 1. Population, Food per Capita and Available Land are indices with 1991-93=100.
2. Available land combines per capita arable land, permanent crops, permanent pastures and forest land

The Challenge

This year, the World population reached the 6 billion mark and it is estimated that Africa's population was nearly 800 millions representing around 13 percent of the world population. Africa continues to have the highest population growth rate in the world. If this situation continues unabated it is estimated that early in the coming century Africa will have passed the billion mark thus representing around 15 percent of the world population compared to only 7 percent a century ago. However, the problem for Africa is not much the absolute number of the population but rather the rational population management through redistribution and diversification of human capacities.

More than 50 percent of this population is still dependent on agriculture while the share of this sector has declined steadily in this decade compared to other sectors (industries, services, etc). This is despite the fact that in the past few years the African agricultural sector has performed relatively well to the point of becoming the most determining factor of the good performance of most African economies. The agriculture sector has been growing at an average rate of 3.5 percent a year mainly as a result of improved climatic conditions. However, this rate of growth is still considered very low relative to potential and past performance.

Africa has an enormous wealth of natural resources, which have remained largely unexploited to their fullest potential. However, largely as a consequence of unplanned exploitation of these resources, the African region is also confronted with major environmental problems among which are land degradation and food insecurity, deforestation, biological diversity loss, water scarcity and pollution and atmospheric pollution. Large areas of the region have been cleared up for settlements, agriculture and mining thus negatively impacting the environment.

FSSDD's Mission

In view of the above, the Food Security and Sustainable Development Division (FSSDD) of the Economic Commission for Africa (ECA) is working in concert with the other Divisions towards poverty reduction in ECA member States. To this end, the mission of FSSDD is to ensure food security and promote sustainable development in member countries of the ECA by (i) planning and implementing a critical programme to raise policy-makers' awareness of the urgency of food, population and environmental concerns (the nexus issues) in development planning, (ii) offering member States feasible solutions drawn from best practices within Africa and around the world; (iii) encouraging ECA member States to develop and take full advantage of their abilities to foster and utilise science and technology for development; (iv) providing policy analysis support and dissemination services through workshops, training seminars, networks or information exchange, and (v) providing technical advisory services to enhance understanding and management of the complex interactions among agricultural productivity, population, environment and food security.

Target Population

To attain its mission objectives, FSSDD has delivered during the 1998-1999 biennium and will continue to deliver an array of services for the benefit of ECA member States. The target population in the various countries are regional, national, and district level policy makers and planners, as well as researchers, other decision-makers, technical experts, NGOs, IGOs and leaders in the private sector (industrialists) in the fields of population, agriculture, environment and science and technology.

The PEDAs Simulation Model: Linking Population, Food Security and the Environment

what chart?

In our two previous issues we introduced the Population (P), Environment (E), Development (D) and Agriculture (A) or PEDAs simulation model. This computer simulation model, which was created for the Food Security and Sustainable Development Division (FSSDD) by IIASA demonstrates vividly the interaction between population, environment, development, and agriculture. As shown in the schematic chart, the model assumes, as is usually the case in Africa, that a vicious circle of poverty (VCP) exists because the food insecure, uneducated, rural population due to high population growth, needs to utilise more and more marginal lands for which more labour is needed, thus resulting in low agricultural productivity and high fertility rates so as to increase labour. In the process, the number of the food-insecure further increases in this vicious circle of poverty.

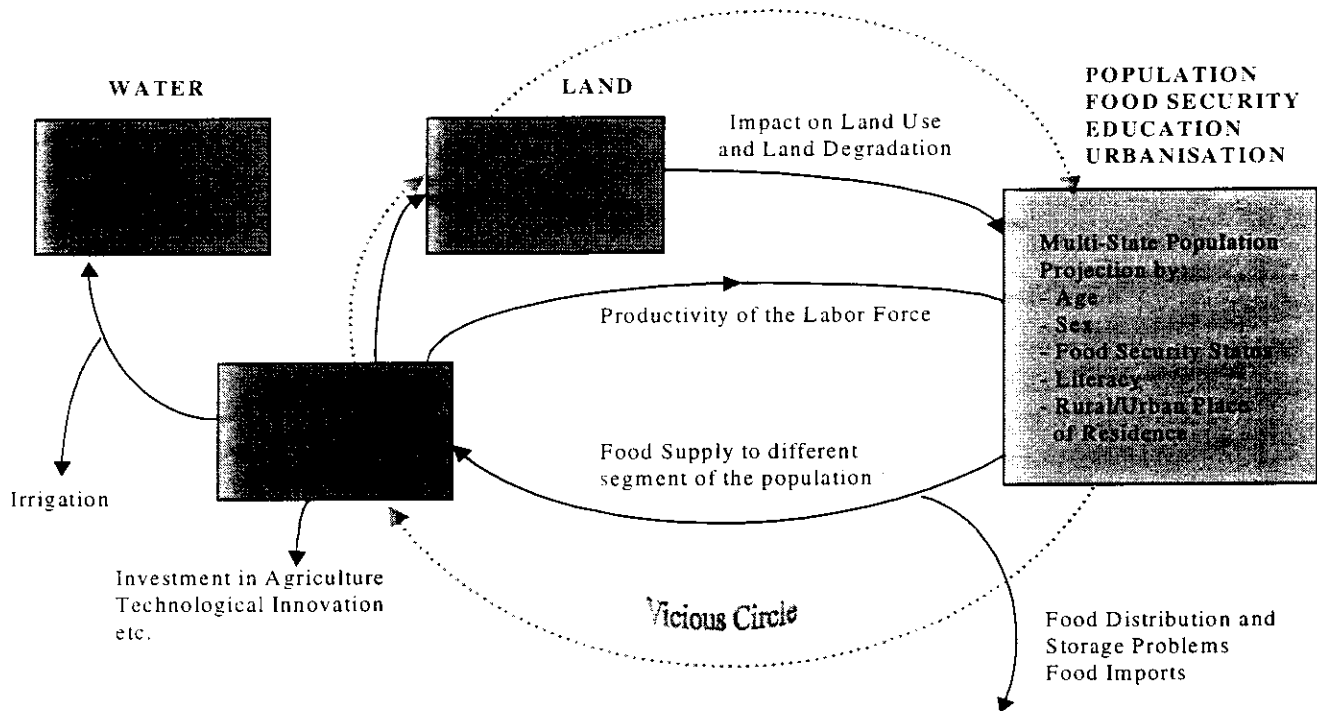
Four possible options are proposed as ways of breaking out of the VCP. The first option is to build needed infrastructure - roads, storage structures, markets, communication facilities - to improve the food distribution chain and alter the food chain equation. The second involves agricultural intensification through the application of inputs such as fertilisers, pesticides, implements and irrigation facilities in order to enhance agricultural productivity. The third comprises massive concerted efforts to increase the proportion of literate to increase quality of labour force and to influence food distribution. The fourth is to formulate and implement effective population policies as integral parts of overall national development planning to harmonise population and economic growth rates. It is important to note that these options are not mutually exclusive and are more likely to be implemented in combination with each other in order to achieve a success.

Through the manipulation of data inputs, the model can demonstrate the impact of different policy options in relation to the goal of ensuring food security in specific countries. Specifically, the model can shed light on key policy questions such as what would be the impact on food security if the rate of land degradation continued to increase at the present rate while all other factors were kept constant at present levels? How would an increase in fertilizer and machinery use of 2 percent affect the food security situation if the educational enrollment rates were increased at the same time by 70 percent? What would be the impact on the overall food security status if food production were increased by 10 percent and post harvest food losses decreased by 20 percent? What will be the impact on the food security situation if total fertility rate is to be reduced to half its present level by 2030?

Presentations

In recent months the PEDAs model has been introduced in three African Institutions and the Université Catholique de Louvain, Belgium. It has also been demonstrated in several countries. Requests from member States to make the PEDAs tools available for application have also been encouraging.

PEDA



... Vicious Circle:

High population growth of the rural food insecure population will contribute to degrade the marginal lands. This decreases agricultural production which in turn still increases the number of food insecure persons.

PEDA was presented at the International Conference on Population, Environment, and Development in Africa held in Lisbon, Portugal from 24 to 26 November 1999. The Conference was organised by the Institute Superior of Social and Political Science of the University Technique of Lisbon. The proceedings of the Conference which will be compiled in a book form will be prepared in three languages: English, French and Portuguese.

Training

From 9 to 18 June, the PEDA model together with a draft of the PEDA model Users' Manual were formally introduced and distributed on a CD-ROM to a group of experts from around Africa who has participated in a two-week training workshop. These experts will act as trainers in the dissemination process of the PEDA model. These African experts were:

Mr. Zein-El-Abedeem El-Wafa'I,
Cairo Demographic Centre (CDC)
Egypt

Mr. El Mouaatamid Brahim
Centre d'Etudes et de Recherches
Démographiques (CERED), Maroc

Mr. Hamdou Rabby Wane
CERPOD
Mali

Dr. Aka Kouame
IFORD
Cameroon

Dr. Lamleenn Bongsuiru Samson
IFORD
Cameroon

Ms. Elizabeth P. Mukamaambo
University of Botswana
Botswana

Dr. Hadgu Bariagaber
University of Botswana
Botswana

Ms. Ntsoaki Mapetla
Ministry of Development Planning
Lesotho

Mr. Sisay Worku
Ministry of Economic Development
and Cooperation, Ethiopia

Mr. T. Makatjane
National University of Lesotho
Lesotho

Mr. Jason O. Onsembe
UNFPA/CST
Ethiopia

Mr. André Mayouya
UNFPA/CST
Senegal

Mr. Jacob Tayo
UNFPA/CST
Zimbabwe

Dr. Tesfay Teklu
UN Regional Institute for
Population Studies, Ghana

Mr. Stephen O. Kwankye
UN Regional Institute for
Population Studies, Ghana

Mr. Ela Ela Amos
Central Africa SRDC
Cameroon

Mr. Kampion A. Banda
Eastern Africa SRDC
Rwanda

Mr. Zifa William Kazeze
Southern Africa SRDC
Zambia

Mr. Toma J. Makannah
Western Africa, SRDC
Niger

These experts were joined by the staff of the Food Security and Sustainable Development Division. The consultants who worked on PEDDA, Dr. Wolfgang Lutz from the International Institute of Applied Systems Analysis in Austria and Dr. Sergei Scherbov from the University of Groningen in the Netherlands directed the workshop.

The main objectives of the workshop were realized. The participants (i) gained understanding of the theoretical assumptions underlying the model, (ii) had extensive exercises in carrying out simulations to demonstrate alternative policy scenarios as they affect food security, and (iii) got an insight into the data requirements and how to add improved data to the model. However, the participants at the training workshop together with the resource persons recognized that the model needed some fine-tuning. Suggestions on how the model can be further improved were provided.

Workshop
report

The Way forward

- (i) Initialization of more countries; and
- (ii) Further training of FSSDD staff.

Two staff members of the Food Security and Sustainable Development Division will go for a month long (February 14 – March 10, 2000) in-depth training on the PEDDA model. By the end of the training, the two participants should have better understanding of the model so as to initialize new countries and disseminate the model in the African region as needed.

By the end of 1999, the PEDDA would have been initialized for Burkina Faso, Cameroon, Madagascar, Mali, Uganda, and Zambia resulting in at least a demonstration country in four SRDCs. Depending on extra-budgetary resources and request from member States, in the future, the model will be initialized for several other African countries in which food security is a serious issue.

FSSDD's Team Working with Key Partners and Advisory Boards

Teamwork within the Division

Given the Division's programme thrust which focus on the inter-relations among four major areas of concern, namely: population, agriculture, environment and science and technology management, all staff members contribute directly or indirectly to outputs and delivery of services in all of the above areas. Staff members work in smaller ad-hoc teams depending on the nature of specific outputs so that they can be able to address more effectively the inter-related issues of agriculture, population and the environment while avoiding dispersion of efforts. However, inadequate human resources, both in number and skill-mix, has continued to be a major constraint to the implementation of the work programme of the Division.

In order to augment its staff strength, the FSSDD has resorted to experts from two external Advisory Boards. These Advisory Boards ensure that FSSDD's

programmes address the concern of ECA member States, have a maximum developmental impact and are sharply focussed on specific issues. Members of the Advisory Boards further review the Division's outputs after the initial peer review by ECA staff in FSSDD.

Collaboration with other ECA Divisions and Sub-regional Development Centers

The Division has also continued its policy of strengthening inter-divisional co-operation and collaboration in order to make much greater impact at the member States level. Thus, the FSSDD has collaborated further with the Development Information Services Division (DISD) to promote natural resources accounting in French speaking member countries. The Division has also collaborated very closely with the Regional Co-operation and Integration Division (RCID) in the preparation and conduct of the First meeting of the Committee on Natural Resources and Science and Technology (CNRST1). The Division has also involved all SRDCs in the preparation of the above CNRST1. These SRDCs have been instrumental to ensure the highest participation from member States.

Partnerships and Co-operation with international agencies and partners

For service delivery FSSDD collaborates with key partners including the United Nations Population Fund (UNFPA), United Nations Department of Economic and Social Affairs (UNDESA), World Wild Life Fund (WWF), World Resource Institute (WRI), International Food Policy Research Institute (IFPRI), the World Bank, United States Aid for International Development (USAID), International Service for National Agricultural Research (ISNAR), the International Institute for Applied Systems Analysis (IIASA), some African Universities/Research Institutions and ECA's sub-Regional Development Centres.

The Division has continued to strengthen its ties with diverse partners within and outside the UN system. Among the major partners it has collaborated with are the joint ECA/OAU/ADB Secretariat, UNFPA, IIASA, UN Population Division, UN-DESA, IFORD, RIPS, IDEP, CERPOD, FAO, UNDP, UNEP etc. The Division participated also in several meetings and conferences and contributed to the activities of various inter-agency committees and task forces. These include, among others, the Inter-agency Committee on Sustainable Development and the Commission on Population and Development. Moreover, there are continuing collaborative efforts with many of the sister organisations in the UN system on such activities as the exchange of data or information and the servicing of, and participation in meetings, conferences, seminars and workshops such as the African consultative meetings on sustainable development.

Advisory Boards

FSSDD augments ECA staff strength with experts from two external Advisory Boards. The Advisory Board on population-agriculture-environment inter-linkages (nexus issues), and the Advisory Board on the utilization of Science and Technology for development were constituted to ensure that

FSSDD's programmes address the concern of ECA member States, have maximum developmental impact, and are sharply focussed on specific issues.

3?

The two Advisory Boards further assist FSSDD in defining priorities and effective modalities for impactful advocacy for lowering population growth rates, increasing agricultural productivity, promoting better environmental management and encouraging utilization of existing scientific knowledge for development.

(1) Advisory Board on Population, Agriculture and Environment

Members of the Advisory Board are:

1. **Prof. G. BENNEH**, Department of Geography and Resource Development, University of Ghana, Chairman
2. **Dr. C. DELGADO**, International Food Policy Research Institute (IFPRI), Washington, USA
3. **Prof. A.O. FALUSI**, Department of Agricultural Economics, University of Ibadan, Nigeria
4. **Prof. F.S. IDACHABA**, Deputy Director-General, International Service for National Agricultural Research (ISNAR), The Hague, Netherlands
5. **Dr. Wilfred MWANGI**, Regional Economist/Regional Liaison Officer, CIMMYT, Addis Ababa, Ethiopia
6. **Prof. Ruth ONIANG'O**, Jomo Kenyatta University, Nairobi, Kenya
7. **Mr. Rudolph POLSON**, Senior Economist, Rural Development Department, Africa Region, World Bank, Washington, USA
8. **Mr. J.A. RIDL**, Ridl-Glavovic Environmental Lawyers, Kwazulu-Natal, South Africa
9. **Dr. Dunstan SPENCER**, Managing Director, Dunstan Spencer and Associates, Freetown, Sierra Leone
10. **Dr. Ann THRUPP**, Director of Sustainable Agriculture, World Resources Institutes
11. **Dr. Kwadwo TUTU**, Senior Lecturer, University of Ghana, Legon, Ghana

The Board met from September 20 to 21, 1999 and reviewed several FSSDD publications and, among others, made extensive comments on activities of FSSDD in the past year. It made the following recommendations:

- pull out*
- The Advisory Board recommended that the FSSDD should send copies of outputs to members of the Board well in advance, electronically or in hard copy, so that they would have enough time to read them before coming to the meeting. Arrangements should also be made to appraise

the Board members of the activities of the Division by sending them copies of the publications of the Division.

- The Advisory Board recommended that as a way of assisting the Division in peer reviewing its documents, the Division could send these documents for comments before finalization. The Division could share information with Board Members by using electronic media.
- Information on the work and achievements accomplished by FSSDD needed to be better packaged, to more adequately reflect the amount of work done, the extent of outputs, and also report on the constraints it encountered in the process of implementing its work programme.
- The Division should develop a monitoring mechanism for getting feedback from its clientele in a systematic manner.
- The board recommended that the Division should examine the macro-economic context of national policies in member States and their consistency with sectoral policies, since the success of the implementation of the nexus interrelationships depends on the macro-economic framework in the countries.
- The Board recommended that the Division forge linkages not only with regional institutions but also with sub-regional and national institutions and organizations, as part of the dissemination of its programme outputs.
- The process of nexus analysis should be extended to the sub-regional level to provide opportunities for Ministers from inter-related areas of the nexus, including Finance, to interact on these issues.

After a presentation to the Board of the PEDDA model and plans for its further elaboration, the Board members made the following recommendations:

- After congratulating the Division on the PEDDA Model, which has brought the intricately inter-linked issues of population, agriculture and environment and the adverse effects on food security, the Advisory Board recommended that there is a need to separate the technical aspects of the Model from the utility of the Model for advocacy purposes.
- Given the potential usefulness of the PEDDA Model for advocacy purpose, the Advisory Board looks forward to the customization of the

model at the Country level. It also urges the speedy completion of the booklets being prepared.

- In order to facilitate the understanding of the Model by policy makers, the Advisory Board recommended that the Model starts out with a few propositions and related scenarios. After the Model is well understood, it can then add more propositions and try out more scenarios.
- It was noted that the PEDAs have so far been used to create/enhance awareness among policy makers on the inter linkages among population, environment, development and agricultural issues at the regional level. The Board felt the need to create similar awareness at the grassroots level. To this end, the Board recommended that FSSDD establishes linkages with NGOs working in Africa in the areas of population, environment, development and agricultural matters and disseminates the PEDA model so that they can also appreciate these inter-linkages.

The members of the Advisory Board made the following suggestions on the Division's work programme for the Biennium 2000-2001:

- To increase the level of participation of pertinent institutions and qualified persons in the meetings planned for the Biennium, the Board recommended that the ECA ^{must} make contacts with sub-regional organizations (SROs) such as the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) in Entebbe, Southern African Center for Coordinating Agricultural Research (SACCAR), Conference des Responsables de Recherche Agricole en Afrique (CORAF), International Center for Research in Agro-forestry (ICRAF) in Nairobi, and the Forum for Agricultural Research in Africa (FARA) that have networking programmes in natural resources management.
- Concerning the implementation of the World Food Summit Plan of Action (WFS), ^{FA} the Board recommended that ECA carries out its monitoring activity in order to give it a regional focus. Moreover, by introducing nexus indicators to the assessment of its implementation, ECA would add value to the process.
- The Board felt that in order to have an African ownership of the assessment of implementation of the plan of action, there was a need to secure funds. The Board thus recommended the ECA to request the ADB, OAU and the African Group in Rome (representatives of FAO) African member States to FAO) to allocate the necessary resources so that the inter-Agency group would become operational.
- The Board recommended that its membership be expanded marginally. In selecting the new members, the Division should consider geographic, gender and linguistic criteria.

- Noting the importance of nutrition to people's productive life, the Board recommended that the ECA incorporates nutritional indicators in its advocacy work.
- Noting the practice in other organizations such as the World Bank, the Board recommended the need for the names of authors of ECA's documents (e.g. as footnote) to appear on the documents. This practice would increase accountability and provide incentive to staff and hence improve the quality of the commission's documents.
- To improve the format of ECA documents, the Board recommended that documents should, where appropriate, include boxes and graphs that highlight best practices.

To ensure ECA/FSSDD's effective coordination and facilitation of the preparation process for the Africa region's comprehensive review of the implementation of Agenda 21, to take place in 2002, the Board members endorsed the Division's plan to organize a high level stakeholders meeting early in 2000. The Board gave suggestions on the organization of the meeting. It recommended that the issues involved in sustainable development should all be well treated at this meeting. As a way of building capacity within the review process, it also recommended that participants to be invited should be people who understand the issues to be discussed at the meeting. Similarly, experts should be invited as resource persons in their personal capacity and representatives of national systems should also be involved in the process. Members of the Advisory Board should send more names of potential participants to this meeting to the Division on their return home.

(2) Advisory Board on Science and Technology

The members of the Advisory Board on Science and Technology are:

1. **Dr. Titus O. ADEBOYE**, Executive Director, African Technology Development Link, Nairobi, Kenya
2. **Prof. Daniel A. BEKOE**, Ghana Academy of Arts and Sciences, Accra, Ghana, Chairman
3. **Dr. BEYENE Kebede**, Ethiopian Science and Technology Commission, Addis Ababa, Ethiopia
4. **Prof. Rafaat CHAABOUNI**, Secrétariat d'Etat à la Recherche Scientifique et à la Technologie, Tunis, Tunisia
5. **Dr. Mashupye R. KGAPHOLA**, National Research Foundation, Pretoria, South Africa
6. **Dr. Akuro D. MBAH**, Ministry of Scientific and Technical Research, Yaounde, Cameroon
7. **Dr. Ndiaga MBAYE**, Secrétaire Exécutif, Conférence des Responsables de la Recherche Agricole en Afrique de l'Ouest (CORAF), Dakar, Sénégal
8. **Dr. Omo OHIOKPEHAI**, Ministry of Agriculture, Gaborone, Botswana
9. **Dr. Banji O. OYEYINKA**, Nigerian Institute of Social and Economic Research, Ibadan, Nigeria

The Board met on June 4 and 5, 1999. Among others, the Board noted the achievements of FSSDD since its last meeting. After noting the difficulty of jointly developing projects with Member States for donor funding, the Board made the following recommendations:

- Select two or three countries as pilot cases for developing such proposals;
- ECA may use the S&T profile study as useful starting point.

In addition, the Board made extensive comments and recommendations on the operationalization of the ECA Science and Technology Network (ESTNET). The Board recommended:

- Preparation of basic operational and information guidelines on Lotus Notes for the use of focal points, to help them access the ESTNET web site;
- Inclusion in ESTNET training in its proposed sub-regional workshop;
- Redrafting the ESTNET project proposal so as to target specific donors for the project. In redrafting it, the Board suggested that the FSSDD should liaise with DISD in order to enlist their expertise as needed.

The Division tabled before the Board the contents of a proposed training workshop. The Board recommended that:

- The training workshop should include also an executive dialogue, a training on the ESTNET as well as on important issues in the management of technology;
- The workshop be replicated in other sub-regions of Africa.

In addition, the Board suggested modalities for implementing the workshop, including level of participants, preparation of training modules, etc.

In order to ensure better participation and attendance in meetings of ECA, the Board recommended that:

- Focal points in various countries be relied on for establishing contacts and identifying target participants, and when Ministers are targeted, the Heads of States be first approached through appropriate senior officials within the executive arm who is in a position to articulate the issue to the President/Prime Minister;
- It also suggested that private sector participation be encouraged in view of their crucial role in the economies of member States, and that the duration of most meetings be limited to a maximum of 4 days in order to ensure good attendance.

After reviewing the Division's work programme in Science and Technology for the Biennium 2000-2001, the Board suggested that non-recurrent publications should be of very high standard to make an impact in member States. Hence, the Board agreed to constitute a committee, from the Advisory Board, to work out the modalities for obtaining authoritative publications on selected themes which will make sure that the publications are a result of empirical research at the member States level and ensure that refereeing and proper publishing under a guest editor are done so that the publications could become reference materials in the region.

Quality Control of FSSDD Outputs

To ensure good quality, after initial peer review by staff in FSSDD and other ECA Divisions, members of the Advisory Boards further review the Division's outputs. It is only after the review by member(s) of any of the two Advisory Boards that FSSDD's outputs are sent to the ECA's Communications Team for final editing and publication.

Highlights of Major Activities in 1999

I. Strengthening Analytical Capacity and Advocacy and Awareness Creation for Better Understanding and Management of the Complex Interaction among Population, Environment and Agriculture

Advocacy to ensure that ECA members States (i) integrate population, environment and food security concerns into holistic, national development plans, and (ii) promote better stewardship of Africa's environment and natural resources received substantial human and financial resources, in the period under review.

II. Environment and Natural Resources Accounting

To promote sustainable utilisation of natural resources, two Environmental and Natural Resources Accounting Seminars were held at the UNCC from 26 to 28 October 1998 and from 1 to 5 November 1999. The Seminars provided support to the efforts of African governments to identify, capture, and use resource rents for economic development. The seminars introduced the System of Integrated Environmental and Economic Accounting (SEEA) and its potential policy uses. It also enabled wider dissemination of experiences of several countries that have experimented with natural resources accounting. Moreover, the seminars which were jointly organised with technical input of WWF and DISD, raised awareness among participants to the potential contributions that the SEEA, as a planning tool, can make to Africa's economic development.

The Advisory Groups have endorsed future regional seminars that would be held at each of the SRDCs to persuade African policy makers to integrate environmental and economic accounting into systems of National Accounting.

Other FSSDD's awareness raising activities include the following: The 1998 World Environment Day was marked by ECA with a poster entitled "For Life on Earth" which was distributed to all member States. The 1998 World Habitat Day was commemorated in ECA by a widely circulated paper titled "Safer Cities: An African Perspective".

III. Strengthening the Capability of Member States to Utilize Science and Technology for Development

From 15 to 18 November 1999, the FSSDD in Collaboration with RCID organised the first meeting of the Committee on Natural Resources and Science and Technology (CNRST1). This meeting of the CNRST1 was planned to deliberate on the nexus of Natural Resources and Science and Technology. With this in view, the overall theme of the CNRST1 meeting was "*Natural Resources, Sciences and Technology: Enhancing Intra-African Co-operation for Competitiveness and Sustainability in the Twenty-first Century.*" Participants were invited to look at the impact of technological innovations on natural resources development and how Africa can co-operate and integrate efforts at sub-regional and regional levels to be competitive in the new global environment.

From 18 to 19 June 1998, an Executive Dialogue on Linking Scientific Research Results to Industries, took place at the UNCC. The Dialogue brought together some African Ministers and high-level policy makers responsible for Science and Technology with leaders operating in the private sector. The theme of the dialogue was "Science and Technology policies and management in Africa." Among Dialogue participants were the Minister of State for Finance, Planning and Investment of Uganda, the Deputy Minister of Environment, Science and Technology of Ghana, and the Commissioner for Science and Technology of Ethiopia, and some industrialists. The Dialogue fostered ECA's understanding of the issues and stimulated executive-level action with particular emphasis on leadership, entrepreneurship and commitment to Science and Technology-driven development in Africa.

IV. Improving the Quality and Availability of Information on Population, Environment and Food Security

FSSDD is strengthening the Population Information Network in Africa (**POPIN Africa**). In partnership with the global POPIN based in UNDESA, POPIN-Africa identifies, strengthens and co-ordinates population information activities at regional and national levels and facilitates availability of population information. In collaboration with UN specialised agencies POPIN-Africa provides a forum for the exchange of information and experiences among African countries on population issues.

The Division also holds Workshops and Seminars to determine appropriate research agenda and methodologies for conducting credible research in the inter-linked areas of Population, Environment and Food Security aimed at creating new data base to provide member States with accurate and

timely information. For example, FSSDD hosted a seminar on linkage(s) between Women's Reproductive Health and Household Food Security in view of the enormous contribution of women to Africa's food production and their role in ensuring household food security.

Related Publications

Research results, emerging issues such as HIV/AIDS and the problems of youth are published in FSSDD's *Africa Population and Development Bulletin*. The first issue of this bulletin covered HIV/AIDS, current status of Population Policies in Africa, Implementation of the continental population plan of action, the Dakar/Ngor Declaration, and Implementation of the ICPD Plan of Action. The Division has also produced *Africa: Demographic Environmental and Agricultural Indicators*, a document which contains data for management of nexus issues.

V. Research Agenda : Generating New Data on Women's Reproductive Health and Food Security in Africa

The FSSDD organised from 11 to 13 October 1999 a Workshop on Women's Reproductive Health and Household Food Security in Africa. The workshop brought together partners from the Africa Population and Health Policy Research Centre (APPRC), Nairobi, Kenya, and other experts in demography, medicine, agriculture and human nutrition from Universities and Research Institutions. The workshop's outcome is a research agenda and appropriate methodologies for studying the linkages between women's reproductive health and household food security.

During the workshop, it was noted that although much research exists on food security and on reproductive health as separate issues, researchers have paid little attention to the relationship between the two. The dual roles that women play in producing and preparing food, as well as in bearing and rearing children make the comprehension of the relationships between reproductive health and household food security extremely crucial. We need a more complete understanding of the strengths and significance of these relationships in order to optimally develop policies that improve the quality of life of women and their families.

Reproductive health and household food security both have several dimensions. For each of these concepts, any one of its many dimensions can be linked to several dimensions of the other. These linkages provide the framework for examining the relationship between the two concepts. Research should evaluate the relationships between the various indicators of household food security and reproductive health, as well as how these relationships are conditioned by environmental, socio-political and cultural factors.

Research should focus on ways in which outcomes of both reproductive health and household food security may be jointly determined by other factors such as poverty, rural-urban migration, wars and political instability, HIV/AIDS, etc. There is also a need to investigate the underlying dynamics

associated with the mechanisms of coping with food insecurity such as sexual services and child labour, adolescent reproductive health, male responsibilities, and reproductive health and household food security linkages in special and neglected groups.

VI. Advisory Services

At the request of member States, the FSSDD provided, and continues to provide advisory services to African countries in the development of food security information bases, the improvement of integrated national information systems, policy formulation and programme development, and on modalities for achieving an increased effectiveness in the application of science and technology to development.

VII. Inter-Agency Cooperation and Liaison

The Division participated in several meetings and conferences and contributed to the activities of various inter-agency committees and task forces. These included the United Nations Commission on Science and Technology, the Inter-agency Committee on Sustainable Development, the Commission on Population and Development, the Governing Council of the United Nations Regional Institute for Population Studies (RIPS), the Governing Council of IFORD, and the Governing Organ of the African Regional Centre for Technology. Moreover, there is continuing collaborative efforts with many of the sister organisations in the UN system on such activities as the exchange of data or information and the servicing of, and participation in meetings, conferences, seminars and workshops such as the African consultative meetings on sustainable development.

VIII. Follow up of UN Conferences of the 1990s

In its capacity as the Africa secretariat for the Africa Population Commission and the Committee on Sustainable Development, the Division with the active collaboration of the UNFPA, the Organisation of Africa Unity (OAU) and the Africa Development Bank (ADB) spearheaded the mid-term review of ICPD-PA which resulted in the ICPD+5 Progress Report on the implementation of the ICPD-PA. Various meetings preceding the preparation of the regional report were beneficial to member States who were provided opportunities for exchange of best practices and modalities for overcoming constraints encountered in implementing the ICPD-PA.

Reports on implementation of Agenda 21, and the implementation of Action Plans emanating from Habitat II, and the World Food Summit were prepared by FSSDD and reported to ECA's Committee on Sustainable Development. // *

IX. Special Assistance to Host Country: An example

FSSDD assisted the host government, Ethiopia, by implementing a special UNDP-funded food security programme focusing on arid, fragile and wetland ecology. This programme known as Sustainable Agriculture and Environmental Rehabilitation programme (SAERP), and District Agriculture and

Rural Development Integrated Services (DARDIS) had four interrelated, mutually reinforcing objectives. These are (a) increasing production and productivity; (b) rehabilitating the fragile environment; (c) capacity-building; and (d) enhancing the participation of beneficiaries especially at the grass-roots level.

X. Selected Outputs of FSSDD

- ❖ *Poverty, Food Security and Environmental Linkages: Policy Challenges in Environmental Fragile Areas in Africa (FSSDD/98/16)*
- ❖ *Approaches to the Management of Nexus Issues: Best Practices (FSSDD/98/17)*
- ❖ *Integrated Water Resources Management: Issues and Options in Selected African Countries (FSSDD/98/19)*
- ❖ *Compendia of Science and Technology Best Practices (FSSDD/98/2(a) - 2(0))*
- ❖ *Role and Potential of Indigenous Technologies for Sustainable Food Security (FSSDD/98/20(a) - 20(d))*
- ❖ *Food Production and Food Security in the Sahelian countries: Some Key Issues and Policy Challenges (FSSDD/99/03)*
- ❖ *Policy Brief on Science and Technology for Sustainable Development, No.2 (FSSDD/98/1)*
- ❖ *Population, Agriculture and Environment Indicators of Africa (FSSDD/98/26)*
- ❖ *Africa's Population and Development Bulletin, June-July 1999 (FSSDD/99/04)*
- ❖ *Study on Soil erosion and destruction of land resources: Issues and trends in Africa (FSSDD/99/01).*

FSSDD Programme Profile, 2000

Theme: Transition from Higher to Lower Population Growth Rates

Thematic Area	Range of Services						Expected Impacts
	Advocacy and Policy Analysis	Convening Stakeholders and Building Consensus	Data and Information Dissemination	Launching Networks and Connectivity	Technical Assistance and Building Capacity	Standardisation and Harmonisation	
<ul style="list-style-type: none"> Analysing the inter-linkages between population, agriculture and environment Using the PEDDA model Assessing the achievements and constraints of the implementation of the DND and ICPD,PA 	<ul style="list-style-type: none"> Recurrent Publications: Africa: population, agriculture and environment indicators Compendium of best practices in population, environment and agriculture in Africa Non-recurrent Publications: The state of the demographic transition in Africa(**) Population, environment and agriculture interlinkages and sustainable development(**) Handbook on PEDDA model (User's manual)(**) 	<ul style="list-style-type: none"> Second Meeting of the Committee on Sustainable Development(*) Fourth meeting of the follow-up committee on the Implementation of DND and ICPD,PA (FC.4) 	<ul style="list-style-type: none"> Booklets on population, environment and agriculture interrelationships for countries in which PEDDA has been initialized(**) 	<ul style="list-style-type: none"> Networking with population scientists; regional research institutions including RIPS, IFORD, IDEP and CERPOD; individual researchers; and funding agencies Further development of POPIN Africa(**) 	<ul style="list-style-type: none"> Presentation of the PEDDA Model at various meetings and during missions(*) Missions and services to member States on holistic development incorporating population, environment and agricultural concerns Backstopping of sub-regional institutions on the design and implementation of food security and sustainable development 	<ul style="list-style-type: none"> Co-operation, collaboration and liaison with OAU, ADB, UNFPA, RIPS, IFORD and other national, sub-regional and international intergovernmental and non-governmental organisations on the dissemination of the PEDDA model and monitoring the implementation of DND and ICPD,PA Collaboration with other UN agencies and institutions concerned with issues related to food security and sustainable development such as UNFPA, WHO and IBRD Co-ordination and harmonisation including participation in the activities of the ACC, Inter-agency Working group on Demographic Issues, and Commission on Sustainable Development 	<ul style="list-style-type: none"> Awareness created leading to better knowledge and increased discussion of the holistic treatment of population, agriculture and environment concerns in development planning and policy making Built national and local capacity to analyse and manage nexus issues in the context of sustainable development Improved monitoring of the political and societal commitment to the implementation of DND and ICPD,PA

(*) High priority activities: first 20 %

(**) High priority activities: second 20 %

Theme: Transition from Low to High Productivity Agriculture

Thematic Area	Range of Services						Expected Impacts
	Advocacy and Policy Analysis	Convening Stakeholders and Building Consensus	Data and Information Dissemination	Launching Networks and Connectivity	Technical Assistance and Building Capacity	Standardisation and Harmonisation	
<ul style="list-style-type: none"> • Undertaking policy analysis of food security, population and environmental dynamics 	<ul style="list-style-type: none"> • Recurrent publications: • Africa: population, agriculture and environment indicators • Compendium of best practices in population, environment and agriculture in Africa • Non-recurrent publications: • The state of agriculture and the environment(**) 	<ul style="list-style-type: none"> • Second Meeting of the Committee on Sustainable Development(*) • Second Meeting of the advisory Board on Population, Environment and Agriculture(*) • High-level stakeholders meeting on sustainable development(**) 	<ul style="list-style-type: none"> • Collection, analysis and dissemination of data and information on Africa food situation outlook: two issues • Booklets on population, environment and agriculture interrelationships for countries in which PEDDA has been initialized(**) 	<ul style="list-style-type: none"> • Network of stakeholders and specialists in agriculture: ECAPAPA, etc. 	<ul style="list-style-type: none"> • Presentation of the PEDDA Model at various meetings and during missions(*) • Advisory services to member States on food security, population and environment • Backstopping of sub-regional institutions on the design and implementation of food security and sustainable development programmes 	<ul style="list-style-type: none"> • Collaboration with other UN agencies and institutions concerned with issues related to food security and sustainable development such as FAO, UNEP, UNDP, UNFPA, WFP • Co-operation and liaison including participation in the activities of the ACC inter-agency working group on the CSD and the Commission on Science and Technology for Development 	<ul style="list-style-type: none"> • Better understanding of the nexus issues as a basis for launching joint food security schemes in Africa; • Development of appropriate strategies for agricultural intensification in various ecosystems of Africa. • Adoption of best practices in the management of related nexus issues; • Improved capacities in the design and implementation of food security and sustainable development programmes; • Building of strong and effective partnerships.

(*) High priority activities: first 20 %

(**) High priority activities: second 20 %

Theme: Transition from Poor to Better Stewardship of the Environment

Thematic Area	Range of Services						Expected Impacts
	Advocacy and Policy Analysis	Convening Stakeholders and Building Consensus	Data and Information Dissemination	Launching Networks and Connectivity	Technical Assistance and Building Capacity	Standardisation and Harmonisation	
<ul style="list-style-type: none"> Analysing factors and issues that influence environmental transition 	<ul style="list-style-type: none"> Recurrent publications: Africa: population, agriculture and environment indicators Compendium of best practices in population, environment and agriculture Non-recurrent publications: The state of agriculture and the environment in Africa(**) Population, environment and agriculture interlinkages and sustainable development(**) 	<ul style="list-style-type: none"> Second Meeting of the Committee on Sustainable Development(*) High level stakeholders meeting on sustainable development(**) Second meeting of the advisory board on population-environment-agriculture(*) 	<ul style="list-style-type: none"> World Environment Day Poster Contribution to the booklets on population-environment-agriculture PEDA model: data collection and data dissemination 	<ul style="list-style-type: none"> Networking with UNEP, Habitat, etc. 	<ul style="list-style-type: none"> Presentation of the PEDA Model at various meetings and during missions(*) Regional training on environment and natural resources accounting(**) 	<ul style="list-style-type: none"> Collaboration, co-operation and liaison with UNEP, UNCHS, DSA, CSD, NESDA, NGOs and IGOS 	<ul style="list-style-type: none"> Heightened awareness of environmental issues and of the urgency for integrating them into development planning Better understanding of the fact that natural resources are not free goods Close interaction among experts and member States on environmental issues

(*) High priority activities: first 20 %
 (**) High priority activities: second 20 %

Theme: Application of Science and Technology for Sustainable Development

Thematic Area	Range of Services						Expected Impacts
	Advocacy and Policy Analysis	Convening Stakeholders and Building Consensus	Data and Information Dissemination	Launching Networks and Connectivity	Technical Assistance and Building Capacity	Standardisation and Harmonisation	
<ul style="list-style-type: none"> Promotion of science and technology for sustainable development 	<p>Recurrent publications:</p> <ul style="list-style-type: none"> Compendium of best practices in science and technology for food security and sustainable development Africa: population, agriculture and environment indicators Non-recurrent publications: Linkages between research and agro-industries in Africa(**) Population, environment and agriculture interlinkages and sustainable development(**) 	<ul style="list-style-type: none"> Third Meeting of the Advisory Board on Science and Technology(*) 	<ul style="list-style-type: none"> Compendia of best practices in science and technology for food security and sustainable development Newsletter on the ESTNET 	<ul style="list-style-type: none"> Further development of the ESTNET: the ECA's Science and Technology Network(*) Popularising the network; Compilation and distribution of information in the network; Internet Web-site for the ESTNET 	<ul style="list-style-type: none"> Presentation of the PEDDA Model at various meetings and during missions. Advisory services to member States and Institutions (on request) on the design and implementation of integrated policies pertaining to the development and application of science and technology for sustainable development Backstopping of ECA-sponsored institutions in science and technology, including: the African Regional Centre for Technology (ARCT) 	<ul style="list-style-type: none"> Co-operation and liaison with member States, key international, regional and subregional intergovernmental and non-governmental institutions in science and technology (e.g. CGIAR, CORAF, AAS, PUST, OAPI, ARPO, ATPS, AFRISTECH) Co-ordination and harmonisation with other United Nations Agencies and Institutions concerned with science and technology for development, such as the United Nations Commission for Science and Technology for Development (UNCSTD), UNU/INRA, UNCTAD, FAO, UNESCO, UNIDO, UNEP, WFP, APCTT, etc. 	<ul style="list-style-type: none"> Enhanced exchange of information relating to S&T development and application in member countries. Increased awareness in member countries of the importance of S&T for African development. Increased sensitisation of member States to the role and potential of indigenous technology Better dissemination of S&T best practices in Africa.

(*) High priority activities: first 20 %

(**) High priority activities: second 20 %

Box 1 - FSSDD Web Pages

Information on FSSDD's activities is featured on the Division's home page within the ECA website. The FSSDD home page is located at:
<http://www.un.org/Depts/eca/divis/fssd/index.htm>

The FSSDD web pages carry current data on population, agriculture and the environment, text of related publications including the ICPD+5 regional report on the implementation of the ICPD plan of action in African countries.

FSSDD's home page contains background information on the establishment of the Division, its goals and strategies to address the interlinked issues of population, agriculture and environment. This is followed by the four thematic areas of focus, namely; (1) transition from high to low population growth rates, (2) transition from low to high productivity agriculture, (3) transition from poor to better stewardship of the environment and (4) the application of science and technology for sustainable development. Below the titles of each of the four thematic areas are short descriptions of the goal, implementation strategies, highlight of 1998 activities, major publications (1997 and 1998), and upcoming events. Names of staff members who form working teams in the thematic areas are also included.

The UNFPA-sponsored Global Population Information Project web pages provide more information on population activities of the Division. The site contains Africa's population information and facilitates access to population literature and data produced within the region, at national, sub-regional and regional levels. From these web pages researchers, policy-makers and other interested stakeholders are able to get a comprehensive and up-to-date database on African population experts, age-sex distribution of population of ECA member States, statistics on fertility, mortality, migration, and contraceptive prevalence rates. The web-site have such features as traffic monitoring and links to related sites including the Global POPIN, sub-regional population institutions and the national population focal points.

The FSSDD webpages provide also a link to the ECA/FSSDD's Science and Technology Network (ESTNET). The ESTNET intends to foster communication and information exchange related to Science and Technology policies and management. As such, the ESTNET site provides links to several African institutions involved in Science and Technology. The site hosts also databases on best research results, success stories and best practices in the application of Science and Technology and disseminate S&T documents and information on conferences and meetings.

For more information:

Write to: UNECA/FSSDD, P.O.Box 3001, Addis Ababa, Ethiopia

Call: Tel.: 251-1-517200 ext. 35320 or 510406

Fax to: 251-1-514416 or 510350

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Inconsistencies

— Profinal title some cases
— Position title some cases

**TRANSITION FROM POOR TO
BETTER STEWARDSHIP OF THE
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Mr. Gibril Moulie

*how is Gibril
different from
Lendogone?*