Workshop On Plan of Action for Management and Sustainable Utilisation of Water Resources 11 of March of 2005-Luanda-Angola Report (Final Draft)

ACADIR
Angola

Apoio: Associação de Conservação do Ambiente e Desenvolvimento Rural Integrado

Facilitators: Dr Isindro Pihneiro and Monty Montshiwa
Translation by: Robert Machalo
Edited by: Monty Montshiwa

Contents

INTRODUCTION

This report is a result of workshop on Framework For Action (FFA) geared towards management and sustainable use of the water resources, which took place on 11th March 2005, in Luanda - in the Republic of Angola, under the co-operation of the Ministry of the Energy and Waters - GABHIC, Global Water Partnership - Southern Africa (GWP-SA) and Association of Environmental Conservation and Integrated Rural Development (ACADIR).

Workshop Objectives

- To introduce the GWP from its conception to the current status include intentions and layout the FFA process;
- To contribute to the definition of strategies for better management and sustainable use of the water resources in Angola.

Working Methodology

- Presentations on the set themes giving practical examples based on the experience of the presenters. This was done using powerpoint projections and presentations were followed by plenary discussions.
- Working groups were set to further elucidate on the presentations given, with guiding questions. There were group presentations of which the outcome formed part of the resolutions to guide the implementation of the GWP FFA for Angola.
- Support materials were distributed prior to the presentations to allow participants to go through the presentation for an active participation.

Opening speech

Mr. Jean Boroto, Representative of Global Water Partnership - Southern Africa; Mr. Eng.º Gomes of Silva, General Director of the Cabinet for Administration of the Bacia Hidrográfica of the river Cunene, Invited Guests, Ladies and Gentlemen.

From the past years, poverty in developing world has been and continues to be one of the problems of great concern both in the respective governments and the international community's. The same is no exception at the regional level, poverty eradication is the main objective and forms the agenda of the Southern African Development Community (SADC). Issues of access to water are paramount to the endeavour to eradicating poverty. Therefore, any strategy of poverty reduction should including the importance of water in the context of health, use of the land, food production, subsistence means, industrial development, planning and environmental protection. Integration of the abovementioned is inevitable. Different sectors needs to collaborate and to integrate actions to achieve efficient and effective use and management of water for poverty reduction. (Extracts by GABHIC).

By: His Excellency,
Minister of the Energy and Water,

Botelho vas-Conselo

THEME I: GWP /SOUTHERN AFRICA ACTION PLANO

Vision: Equitable and sustainable use of water for a social and environmental justice, regional integration and economical benefit for today and future generations.

Mission: To promote collaboration, management and sustainable use of the water resources in Southern Africa.

Strategy: To facilitate and to demonstrate the implementation of Integrated Water Resources Management (IWRM) through agreements of local, national, regional and international partnership.

What is GWP?

The Global Water Partnership is an international network open to all organizations involved in the management of water resources. It was created to promote Integrated Water Resources Management (IWRM) whose objective is to guarantee management and coordinated development of water resources and land through the maximization economy and social welfare without committing the sustainability of vital environmental systems. GWP promotes IWRM through forums at global, regional and national level to support the implementation of IWRM.

The GWP-SA was the first to be launched in the regional network of GWP. The GWP-SA was launched in July 2000.

Members of the GWP-SA

The GWP-SA managed to get more than 150 institutional members distributed within Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swazilândia, Tanzania, Zambia and Zimbabwe. Among the members, there are representatives of government, educational institutions, private sector and the civil society in Southern Africa. Those members bring for the network technical know-how, experience, information and determination to help to improve management and use of the limited water resources of the area.

Affiliation in the GWP-SA

The affiliation is open to all the institutions interested in the integrated management of water resources. The affiliation is made fundamentally with manifestation of interest and it is free. All the institutions are only requested to fill a registration form and submit it to the regional secretariat. It is hoped that all the institutions members of the GWP-SA contribute actively for the network and obey the principles of the Rio-Dublin, that recognize the following:

The fresh waters are a limited and vulnerable resource, essential for life, development and environment. The management and development of the water should base on the participative debate involving all the users, planners and politicians at all levels. The woman plays a fundamental part in the supply, management and conservation of the

water. Water has economical value for all its users and should be considered as an economic good.

Water National partnerships

The form of influencing IWRM effectively in the area, the GWP-SA has been creating National Water Partnerships (NWPs) in the countries where GWP has members. Country Water Partnerships (CWP) already created include Botswana, Lesotho, Malawi, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. Each CWP determines its own activities that it has as objective to take care of the IWRM identified gaps in the country.

Governing System

The network of GWP-SA is composed of three main support and assistance groups to its work:

1. Partners of the GWP-SA: these are members of the network of different countries of the region that meet annually in Partners Advisory Meeting (AM), where partners' important decisions are made;
2. An Advisory Group (AG): it is the organ that orients the operations of partnership. This is a group represented at a regional level;
3. A Secretariat: it is responsible for the general management, coordination and administration of the regional program for GWP-SA activities. The Secretariat is led by an Executive Secretary.

The added value for GWP-SA

Poverty is the main problem of Southern Africa. Any strategy of poverty reduction should including the importance of water in the context of health, use of land, food production, subsistence means, industrial development, planning and environmental protection. Different sectors needs to collaborate and integrate action to allow for the use and effective management of water for the reduction of poverty. As a neutral platform, the GWP-SA promotes this cooperation between the different sectors fundamentally in integrated way for the development and integrated management of water for poverty relief.

GWP-SA' main force rests in its vast regional network of NWP that grant the platform so that all the sectors join together, exchange ideas and promote action based on IWRM to solve water priority issues. This vast regional network is in connection to the water world network in the GWP family that facilitates the learning of progresses in other parts of the world. The network also supplies know-how of local and global level for all those who seek a strategic counselling and technical support through partnerships.

The GWP-SA considers that the concept of IWRM is well accepted in the area, but it is not well seen in the form it is applied practically. The GWP-SA demonstrates the meaning of IWRM in the area. This practical demonstration is supported by the system of information, namely the Network of Water Information in Southern Africa (www.sawinet.org) and GWP IWRM net (www.gwpforum.org). These are electronic databases. SAWINET is a dynamic base of data that just highlights key areas of demand

and partition of experiences in these areas. The IWRM network draws political, institutional instruments and of management that offer practical advices, information and directives on the implementation of IWRM.

Regional strategy of the GWP-SA 2004-2008

The immediate objective of GWP for the period 2004-2008 is to help the countries to apply the integrated management of water resources as a form of assuring use, equitably management, efficient sustainable management of water.

For this period, the GWP-SA intends to obtain the following results:

1. To facilitate IWRM and the development strategy of water politics at relevant levels.
The GWP-SA will render a substantial support to the national and regional water processes politics through the SADC Water Division, of its structural representatives in the member States, and of CWPs. The GWP-SA will work directly with the Water Division of SADC to determine how a good partnership can support the regional contributions in initiatives such as NEPAD. Through orientations at global level, GWP-SA has been prioritising assistance to the countries in the form that they should reach the objectives of WSSD related to the development of IWRM and plans of global water supply up to 2005. GWP-SA will work with SADC and with national governments.

2. Development of IWRM programs and instruments to respond to the national and regional needs.
Important instruments and directives were developed (fundamentally in good practices), tested in real cases (supported by formation actions and institutional training), collected and disseminated for the use and benefit of the regional stakeholders. As a reinforced network, the main task of GWP is to facilitate the information exchange and experiences. The GWP-A is well positioned internationally and regionally to support the access, adaptation, production and dissemination of information.

3. To guarantee connection between GWP and other entities and sectors.
In the relationship of this result, the GWP-SA intends to establish effective programatic connections with global, regional, institutional initiatives and several sectors in order to promote and implement effectively the IWRM.

4. To create and to consolidate GWP partnerships at relevant levels.
The already created CWPs will be reinforced and new CWPs will be established and supported in remaining countries of SADC. It is only through strong partners, involving different stakeholders at several levels, that IWRM can be effectively promoted and implemented. The national and regional Water Partnerships are to be reinforced with the fundamental objectives to ensure a substantial regional support.

5. Effective development and management of the GWP network.
The general plan is that the GWP-SA makes effective management and coordination of the whole program of the network. This means that the operations of the growing

network must efficient and that the synergies and coherence are insured in several stakeholders. This equally means that the partnership work is important (IWRM with a special attention on poverty and governing), that positive impacts of the work existing and that those efforts and successes can be sustained.

GWP-SA's Great Achievements since 2000

- National and regional water partnerships: the creation of a vibrant regional network with the support of national water partnerships in half of the countries of SADC are almost an important step heading for consolidation of the Partnership and warranty that there are already existing national platforms for the implementation of the national programs of IWRM.
- Platform for dialogue: through national and regional partnerships, the GWP-SA has been the only effective multi - dimensional platform for an actions and dialogue on IWRM. SADC for example, brought a series of subjects that need contributions of several stakeholders for forums of the GWP-SA, as annual Partner Advisory Meetings. Through events of this manner, the Water Division of SADC obtained contributions for the Politics and Regional Water Strategy and for some projects of the Regional Strategic Action Plan.
- Regional Vision of water and form of action: the GWP-SA facilitated the development of the Vision of SADC water for the century 21, that is equitable and sustainable use of water for a social and environmental justice, regional integration and economic for the benefit of today and future generations ". This position is supported by eight sub-visions. The document of the whole vision is available in English, French and Portuguese in the Secretariat of GWP-SA and in the website www.gwpsa.org.zw. The GWP-SA is at the moment facilitating the development of the regional action (FFA) in order to reached this vision. Through its CWPs, the GWP-SA will continue to facilitate the development of national FFAs.
- Access the information, experience and technical counselling on IWRM: the partition of information and experiences in IWRM are the areas that GWP-SA is to develop through information SAWINET - www.sawinet.org. The network continues to be improved to satisfy the demand of information. Through the GWP-SA, regional entities have access to other regional and global sources of information.
- The theoretical transformation of IWRM to practical actions: GWP-SA not only it created institutional training in IWRM, but gave other steps to demonstrate the meaning of IWRM in the area. Two countries are presently implement demonstration projects at the level of sub-basins. For example the project Manyame, in Zimbabwe, offers opportunity of involvement of stakeholders at local level. The lessons of this project will be shared with other countries to facilitate their own implementations.
- It bets in the youth: the youth from Southern Africa was mobilized under the auspices of the GWP-SA to assure its future creating a knowledgeable generation in water subjects. They formed Southern Africa Youth Action Team (SAYWAT) to guarantee that the youths play its part in IWRM and contribute to a good management and use of water.

❖ Secretariat of the GWP-SA: the regional Secretariat is located in Harare, Zimbabwe. The Secretariat is led by an Executive Secretary and it has a personnel composed of a water expert, an information officer, project officer and an administration officer.

By: Jean Boroto,
Representative of Global Water Partnership - Southern Africa

THEME II: INTEGRATED MANAGEMENT OF WATER REOURCES AND EQUITATIVE ACCESS TO WATER

Characteristics

- Area: 1 246 700 Km2;
- Average annual Precipitation: 1060 mm;
- Water in medium year: 1 320 Km3;
- Annual superficial Flow: esteemed in about 140 Km3;
- Morphology: coast zone planes, interior - table plateau (1000 2000m), where are the largest basins are born;
- Main factors that influence the climate: cold current of Benguela and altitude;
- Annual average Temperature: 16ºC - 26ºC (minimum 9ºC and maximum 44ºC);
- Precipitation: it varies from <250mm and irregular (Namibe desert)> 1400mm and regulate (Northeast);
- Stations: rains (7 months) and it Evaporates;
- Potential water of Angola:
    - Divided into 47 Basins (many with excellent flows and pronounced differently)
    - 5 Aspects: Atlantic, whose rivers drain in the Atlantic Ocean (41.1%); Zaire (21.6%); Etosha (3,8%); Cubango/Cuito (11,9%); it Indicates (18,6%);
- Territory: well fed of water (South except - Southwest <600 mm), it has RH in quantity and quality well tough can allow to develop projects of supplying water, of feeding the cattle, of irrigation, industry, mines and hydroelectricity in an integrated way;
- Water Resources - structuring element of development process and blessings of the country. Intersectarial use (primary, secondary sector and services);
- Planning of RH: "Transverse Planning':
    - Level: Local, Regional and National;
    - Horizon: Short, Medium and Long term;
- Basin Hydrographical - unit of management of RH (Law of Waters);
    - Connection: Use with multiple;
    - Integrated development of BH.

Supply of Drinkable Water and Sanitation

- Low covering rates (solutions with base in systems of superficial water, or extraction by bore-hole) and lowers quality of services, with disastrous consequences in the public health (discharge rates of water transmitted diseases);

- Release of influents in the course of water lacks a special care (reactivation of the industries and re-settlement of the populations);
- Dry and full: extreme water phenomena that they should be faced with care, in the elaboration of General Plans and in the management activities of BH.

Institutional aspects

With the existence of the Law of waters (Law nº06/02) already in force and with the approval of Water Sector Development Program by the Council of Ministers in January 2004, they are considered creating conditions so that, on one side, begin the integrated management of the water resources, for only organ responsible, MINEA, that for the force of the referred decree Law assumes the responsibility of the stocktaking and management of the underground waters, that previously was under the responsibility of the Ministry of Geology and Mines and, for other, in the context of the Program of Development of Water Sector, if it can starting from next year to develop activities in that area in a scheduled and systematized way, putting in mind the creation of National Institute of Water Resources whose creation if perspective for the year 2005.

At international level Angola ensures she is represented in Commissions of States of Basin, adopting also the Beginning of GIRH.

Integrated management of water resources

- To restore and accumulate the nets hydrometric, udometric and meteorological;
- Stocktaking of RH;
- Stocktaking of the needs;
- Water balance;
- General plans;
- National plans of waters;
- Regulation of the Law of Waters;
- Institutional reforce.

Expected results

- To reach the goals established by the Summit of Millennium of the United Nations and Summit of Rio + 10 (Johannesburg 2002), to know:
  -To implant the model of GIRH in 50% of BH up to 2015;
  -To reduce for half, the percentage of the population without access to water and sanitation up to 2015.

By: Eng. Armindo Mário Gomes da Silva,
General Director of the Cabinet for Administration of the Bain Hydrographic of the river Cunene.

THEME III: ENVIRONMENT, SUSTENTABILITY AND SAFETY AGAINST NATURAL ACCIDENTS

Actual state of the Atmosphere

Social Component	Political component
- Life quality of the populations; - Problems of public health; - Access to water and basic sanitation; - Poverty.	- Weak participation of the society in decision taking; - Deficiency complementary legislation; - Weak application of the existent laws.
Economical Component	**Biophysical Component**
- High unemployment situation; - Illegal and unsustainable use of the resources (commercialization); - Corruption of the real value of the resources.	- Pressure on the natural resources and water; - Pollution of the sources of water; - Erosion.

Main Problems

Of human order	Of natural order
- Human establishments; - Industrial pollution; - Domestic pollution; - Erosion of soils for agricultural practices and movement of lands for civil construction.	- Full; - Droughts; - Winds; - Climatical variability.

Sustainability and Safety Against Natural Accidents

Sustainability	Safety against natural accidents
- Necessary political support to convert ideas and discussions in practical action; - Technicians commitment, personnel and civil society to support those practical actions; - The identification and choice of models of environmental management that must be equatative and sustainable; - Mobilization of financial resources for the execution of the practical actions.	- Torrential rains and floods; - Prolonged droughts; - Fires; The people that have more management capacity and survive the adversity has less risk and consequently they are safer. - Limited choices; - Lack of ability and capacity to adapt; - Marginalization; - Dependence; - Vulnerability and insecurity.

Accomplishments

- Creation of infrastructures of environmental protection;
- elaboration of legislation, politics, programs and projects of environmental protection;
- Formation of personnel to guarantee the protection of environmental sustainability;
- Availability of budgets to support politics, programs and projects of environmental and social character.

Challenges

- Obtaining of funds;
- Lack of specialized personnel for the elaboration and execution of projects/programs;

- Amendment of environmental legislation, particularly the regulation bill of Basic Law about Environment;
- Creation of infrastructures support to the projects;
- The communities' involvement in decision taking;
- Pre-warning system against natural accidents;
- Demining and human resettlement;

Recommendations

- To define the priorities and preferences to support the vision of Southern Africa;
- To clarify the responsibilities and the users' rights of water resources;
- To expand and to improve the access to the provisioning of water and basic sanitation;
- To develop and to share studies deepened on the potential waters of Angola;
- To develop studies on the importance of wet zones for the management of water resources;
- To identify areas of collaboration in ECP;
- To create a notice system for catastrophes and natural accidents;
- To develop forecast mechanisms and monitor of climatic conditions and extreme environmental changes;
- To create a follow up committee on accidents and natural catastrophes;
- To develop legislation, politics and programs of management of droughts and of conservation of water;
- To develop emergency measures to assist serious cases of natural accidents and cases of emergency.

By- Torrential rains and floods;
    - Prolonged droughts;
    - Fires;

People that have more management capacity and survive the adversity has less risk and consequently they are safer.
    - Limited choices;
    - Lack of ability and capacity to adapt;
    - Marginalization;
    - Dependence;
    - Vulnerability and insecurity.

By: Vladimir Russo
NBSAP - Angola

THEME IV: APPROPRIATE SANITATION AND SECURE ELIMINATION OF RESIDUES

The principle organ to give orientations of healthy actions all over the world is the concept of promotion of health; environmental conditions being one of the most important factors determine health.

Today, besides the prevention actions and for the assistance considered much important to pointing out more and more on the factors determining health, health doesn't just mean absence of disease, but it means a state of physical, mental and social well being result of an interaction between man and the surrounding environment. (Concept of Health proclaimed by WHO).

Sanitation of the Surrounding

This is the component that seeks the improvement of the conditions that influence the physical surrounding of urban life or they are susceptive of influencing negatively on physical, mental or social well being. (Definition proposal for a committee of experts of WHO).

Its field of action includes the following activities:

- Supplying of water;
- Collect and treatment of water residual;
- Collect and treatment of solid residues;
- Fighting against the vectors;
- Control of soil pollution;
- Hygiene of food products;
- Fighting against the atmospheric pollution;
- Control of the radioactivity;
- Hygiene of work;
- Fighting against noise;
- Hygiene of habitat;
- Urbanization and regional planning;
- Applicable measures to the aerial, marine and terrestrial transports;
- Prevention of accidents;
- Sanitary measures to take in exceptional cases (epidemics, catastrophes, migratory movements, etc.).

Importance of Water for Public Health

Water constitutes an essential element for animal and vegetation life, without an appropriate provisioning of water in quantity and quality, no community can develop sanitary and economically. Its role in the development of the civilizations was always recognized from the antiquity, because even the first human collectivities, they were founded along the courses of water. However, it can be suffering cause and to drive up to death.

WHO estimates that 500 million cases of diarrhea happen a year child with less than five years old in Asia, Africa and Latin America, being mortality rate 3 to 4% of these cases. These diseases are results of poverty, ignorance, bad nutrition and the inexistence of sanitation of appropriate surrounding, particularly in respects to the supply of drinkable water and the disposal of waste.

Importance of the Evacuation of Rubbish for Public Health

The disposal of waste constitutes an important part of sanitation of the surrounding, being more insistently one of the measures recommended for the warranty of the conditions of health for the rural zones. The technical objective of health for evacuation of the human feces is to isolate them immediately in such a way that the infectious agents contained in them cannot reach a new harbor.

The inadequate and unhealthy disposal of infected human waste leads to the contamination of the soil and of the sources of water supply, which could provoke countless diseases. More than 50 infections can be transmitted from one sick person to the other healthy one, through several forms, direct or indirect, involving excretes.

Note that for there to be transmission of a disease there must be the following elements:

- A causing agent or etiologic;
- A reservoir or one of the causing agent's infection;
- A mean of evasion from the reservoir;
- Mean of transmission between the reservoir and the new harbor in potency;
- Means of penetration in the new harbor;
- A receptive harbor.

In the absence of one of these 6 conditions, the propagation of the disease becomes impossible.

Impact of the Presence of Garbage on health of the Environment

The man is forced to live more and more exposed to risks of contamination that we can include in two categories:

a) Biological Pollution: it is characterized by the proliferation of agents pathogenic in organic residues in decomposition. The accelerated rhythm of growth of the populations and its concentration in the great cities don't correspond to the much slowest rhythm of the available means to neutralize this pollution.
b) Chemical and physical pollution: the pollution elements can present high degree of toxicity or of radioactivity, in such a way that it is released to the physical atmosphere. It therefore constitutes a danger for the man and for the animals that justifies the adoption of appropriate measures.

Harmful effects of the Garbage on the Populations and Diseases that they bring

The presence of the spread solid residues in an indiscriminate way is a very frequent fact in Angola. This is verified in the cities of great and medium importance, above all in the outlying neighbourhoods and in non controlled construction zones. The causes are multiple, could include the lack of financial resources and an insufficient conscience taking of the importance of the problems. It assists the accumulation of garbage everywhere, the containers, if there are any get overflowing for indefinite time, creating conditions for proliferation of mice, flies, cockroaches and agents vectors of countless transmissible diseases.

The noxious effects of the solid residues can come under several aspects and second different degrees:

a. The aesthetic aspect: it presents a great inconvenience, not only for the health of the body, as for the national economy as well, the bad smells and the constant pollution they degrade the landscape and they move away the tourism.
b. The inert and insoluble garbage: even if they are not dangerous and toxity, they can come to be. The rubber of the tyres to burn and the risk of contracting the tetanus through the wounds provoked by sharp objects (iron and glasses), they are examples of that.
c. The biodegradable garbage: they are the main ones responsible for the diseases with origin in the biological pollution in particular the domestic garbage. The wandering animals that in them seek its feeding they transmit followed the whole type of parasites and other organisms pathogenic that are the agents of transmission of the contagious diseases.

The garbage of the hospitals and of the slaughterhouses if they are not incinerated and buried they are considered the most noxious among the biological garbage, and the dangers that they represent for the public health they are 10 times more than the one of domestic origin.

Some Diseases	Final destination and elimination of the solid residues
- Diseases transmitted by the dogs: rabies, typhoid fever and leptospirose; - Diseases transmitted by the mice: typhoid fever, dysenteries, plague; - Diseases transmitted by the flies and cockroaches: trachoma, cholera, diarrhoeas, dysenteries.	- Controlled discharge (sanitary embankments); - Compost; - Incineration.

Strategies for the sustainable Health Improvement

- Health for everybody: in agreement with the world strategy of WHO, to reach the point of health for everybody, it is necessary to know the environmental aspects of diseases and the form in which environment management can improve health and to contribute for the accomplishment of the social objectives;
- Cooperation intersectorial: the promotion of health should benefit other sectors that contribute to health, such as the education, food, environment;

- Education for health: the information and the education for health are a powerful vehicle for the knowledge of the risks. Its awareness into populations contributes to the protection improvement of the environment and of sustainable development;
- Primary Health Cares: in 1978 in the Declaration of Soul Ties the concept of Primary Health Cares adopted as a practical way of turning basic health services accessible to individuals, to families, in an acceptable way and with the community's full participation.

By: José Oliveira Vicente,
Director of the Program of Environmental Health of DNSP / MINSA

THEME V: STRATEGY OF POVERTY REDUCTION AND FOOD SECURITY

The agrarian sector has a great social and economical importance. More than 70% of the population live in rural areas and it depends economically on agriculture. The agrarian sector is the best in creating employment in direct or indirect form. The combat of poverty and hunger as well as the reconstruction of the Country and its sustainable development must pass through the launching of agriculture and for the revitalization of other sectors.

Poverty Characteristics in Angola

The poverty is defined as human privacy, that it is characterized by the absence or inadequacy accentuated by dissatisfaction of basic needs, such as food, health, education, shelter, water, sanitation, information, employment etc.

In agreement with recent studies, in Angola the poverty rate is 65%, being 40% in urban areas and 78% in rural areas. These indicators are variable at provincial and regional level.

The war and the internal economical environment are the main causes of poverty and of food insecurity in the Country. The Angolan agriculture was affected strongly for the long years of war, not having been possible to carry out satisfactory its social function.

The access to food is one of the man's fundamental rights. In Angola, for reasons of the conjuncture and structural situation, it has not been possible to assure to all the citizens the accessibility to food in a permanent way, in sufficient amounts and appropriate quality. The Country registered food deficit situation and high poverty level, which is translated in an energetic way, in a low rate of Human Development (IDH).

Poverty Reduction Internal strategy

The Government is to develop actions in the sense of fighting hunger and poverty. In this context, it is in strategy preparations of poverty reduction (SPR) where food security

illustrated as fundamental component. SPR is a phased process, including, inter-sectorial and multi-institutional with perspective of long period guided results, open to partnership and it gives privileges to involvement of the whole society. The same process also constitutes a management instrument of sectorial politics of long-term sustainable integrated development.

Strategy of Food Security

General Objectives	Specific Objectives
- To create the conditions that allow to the whole population to have the opportunity to satisfy its basic needs in terms of food, shelter, health and sanitation to have a worthy life; - to Create the conditions in the sense that the basic food is regularly available, at good time, and to acceptable prices; - to Assure that the vulnerable groups have access to the basic food.	- To increase the production of agriculture-animal husbandly and fishing; - To Increase and to improve the market supply; - To Increase peasants families and fishermen's income; - To Promote the non agricultural income generating activities; - To Assure the regularity and the quality of food; - To Conserve the environment; - To Assure food in case of emergency and to stabilize the market; - To improve the effectiveness of agricultural services; - To promote and articulate strategies of intervention in education, health, communications, water, electricity supply, etc.; - To assure an appropriate use of food.

Principles of Food Security Strategy and Levels of Action

Food Security strategy is under the following fundamental Principles:

- Readiness: Food should be available (national production or import);
- Stability: food has to be available without great temporary or geographical variations;
- Accessibility: the people's capacity to produce or to buy the food in good time and in sufficient amount and appropriate quality;
- Use: the food should have the acceptable quality so that the nutritious values are taken advantage of at most.

So that the strategy has the required impact and reach the objectives needed it should be developed at national, provincial, municipal and family level.

Strategic lines of Food Security in Pastoral-agriculture area and the support to Subsistence Sector

The agrarian and rural development has to be the centre of the politics and strategies of food security and of combating poverty. Most of the Angolan population lives in the rural areas and where the incidence of high poverty and food security are more than in urban areas. The poor in the rural areas have a revenue measured 65% of the basic needs. In phase of that, were defined main strategic lines and the respective actions to implement, namely:

Strategic lines	Actions to Implement
1. Reorganization and juridical adaptation and gradual transformation of institutions in regulation agents and development promotion.	- Preparation and revision of legislation and regulations; - Legislation, regulation and institutional development for access to land; - Ministry Institutional Reforms.
2. Promotion and reactivation of rural trade.	- Rehabilitation of the infrastructures of road network; - Development of the credit; - Simplification of the administrative procedures and reduction of other bureaucratic obstacles.
3. Support to the peasant sector.	- Extension and technology transfer (vulgarization); - agrarian Investigation (agronomy and veterinary); - Production of improved seeds varieties; - veterinary Services; - Micro finances; - Irrigation; - Sectoral programs (cereals, cassava, leguminous, coffee, boviniculture, development of small ruminant, the swinicultura and of the traditional poultry, industrial cultures).
4. Conservation and sustainable management of natural resources.	- Forest Reproduction and protection against erosion; - It Fights against the desertification; - Protection and it fights against the ravines; - Develops continental fishing - Develops beekeeping; - Environmental Popularization.
5. Promotion of private managerial sector.	
6. Development of basical infrastructures.	

Final Note: The achievement of peace and the consequent process of rehabilitation of infrastructures, facilitating free circulation of people and goods, the return of the populations their places of origin, the integration of former-military personnel into productive activities and the administrative and economic reforms taking place now are some of the conditions that will allow the re-launching of agrarian production, with perspective of good food security and a contribution for combating poverty.

Eng.º David Tunga,
MINADER

THEME VI: COMMUNITY ENERGY SAFETY

Angola is the second largest country of SADC, and it is potentially rich in terms of energy. Besides the great ecological diversity due to its geographical position, the Country possesses vast natural resources.

Resources

Angola is the second largest producer in the southern Sahara, after Nigeria, and it exported more than 94% of its production of petroleum in 1990. Besides, Angola has the second largest potential hydroelectricity in southern Sahara.

- Coal Mineral: according to data of 1990, the distribution of the energy supply showed the following:

Type	Percentage
Firewood	38,20%
Vegetation coal	18,25%
Fuel oil	6,87%
Diesel	11,10%
Jet fuel	16,38%
Lpg	2,27%
Gasoline	4,14%
Electricity	2,06%

- Biomass: in terms of the biomass, Angola possesses more than 50% of natural forests and about 235.000 hectares of artificial forests. However, in spite of the apparent abundance of the woody resources most of the resources is inaccessible, since areas densely inhabited lack woody fuel by instead of deforestation of production areas. This is verified mainly in the surrounding areas to the great urban centres, where the coal is consumed in great scale.
- Solar Energy: The total average annual global radiation in Angola is 6000 to 7500 Mj/M2, and most of this radiation is located in the south of the Country. This vast resource is still unexplored due to lack of development of the continent.
- Water Resources: Angola has abundant water resources capable to satisfy the needs of the Country in a predicable future, although to this moment water potentialities has not totally been analyzed. One primary analyzes of our potentialities of the basin Kwanza is 18.000 MW that corresponds o more than 72.000 GWH /year.

It is estimated that water potential total economy is about 150 TW/hr /year. All this potential is not yet explored, once explored to the capacity, produces more than 2,5% of energy/ year equivalent to 3,8 TWH/year, very soon two of the last two groups will enter into service kapanda, that is, more 260 MW between 2006/2007, we will have a production of energy for about 5,8 TWH /year, equivalent to 3,8%.

Electrical Sector

Unfolding	Levels
Production; -Transport; -Distribution and commercialization.	-Northern region; -Central region; -Southern region; -Isolated.
Distribution of Production	Distribution of Energy
- Northern region…..… 93% -Central region….. 5% -Southern region…….... 1,5% -Isolated…….. 0,5%	-The northern system is the most blessed one by God in natural resources, but not all the provincial capitals of the country are beneficiaries of electric service, for example, Ndalatando, Malange, Uíge,

At the moment the water capacity installed in Angola is 450 MW.	Lundas, M´Banza Congo, Bengo, receive good services. But, Luanda as capital of the country has a bad quality of electrical energy distribution. -The covering rate to the electrical service is 20 to 22%. As the rest of the communities (municipal districts, communes) we can affirm that the provisioning is almost nil. -Between the consumable energy using petroleum and firewood they use the resources in a disordered manner.

NB: for the energy safety in Angola it is necessary to reform the sector.

Politics and Safety

With the growing phenomena of the globalization and one world market, in general, and the integration of the country into SADC, in particular, more and more there is a need to put in trust in a quality system, before the implementation of politics that promote the quality of products and services, then the subject became in a component and presupposition which, cannot be diverted for any development strategy.

The option for a market economy, created conditions to begin the implementation of a new institutional legal frame for electrical sector that ended up with the publication of the General Law of Electricity. It was an important step in point of view the transformations which were being introduced into the sector at the level functioning administration of the country and of business activity structure which are being implemented with the approval and publication of some of the expected regulations in the Law.

The projection that the use of electricity has in the modern life, it assumes special relevance in the context of this regulation in the face of vast respective materials to the conception and rules of execution of the installations included in its extensive application field, with view to guarantee not only the people's safety necessity and of the material goods, but also the comfort and the fiability in regarding the use of the installations, though, without forgetting its economical aspects.

Eng.º Serafim,
DNE

PLENARY DISCUSSIONS

There were reactionas for clarification and contributions of the participants to the workshop, where necessary there were consequent explanations/responses from the tutors. Supplementary information was obtained as the participants reacted and the following represent recommendations from the reactions:

1. Issue of rural development should count with an integral answer and interdependence from different sectors, namely, of energy and water, fishing, agriculture, and transport to mention a few;
2. It was noted that there is need for publication in internet of studies and several documentation of scientific value affecting different sectors and institutions;
3. It was also noted that there is no a coordinated system of action involving the Ministries of Transports, Energy and Waters and others, to assist the aspect of agriculture-industry, with view to guarantee and to stimulate the continuity of production and the safety of the products of the field;
4. In spite of the few resources and of the main problems identified from lack of infrastructures and financial means, already is expected the start of the Program of Rural Extension (PRE) and this was identified as a challenge;
5. Although strategies exist, Angola still does not have Energy Politics, so that the first step would be to have a Basic Law, so that the decisions that have been made by the different responsible sectors, without continuity warranty can be curbed. On the other hand, the general rules, the Laws precede the strategies, this presupposes to say that we have jumped stages;
6. Norms do not exist for the electrical sector in Angola therefore we need to normalize the exercise of activities;
7. There exists a system of civil protection related to water resources, but does not exist systems and mechanisms of pre-notice to enable bench marking;
8. There is need to settle down a System of sanitary surveillance and control of water quality;
9. Ad hoc committee has been created which, shortly will pass to permanent, to help the populations in case of natural calamities and an action plan already exists to fight against calamities, droughts and floods;
10. Angola counts with 62% of the amount attributed to the countries of SADC for food security programs, constituting a great opportunity for the development of the sectors involved;
11. It is more than proven the existence of underground waters in Luanda, but it is becoming scarce due to the mistreatments to the freatic sheet;
12. According to the negative experience in terms of creation of canals, the creation of sewages in residences, constitutes the best alternative for the problem than canals represent for the public health;
13. There is in fact, a great need to consolidate and to reinforce the national system of civil protection;
14. There is need to create and to implement a national plan of sewers, water and garbage in all the provincial, without exception;
15. With the increment of agricultural production, it becomes more and more necessary to assure its conservation through the investment in agro-industry and the application of other traditional conservation systems;

16. Relatively to the toxic residues there is no information about the destiny of the same ones, so that there is need to carryout a survey to avoid future problem;
17. The Basic Law of environment doesn't have complimentary regulation and there was national patrons, we should base on the international patrons, as they have been doing, for example, the petroleum;
18. Although the Basic Law of environment foresees some sanctions, therefore, they are not effectively applied for several reasons, some of which the lack of sensibility of the tribunals to take care of environmental aspects, although we recognize that in isolated cases the Government has been applying fines;
19. Information don't exist on the destiny and treatment of the solid residues, although we recognize that the Government is developing an environmental study;
20. Studies show that the services of energy and water are totally nonexistent in a lot of communities of the Country, as for example, in Chinguari, it has 37 villages with about 35 thousand inhabitants all do not have an access to the services of energy and water;
21. Studies developed in Lower Cunene constitute an example of the effective concern with the communities participation management as working method involving the communities in planning processes and implantation of action;
22. It is fundamental that any strategy for poverty reduction should includes the importance of water in the context of health, use of the land, food production, subsistence means, industrial development, planning and environmental protection. Different sectors need to collaborate and to integrate actions to allow the use and effective management of water for poverty reduction.

GROUP DISCUSSIONS AND SUBSEQUENT PLENARY

With the objective of better administration of time and management of the working groups the participants were divided into two working groups. This therefore implied regrouping the themes into two main themes. The following guiding questions were given to aid discussions:

1. Challenges related with the results of the subdivisions (eg resources, technical capacity etc.) key problems;
2. Opportunities for the results of each subdivision, (eg whether there are other initiatives etc relating to the proposed key results;
3. Key stakeholders and their roles in the implementation of the results (leaders, participants, collaborators in the community);
4. How can Angola contribute to the results of the subdivisions at a regional level?

Group 1: Environment and Sustainability, Safety against Natural Accidents, Appropriate Sanitation and Secure Elimination of Residues

Challenges	Available Resources
o Obtaining of information; o Formation of personnel; o Amendment of the legislation; o Creation of infrastructures; o The communities' involvement; o Creation of notice systems; o Education and sensitisation; o To improve the system of basic sanitation; o To promote the creation of structures and mechanisms for control and monitor of the choirs of water for different uses; o Accomplishment of studies about the influences of environmental conditions in public health.	o Insufficient financial resources; o Insufficient human resources and in some cases inexperienced; o Insufficient material resources, lack of actualisation; o Degraded infrastructures and inadequate equipment and not standardized.
Solutions	Opportunities
o - Identification of partnerships; o - Training and formation of personnel according to the real needs of the sector and to the challenges; o - Appropriate and standardized material acquisition; o - Rehabilitation of infrastructures; o - Procurement of funds.	o Existence of the Codex-alimentary; o Existence of environmental projects, such as: PNGA, SINS, NBSAP, BCLME and Fishery craft; o Existence of projects of public health; o Existence of projects of energy and water; o National Commission Action program of civil protection.

Stakeholders and Roles

The process should be led by the Ministries of Health, Urbanization and Environment and Interior, in partnership with the Ministries of Energy and Waters, Ministry of Agriculture, Ministry of Fishing, as well as universities, NGO's, international organisms, social communication, local authorities and community in general.

Contribution of Angola

- A political will demonstrated in agreements at regional and international protocols and conventions/treaties;
- Sustainable management of natural resources;
- Obeying regional and international commitments (such as NEPAD, Rio, WSSD, ODM, Protocol of SADC, etc.);
- Adaptation of the existing legislation to the current concepts;
- Identification of techniques to make possible and influence the implementation of the eight sub-visions.

Group Members

N.º	Name	Institution	Contacts
1.	Júlia Ferreira	MINPESCA - DNP	
2.	Ilda Lucas	MINPESCA - IPA	
3.	Jorge Manuel Davide	MINADER - DNHAER	
4.	Serafim	MINEA - DNE	
5.	João de Deus	MAT - GEPE	
6.	Hartmat Krugmann	Projecto GEF Okavango	
7.	Armindo M. G. da Silva	GABHIC	
8.	Muunzila Jackson Dodão	MINEA - DNE	
9.	Rodrigues	NANGA MINADER	

Group 2: Food Security, Water Resources and Equatative Access to Water.

Equitable access to Water

The group noted that the target group without access to water and sanitation are very vast; therefore one cannot wait for the expansion of the public systems of water, it is urgent to take the following measures:

- Avail resources to isolated systems of underground water for peri-urban and rural zones, around the cities;
- Introduction of regional laboratories for control of water quality, to service municipal and communal levels. The operators would collect samples regularly for the laboratory;
- Payment of rates and tariff should correspond to the type and quality of the rendered services;
- Effective collection of rates and tariffs of water, in particular to the public organs and populations with smaller income;
- Reinforce and extend the activities of GAS (groups of water and sanitation);
- Develop concrete territorial measures for facilitating the expansion of the systems of water, energy and sanitation;
- Approval of “supply reinforcement” projects with a component of sanitation previously developed.

Food Security

- Protection of crops through cautious implementation of both traditional and modern systems of conservation of products;
- Investments in factories of conserving fish, fruits and other perishable products;
- Improvement of irrigation techniques, allowing the best saving and better conservation of quality water;
- Adoption of agricultural practices that don't destroy river beds margins and that do not intensify the erosion of soils and desertification;
- Implementation of an integrated program to support agriculture;
- Development of actions that promotes the effective use of agriculture-pastoral-honey products and others;
- Expansion and implementation of labour intensive construction programs and mini central hydroelectricity, with view to reduce the firewood, coal and thermal resource significantly;
- Move to the alternatives of solar energy and biological energy sources;
- Implementation of conserving energy programs to improve the attendance to the target groups;
- Integration of the safety measures of electrical installations in the Civil Protection National System;
- Integration of the systems north, centre and south, for optimising solar energy to the public in the whole Country.

Water Resources

- Implement the general plans of IWRM to the basins hydrographical priorities;
- To intensify measures of stocktaking of water possibilities (eg hydro-meteorological and hydrometrical);
- Develop general plans such as technical support in water resources management in an equitable way, in national and international basins;
- Regulation of flows to attend to drought and floods phenomena;
- Integrate warning system to water resources in the national system of civil protection;
- Intensify the training of personnel in all the action programs and development;
- Reinforce the interaction among the community participative management, National Council and Regional Council of Waters.

Group Members

No.	Name	Institution
1	Pedro Guilherme João	Faculty of Engineering
2	José Vicente	MINSA
3	Vladimir Ruso	Projecto NOSAP
4	Fernando Cunha	EPAL
5	Adoina Fernandes	GPL - Weep
6	Yola Neto	GPL - Weep
7	Carlos Andrade	GABHIC
8	Filomena Gomes da Silva	INSP

CONCLUSIONS AND RECOMMENDATIONS

- Although the whole preparatory process for the workshop was within a very short period of time (less than 15 days), the workshop has produced satisfactory results whose impact will depend a lot on these same results which should not get diluted by the passing of time. It is therefore fundamental to implementation immediately
- It is a responsibility of all the citizens of the SADC to follow the manual on the Plan of Action, to achieve national and regional balance and Angola has a lot to offer for achievement of the 2015 set goals;
- Particular attention was drawn for the participants work more interactively at all levels;
- The discussions and subsequent resolutions from the workshop will be an integral part of the regional report, but everything will have no implication unless implemented;
- It should also be realised that the gathering in this particular course established a platform that will allow for discussions of issues relating to water in Angola;
- Southern Africa has the eyes in Angola due to its recognized abundance of water sources, so that its responsibilities are increased in relation to the future of the region;
- In 2015 we will be halfway to 2025 for the MDGs and we will be together build our region. GWP and other stakeholders also have an important role to play.

Summarised By: Jean Boroto,
Representative of Global Water Partnership - Southern Africa