

4 ACQUIREMENTS AND TEACHINGS

Initiatives concerning environment protection and natural resources management in Morocco are numerous and all of them come within a perspective which aims to promote, in a direct or indirect way, sustainable development. These initiatives are covering different fields such as : forests and natural surroundings, soils, water, biodiversity, but also activities such as industry, agriculture, and tourism and they are all sustained by national or international programs. This diversity is also observed at the level of category and features of intervening parties.

However, an important part of these initiatives are of local character and are not in keeping with global strategies framework. Thus, these initiatives do not reach the required level so as to really reduce observed deterioration tendencies. Nevertheless, they present the advantage of providing the necessary detachment enabling the elaboration of better adapted environmental strategies that would respond in a more precise manner to the requirements of a sustainable socio-economic development.

Among the first programs implemented, in this context, in Morocco, we can point out those related to forests and watersheds and those related to desertification effects. But it is only after Rio Summit in 1992 that a more global and integrated vision has started making its way, with the implementation of new generation programs taking into consideration socio-economic, natural, technical and political factors in order to face the requirements of rehabilitating damaged surroundings. These programs also introduce in their implementation process an approach based on involving all concerned parties, in particular, beneficiary populations, to all the implementation stages of these initiated projects.

From this experience, Morocco has accumulated a certain number of lessons which would enable him to better face present and future environmental challenges. The process adopted while developing the present NAPE document has taken them into account , whether at the level of analysis stage or at that of real elaboration of the action program. In what follows, we will successively review, a summary of achieved actions or those still in progress in the field of environment protection and which are the basis for the above-mentioned experience, as well as knowledge and teachings taken from it.

4.1 National experience as regard to environment

4.1.1. Water resources

To struggle against water deterioration, a set of actions was started mainly for rehabilitating surface water of the main rivers. Thus, with international support financement (GTZ, French Cooperation, USAID...), a program for struggle against pollution produced by industries and handicraft (tanneries, oil industry, etc) was elaborated for Sebou River. A similar action was also initiated by the Industry Department, with the support of the United Nations Organization for Industrial Development in favor of Tensifet and Oum Errabia rivers. For these basins, internal audits and awareness and information campaigns for industrialists in the textile sector (use of coloring and water) and for tanning (use of chromium) have been organized. The results served to come up with a plan of action for each of these two regions.

Efforts were also made to choose sites for public waste and come up with studies on their impact on environment. Accidental pollution has benefitted from the achievement of inventories on black issues and from proposed solutions, which some of them were applied, for instance improving the road between Rabat and Meknes, at the bridge on Baht river.

In relation with erosion impact on water quality, a surface of 3.500 ha representing 2% of total surface of watersheds has been processed. This action comes within a large-scale program meant to develop watersheds, which was implemented in 1995. Its aim is to develop 3 million ha in a period of 4 years.

As far as access to drinking water in rural areas is concerned, the State has initiated in 1994, a very ambitious program (PAGER) that aims to generalize access to drinking water in rural areas within a period of 10 years²². In rural areas, ONEP and distribution agencies have created a rehabilitation network program for drinking water in order to limit losing water. Finally, Regional Offices for Agricultural Development (ORMVA) have also planned some actions for rationalizing irrigation in keeping with the Program for Improving Large Irrigation (PAGI)

As far as water resources management is regarded, Morocco has instituted , within Law 10/95, water agencies for basins, which, according to their prerogatives and their status as a public institution, would be able to efficiently contribute to water resources protection.

4.1.2. Soil resources

Being aware of problems related to soil, Morocco has led different actions aiming to protect this fundamental resource. Thus, within the action for struggling against erosion, some works were undertaken to preserve soils and have concerned 440.000 ha. Furthermore, 28.900 ha in the coastal area and 690 ha in the continental one have benefitted from dunes stabilization in order to fight sand dune²³.

²² Program for Supplying Drinking Water to Rural Populations (PAGER), General Direction of Hydraulics, 1994.

²³ Report on state of environment in Morocco, Environment Department, 2001.

Reforestation is the subject of a program led par the State since many years, it has reached 500.000 ha in 1996 - 1997 compain²⁴.

Plans and strategies have also been elaborated since the 1980's to preserve soils. We can mention Plan of Action for Reforestation (1970), Plan of Action for Struggle against Desertification (1986), Plan of Action for Watersheds Management (1990), Plan of Action for Irrigation (1993) and Guiding Plan for Reforestation.

Lately, Morocco has initiated a new generation of programs based on an integrated and global vision as well as on a participative approach for soils and watersheds protection. The National Action Program for Struggle against Desertification (June 2001) and the National Plan for Watersheds Management come within this category. These two plans are briefly described hereafter :

- ▶ The National Plan for Watersheds Management is implemented with the support of FAO, UNDP and World Bank. It is about 2 main points :
 - A sector related to soils and infrastructures protection through reforestation and setting up of appropriate legal tools.
 - " Integrated Development " sector within a participative approach and a vision of backward and forward solidarity.

This plan is about important geographical zones of intervenion. It concerns watersheds of 24 important dams. The first program concerns the Basins of Lakhdar, Msoun, and Ouergha. For Lakhdar, the World Bank had provided financement with 55 millions dhs.

- ▶ National Action Program for Struggle against Desertification (PAN), adopted by the Government in June 2001, in keeping with the Moroccan commitment related to United Nations Convention to combat Desertification (CCD). This program aims at fighting desertification within a participative and integrated approach.

4.1.3. Air and energies

Several programs and studies aiming to reinforce the knowledges of air state in Morocco and struggle against atmospheric pollution have been implemented. Others are still in progress, among which we can mention study on air quality in Rabat, " Grand Casablanca ", and Salé, the epidemiological study of Casa-Airpol and the project for measuring and following-up the thickness of the ozone layer at Casablanca vertical line. Moreover, the PDES has also planned for supervision programs, particularly in the cities of Safi, El Jadida and Sidi Kacem. According to the clauses of the Montreal Protocol, a National Program for CFC Restructuring has been elaborated. This project aims at supporting industrials concerned by CFC, and at replacing CFC with other products which will not damage ozone layers.

²⁴ National Plan for Forests, Ministry in charge of Water and Forests.

The policy followed by the Ministry of Transport and Merchant Marine as regard to environment protection revolves around the main following points :

- ▶ Rejuvenation of cars on roads, mainly through the establishment of legal and inciting measures for cars and trucks renewal (optimal pricing, adequate tax system).
- ▶ Pursuing efforts aiming at making it necessary to equip vehicles for public transport, whether for travelers or goods, with material for road security such as speed bumps, speed limiter, and speed tachograph.
- ▶ Reinforcing vehicles control to promote their maintenance.
- ▶ Participating to institute some fiscal incitments for those who adopt devices for reducing emissions, such as catalytic converters for petrol engines, and particles traps for diesel engines.

Developing rail transport, train adaptability to using electric energy which is of weak consumption, make rail transport less polluting and its emission in gas of greenhouse effect very limited.

Solar energy is becoming an important component in rural electrification programs (lighting, pumping, etc) as well as in other applications such as telecommunication, household uses, mainly for water heater²⁵. Morocco also has an important wind potential (medium wind speed is of 5.3 m/s in 90% of the territory), which encourages building parks for producing electricity, the most important among them is Abdelkhalek Torres Park in Tetouan (50 MW). For its part, hydraulic energy is the subject of several projects, particularly concerning small hydraulic stations²⁶.

Finally, firewood constitutes an important energizing sector due to the impact this kind of energy has on forests. In this context, the Environment Department has elaborated, within the Program of Support to Environment, sustained by the United Nations Development Program, a program for diffusing appropriated energies (in particular improved traditional furnaces) and for economizing energy.

4.1.4 Natural habitat

4.1.4.1. Biodiversity

In terms of protecting biodiversity, Morocco has signed the following conventions:

- International Convention on Humid Zones (RAMSAR)
- Convention on International Trade of Endangered Species, CITES
- Convention on Migratory Species, CMS

²⁵ Component of the Project Environmental Support, developed with United Nations Development Program UNDP and Energy Department.

²⁶ See identifying studies and those of sites for micro hydraulic stations created by CDER since 1990 in High Atlas and Middle Atlas regions.

- Protocol emanating from Barcelona Convention on Marine Pollution
- Convention on Biological diversity

Morocco adherence to these conventions resulted in the realization of a set of actions related to species protection through the creation of protected air and inventory of sites having a biological and ecological interest (SIBE). At present time, parks (Dahir of 1934) and created reserves cover 540.000 ha. Reintroducing wide fauna species in protected areas as well as protecting others through legal texts are also part of undertaken measures in order to save the natural patrimony which plays an important ecological role. Other actions, with beneficial effects on biodiversity are about eco-tourism development and elaborating programs for ecological development . Among the most important programs started at present time, we can mention:

- GEF program for developing protected areas
- Medwetcoast Program dealing mainly with north parts of Morocco.
- Program for conserving Tazekka natural resources: program financed by FAO for the protection of Tazekka Park)
- Transhumance Project for Ouarzazate region
- Morocco-Germany cooperation Project for natural resources management (AGRN) concerned with Toubkal, Tazekka and Souss parks.

4.1.4.2. Fragile ecosystems

Coastline: Dealing with coastline protection, many projects have been realized, others are still in progress. Among these projects, we can mention : Project for coastline preservation led by the Environment Department, the National Action Plan for Coastline Environment Protection (PANPEL) and study for supervising chemical pollution in the coastline through heavy metals and pesticides.

Oasis: Ministry of Agriculture and Rural Development has elaborated a national action plan for restructuring and developing palm groves, having as objectives :

- Renewing palm groves by using noble varieties and increasing the number of varieties tolerating Bayoud
- Improving production systems
- Valorizing production and improving trade circuits

Implementing this plan relies on certain inciting measures granted to farmers through the Agricultural Investment Code

Unfortunately, the report on this first phase of the plan has revealed results somehow modest, in particular, concerning plantations distribution (243.000 plantations in 1988-1998)

The coming actions are in keeping with the National Action Program for struggle against Desertification, adopted par the State in 2001.

Mountains: Realization in the context of mountain eco-systems protection, has mainly concerned soil preservation and struggle against deforestation.

It is necessary to point out that the National Debate on Land-use management has given a particular importance to the question of development in mountain zones. In its recommendations, it has insisted on the necessity of an integrated vision of this development taking into account environmental specificities of these zones. It has particularly recommended the elaboration of a national strategy for integrating mountains in the regional and national economy. Following those recommendations, the Department of Spatial Planning has prepared specific study terms for elaborating development plans in certain mountain zones, judged important .

4.1.4.3. Forests

Since 1970, the National Plan for Reforestation intended to reforest 662.000 ha in 30 years (470.000 ha for production, 185.000 for protection and 7.000 at rest), with a rythm of 22.000 ha per year. In 1989, Considering the slowness of the operation, it was decided to intensify the process to 30.000 ha per year. In 2000, this rythm has not been reached.

Following the report on policies and previous programs lack of sufficient interest in forest management and recommendations of the United Nations Conference on Environment and Development (Rio de Janeiro, 1992), Morocco has developed a reflection that led to the organization of the National Symposium on Forests, and consequently to recommending the elaboration of a National Forest Plan. This program constitutes the basis for managing and protecting forest patrimony in coming years.

At the same time several programs are in progress thanks to financements, result of international cooperation. We can mention, for instance, MEDA program, with its component in Chefchaouen, concerned with developing forest and forests-related zones, and its component "rural integrated development" managed by Direction of Agricultural development.

4.1.5 Environment in urban and urban-related areas

4.1.5.1. Urbanism and environment

Being aware of the extent reached by urban environment deterioration, Morocco is making a great effort as regard to urban planning, in particular by providing centres and cities with documents concerning urbanism. Thus, between 1995 and 1999, and in conformity with Law 90-12 about urbanism, twelve SDAU have been approved and eleven on their way to be approved, which makes 45% of urban zones covered by this kind of documents at the national scale. Moreover, between 1993 and 1998, 45 urban development plans have been realized. At present time, about hundred others are on their way to be approved or to be prepared. .

4.1.5.2. Solid Waste

Many townships have conceded the collect and processing of their waste to the private sector, as it is exactly the case in Fez-medina, Essaouira, and in townships of Agdal and Hay Riad (in Rabat). In the same context, the Wilaya of Rabat-Salé delegated the management of Akreuch dumping to a private company. Moreover, a project for elaborating a master plan

for drainage of solid waste in the Wilaya of Rabat-Salé is in progress (collecting, cleaning, recovery and elimination). On the other hand, many other projects related to the management of solid waste have been implemented in partnership with international organizations such as the World Bank, USAID, or within the framework of bilateral cooperation with countries such as Japan, who has helped the Environment Department to elaborate the national strategy for solid wastes management, as well as with French, German and Danish governments.

4.1.5.3 Drainage of liquids and sanitation

As far as planning is concerned, the Direction of Water and Drainage has elaborated the national Plan of Liquid Drainage (SNAL). However, implementing this plan faces financial and institutional constraints. On the financial level, the cost for purifying waste waters is about 6 to 10 dhs / m³, which is beyond what townships can afford and beyond the possibilities of what can beneficiaries take in charge. The question is then to identify adequate financial and institutional arrangements to face this cost taking into consideration the three concerned parties, that is, the State, townships and the citizen. On the institutional level, arrangements to be made have to take account of aspects related to systems functioning and maintenance²⁷ (network and purification) as well as needs of costs recovery. To resolve all these issues depends on a political decision which has not yet been taken.

This hazy situation, result of this delay, penalizes today drainage projects realization, namely, those of many centers that ONEP has introduced in its drainage program within bilateral financing (namely KfW)²⁸.

4.2. Achievements

4.2.1. Reinforcing legal and institutional aspects

■ Institutional setting

On the institutional level, the environmental dimension has, certainly been present, in government organizational charts since 1972, but more as an observer than an intervening party. Since then, considerable progress has been made as regard to accepting and reinforcing the institutional setting of environmental management. The interministerial importance of environment is reinforced by the creation of the National Council for Environment (CNE) and the catalyst role of the Environment Department which are now a reality.

The fact that a ministerial department in charge of environment has been created in 1995, represents actually a major political turning point in dealing with environmental problems in Morocco. It has allowed the environment question to be part of the government meeting agenda, and has encouraged the starting of an awareness process against more preoccupying threats that make us feel consequences of environment deterioration on economic development and populations living conditions.

²⁷ More than 50 small and medium purifying stations for waste waters have been created during the last twenty years. However, most of these stations are not working.

²⁸ ONEP action as regard to environment protection, National Office for Drinking Water (ONEP).

The interdepartmental dimension of environment has been reinforced due to the restructuring of the National Council for Environment (CNE) realized in 1995, which makes of this body the main place for coordinating policies in the country. This meeting, point of dialogue and coordination, was afterwards reinforced by the creation of its regional and provincial extensions, that is regional councils for environment (CRE) and provincial councils for environment (CPE).

In spite of all this progress, the present institutional legal setting, requires, for a better efficiency, a consequent reinforcement, a rationalization of complex relationships between different departments, with their overlapped responsibilities and sufficient multidisciplinary staff increase to give more importance to Environment Department restructuring and allow to reach objectives that were assigned to it.

■ Legal status

On the legal level, the faced problems are complex and multiple. Among the constraints hindering a good application of laws, come first of all the multiplicity of texts and the gap between texts and decrees of application. There are also some contradictions between certain texts due, in most cases, to power conflicts between the different managing structures as well as to the absence coordination between actions . This causes a problem of inadequacy between sectorial policies and sometimes their being inadapted to the global context of natural resources and environment management. Finally, the accomplished diagnosis has also clearly shown the absence of inciting measures in texts, besides a plethora of measures supposed to be repressive but they are no more, because of lack of updating at the level of fines, which are most of the time, derisory.

Moreover, the present legal status does not take into account today's environmental challenges. In fact, even if there is an important number of laws and decrees dealing with the management of environment, they are most of the time not adapted, because they have been issued at the protectorate time. They are in most cases based on an old concept of environment, which does not take account of new environmental damages signs. Another expression of the decayed aspect of our laws pertaining to environment is the absence of link between environmental problems and development activities, necessary for a perspective of sustainable development.

Conscious of deficiency in environmental legislation, the Environment Department has elaborated a legal strategy aiming at endowing the country with a coherent and appropriate legal status. The objectives of this strategy consist in:

- Establishing a legal status reconciling environment protection requirements and those of sustainable development.
- Assuring legal consistency of texts in effect, dealing with environment and their adaptation to technology evolution and to the state of the receiving surroundings.
- To guarantee a harmony between the national environmental legislation and commitments taken by Morocco at the regional and international levels.

To reach these objectives, drafts for legal texts have been elaborated. These texts aim at updating and completing the laws and making them in harmony with Morocco international commitments. Among these drafts, some were already sent to the Government General Secretariat (SGG) for study and adoption.

Drafts of texts transmitted to the SGG:

- Bill related to struggle against pollution of the atmosphere and its decree of application;
- Bill related to environment protection and enhancement
- Bill related to waste management and their elimination
- Bill related to research on impact on environment and its decree of application
- Project of decree enacting exact measures related to plastic bags production and use.
- Project of order in pursuance of decree NO 2-95-717 dated 10th Rajab 1412 (November 22nd, 1996) related to preparation and struggle against accidental sea pollution.

Drafts of texts to be finalized

- AforeBill on development and coastline protection
- Creating a national fund for environment protection
- Standards of dumping in water
- Setting of auto-control procedures
- Bill revising Dahir dated 15th August, 1914 concerning slums, inconvenient and dangerous settlements legislature, and its two texts of application
- Revision of the decree related to oil products features
- Revision of the text organizing CNE, CRE, CPE,
- Nuclear legislation

This legal strategy comes to reinforce substantial achievements reached in the last five years, which can be seen through promulgation and publication of 40 laws and decrees regarding different aspects of the environmental issue. We have the right to hope that the implementation of legal strategy would be speed up, in the light of noticed dynamics since the coming into power of alternation government. It actually announces a positive evolution able to attenuate antagonisms and open the way to a harmony and a complementarity within the government.

4.2.2. *Environment conditions*

From its definition, environment includes all the physical and biological ecosystem components (water, air, soil, fauna, flora and population), and their inter-relationship with socio-economic activities (agriculture, industry, energy, transport, tourism, health...). One of the main constraints facing environment management in Morocco is exactly the lack of information and reliable data, covering all these environment components, and which are to be provided in appropriate time to serve as indicators helping to take decisions.

This made it necessary to gradually establish a system to observe and follow-up the different aspects, allowing an adequate and continuous environment characterization and to establish environmental indicators, allowing a reliable assessment of environment conditions and providing a quantifiable basis to take decisions regarding management of environment. To this effect, initiatives were taken to reinforce necessary human and technological means and to guarantee, whether at the production level or at that of collecting and processing, the synergy searched for between the various producers and data managers.

a) Supervision networks

At present time, several networks to supervise quality of continental and sea waters, exist in Morocco, among them the following ones:

- > Network for supervising each watersheds under General Direction of Hydraulics and Environment Department control
- > Network for supervising waters destined for human consumption, under the National Office for Drinking Water (ONEP) control
- > Network for supervising biological quality, under the Health Ministry control
- > Network for supervising waters for irrigation and soils quality under Rural Engineering Direction control.
- > Network for supervising sea waters quality under the control of Harbors Direction, Health Ministry, Environment Department and National Institute for Piscatorial Researches.

As far as air quality and radioactive waste emanations are concerned, there are some achievements which remain at the minimum required compared to the good knowledge of all aspects. Among the achievements, we can mention the establishment of follow-up and supervision structures:

- > Air Department of the National Laboratory for Environment (Environment Department) which covers certain zones in the context of studies localized in time and space as those of Rabat, Casablanca, and Marrakech
- > LPEE air laboratory which makes some ad hoc studies
- > CNESTEN and National Center for Radioprotection laboratory dealing with assessment, follow-up and control of radioactive emanations and nuclear waste.

We, therefore, record that the existing networks are not exhaustive nor complete. As regard to exhaustiveness, other aspects such as noise pollution are not followed, till today, by any administrative structure. As far as network performance is concerned, most of them are only partially operational, and in any case, they are conceived and managed so that they can respond to sectorial needs pertaining to follow up and planning. Thus, they do not allow to assure an integrated supervision able to satisfy information, data, and environmental indicators requirements.

b) Sustainable development network

The sustainable development network (RDD) was created in 1995 with the support of United Nations Population Fund, in accordance with Program Capacity 21 recommendations. This network, led by Environment Department is open to all involved socio-economic parties: administrations, enterprises, NGO, local collectivities, and universities. They operate to facilitate exchange and access to information and data related to environment and sustainable development. A second RDD objective consists in elaborating and developing sustainable development indicators and promoting their use by involved parties.

Throughout seminars, reflection and training workshops, RDD has contributed in a significant way to strengthen networks between involved parties. It has put information users and suppliers in touch with each others and has encouraged exchange and diffusion of information pertaining to sustainable human development and implementation process of Agenda 21.

RDD has played its role of a catalyst as far as making information exchange and carrying out the participative approach, more easier, is concerned. It has also allowed to reinforce the capacities of some parties involved in sustainable development. To assure that RDD be perennial, an information and data system on environment has been set up. It represents the crowning achievement of all the efforts made regarding organization and coordination of information torrents, necessary to environment apprehension in all its aspects.

c) Information system and Environment data

we have already underlined that the Moroccan information system on environment reveals an important richness in studies and data on certain components of environment. The latter are, however, dispersed not really accessible and most of the time not well coordinated, and thus not compatible with an integrated vision, allowing their being organized in reliable interconnected databases, to serve different users and operators.

The multitude and partitioning of services producing information and the lack of mechanisms and coordinating structures are at the origin of energies dispersion and double work. It is exactly in order to make up for all these insufficiencies that Environment Department introduced the concept of Environment Information System and Data (SIDE). Its supply and implementation will be assured, within the frame of a partnership, by the main ministerial departments which are generating data concerning environment.

The setting up of SIDE, initiated in the beginning of 1998, as the hard core for Morocco National Observatory for Environment (ONEM), is well advanced. The Environment Department, in partnership with the main departments generating information about environment, organized within " Network of participating parties partners in information and data on Environment (RAPIDE), which is to replace the RDD, are in charge of SIDE functioning. Executives from these departments were identified and have undergone necessary training, enabling them, on the one hand, to participate to the conception of SIDE structure, and on the other hand, to assure its management once it is put into effect. SIDE setting up has already started giving its fruits with the first report made on the state of environment in Morocco (REEM) and a series of regional environmental SIG

d) Environmental indicators

Environmental indicators are holding an important position in environment management. They allow all involved parties to integrate environment data in their decisions on quantified objective bases. Environmental indicators are also necessary for realizing systematic and contradictory assessments on the state of environment, as well as the introduction of an environmental "accounting" in public projects

Environmental indicators set by Environment Department have been structured around the pattern: "state - pressure - answer" adopted by OECD.

e) State of environment

One of the missions assigned to Environment Department is to set up the national, regional and local state of environment on a periodic basis in order to assess the performances of adopted environmental policies. In this context, the Department has initiated in 1995, the achievement of a series of regional and local environmental monographs. These monographs, some of them are finished and others are still in progress²⁹, allow to set up a reference in dealing with environment. They were also the basis for making the report on state of environment in Morocco (REEM) in 2001.

4.2.3. Partnership to take environment in charge

The progress the world is undergoing at the beginning of the 21st century, makes it imperative to carry out deep reforms and changes in dealing with the problems of the society. In order to manage these changes, Morocco should be endowed with new capacities, and especially to find a new way of doing things and make them done by others. From here comes the importance of first intersectorial and multidisciplinary consulting stages employed by Environment Department since beginning 1990's. It is indeed necessary if we want to change attitudes and mentalities, to reach a consensus between the different components of the government, between the latter and the civil society and within the civil society itself, on the fact that change is a necessity.

The most important proof of Environment Department openness to its socio-economic environment is the achievement, with the interested enterprises support, of environmental audits of some industrial units on the line Casablanca-Mohammedia. Results of these audits have been discussed, thereafter, with the concerned enterprises. An interesting debate took place. It has allowed to set up guiding lines of a consensual action program so as to control and reduce identified sources of pollution and define conceptual bases to set up a Cleaning-up Fund (FODEP) which has actually been created, with the financial support of German cooperation. Partnership conventions have, thus, been negotiated with industrialists so as to implement defined actions. It is mainly about signing the convention with cement sector, according to which the latter undertook to put into effect environment protection measures.

²⁹ Economic regions monographs as follows : North Center, North West, Center, Oriental (between 1994 and 2002)
Local environmental monographs of : Marrakech, Tetouan, Safi, Essaouira and Rabat (Environment Department, between 1995 and 1998)

Another form of partnership with the private sector is illustrated in setting up the Moroccan Centre for Clean Production (CMPP) in 1999, which is in keeping with the logic of promoting sustainable ecological development. Creating this centre, which is an initiative of Commerce and Industry Department, in partnership with the General Confederation of Moroccan Enterprises (CGEM), and the support of Switzerland and the United Nations Organization for Industrial Development (UNOID), will contribute to promoting clean technologies use and preventing pollution from its source. The setting up of this centre represent an important lever enabling to respond to quality requirements and standards of our commercial partners and to improve export sectors competitiveness.

Environment Department willingness to have a partnership with the main involved parties which have an impact on the state of environment, has also been expressed towards local collectivities. The projects "clean cities" and "clean beaches" are concrete examples of actions meant to preserve living conditions, lead in close collaboration with entities which have important prerogatives as regard to environment protection and territory development.

4.2.4. Strategy for communication and increasing public awareness on environmental issues

Knowing that any action for protecting environment depends on the awareness of the different involved parties and socio-economic partners concerned, the Environment Department has started an educational action to make people aware of risks the environment in our country is undergoing. This action is aiming to make people conscious in order to establish ethics and behaviors favorable to the protection of environment. It has been led at the begining in the form of campaigns and has been concentrated on populations having priority: decision-makers whether public or private, elected representatives, medias, women, children and rural populations. Relying on the associative movement as well as on public and private medias, these campaigns intended to encourage the idea of a real collective responsibility and transforming individual attitudes and behaviors, in order to make of the citizen a positif element in protecting and improving environment.

In this context, many programs for increasing public awareness having as target schools, universities and accommodation houses for young people, have been carried out. The implementation of these programs has shown the interest in institutionalizing them in school courses at primary, secondary and high level. Thus, the Environment Department, in collaboration with the National Education Ministry, has elaborated a program for environmental education in primary and secondary schools (Education Project V) as well as modules for teaching environment rights in universities.

Other programs, intended for media representatives, were also organized on various occasions such as Arab and International days for environment or the international day for food and population. Efforts to increase public awareness towards the environmental issue have been reinforced with regular programs sponsored by enterprises, and broadcasted by national Tv channels.

4.2.5. International cooperation

Environmental activities have benefitted in Morocco from the support of bilateral and multilateral cooperation. On the bilateral level, Germany sustained the project for environment management focused on reinforcing the institutional and legal aspects. This project includes actions for training and increasing public awareness as well as developing the capacities of Morocco National Laboratory for Environment. The German cooperation has also, with the support of KfW, created the Fund for Industrial Cleaning-up (FODEP), an inciting tool for enterprises willing to invest in struggle against industrial pollution. On its side, USAID has helped Morocco implement a number of leader projects intended to promote an integrated management of hydrous resources. In the same way, The Japanese International Cooperation Agency (JICA) has granted a substantial assistance to Morocco to elaborate its national guidelines as regard to management of solid waste. Finally, France has supported programs in the field of environmental training and sanitation.

On the multilateral level, the World Bank has already approved in 1994, a loan in order to reinforce the country's institutional and legal setting concerning environmental management (PGE). UNPF, UNDP and UNESCO support has been essential to Environment Department in elaborating its national strategy for environment and lasting development as well as for elaborating the present National Action Plan for Environment, and for setting up Morocco National Observatory for Environment. UNPE has on its side helped the Moroccan government to elaborate its national strategy to eliminate substances threatening the ozone layer, climatic changes project and national strategy for biodiversity protection.

Taking into account the cross-border character of certain environmental problems, international cooperation support to Morocco was expressed through an extended approach to the regional plan. The latter is most of the time in keeping with the implementation of international conventions such as Barcelona Convention under PAM program or the convention on climatic changes dealt with in the Maghreb Project RAB/94/G31, benefitting from UNDP financement. Sometimes, it is also taken in charge by bilateral cooperation, as it is the case for PRIDE program, sponsored by United States, and intended for setting up a strategy for sustainable development for the Mediterranean zone / Near- East .

Moreover, Morocco adheres to more than 60 international and regional conventions related to environment. Despite of Moroccan authorities good will, the commitments at the level of these legal instruments can not be totally respected in the absence of a consequent support as regard to capacitie building, technology transfer and integrating their standardized content in internal legal device.

It is clear that if international cooperation achievements should be reinforced by the rigorous application of respective commitments undertaken at the different conventions, the latter can not be possible unless there is a support from developed countries which are part of them. Finalizing NAPE process constitutes an important opportunity to maintain sustained consultations with the community of financial backers, as regard to new decisive orientations which Morocco considers taking in order to realize, throughout this plan, coherent programs pertaining to environmental management and natural resources.

4.3. Teachings and perspectives

It is evident from the conclusions of Morocco state of environment diagnosis and the report on achievements, that the state of environment deterioration is real and that it progresses dangerously towards other levels of irreversible deterioration for certain ecosystems components. Anthropogenic pressure is often the most determining variable, the origin of noticed attacks on environment. It is generally subject to a set of conditions, among them:

- 1• The legal setting (need of harmonization between certain texts)
- 2• The institutional relationships between the involved parties (necessity of an institutional arrangement allowing a concerted and participating management of the environment issue;
- 3• The economic constraints (rehabilitation of capital resources, improving production and productivity);
- 4• At the level of environmental awareness at all stages (increasing awareness of civil society and concerned parties); and
- 5• Consistency of important sectoral policies which orient the decisions of all partners (looking for synergy between different parties and partners).

If important achievements have been recorded, they remain far from the minimum required to control galloping desertification, to make steady water and air pollution, and protect populations against risks of technological and natural accidents more frequent. Thus, additional efforts are still needed and should necessarily be made in each of the different components of environment, in order to create a context more favorable to the desired changes.

Lessons drawn from previous experiences suggest that in order to reach the goal, these efforts should be integrated, made in consistency and conceived according to a participating and reiterated process, taking advantage from all the concerned parties involvement. Capitalizing these teachings has led public authorities to begin a planning process inspired from these principles, which would lead to the definition of appropriate actions in order to protect environment and preserve populations living standards. These actions are regrouped within a coherent and integrated frame : NAPE.

NAPE is constituted from a set of supporting measures and mitigation actions of attacks to the integrity of natural surroundings and populations living standards. It is in keeping with ESDP logic and makes of it the environmental dimension. NAPE is also in keeping with the recommendations of the National Strategy for Environment and Sustainable Development which strongly recommend a real change in the traditional way of managing environment. It is not mainly a question of protecting natural resources and struggling against pollution and nuisance. Through a dynamic approach, there is a way to prevent these damages since the beginning, and to look for a way to include the costs for struggle against pollution and nuisances in the budget, in order to orient the concerned parties choice towards programs that are not expensive for communities.