Morocco Case Study Analysis of National Strategies for Sustainable Development

This document is one of 19 country case studies that form the knowledge base for a synthesis report entitled "National Strategies for Sustainable Development: Challenges, Approaches, and Innovations Based on a 19-country Analysis." The synthesis report and country case studies are available electronically at:

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These case studies are made publicly available to add to the national sustainable development strategy knowledge base. The project's research partners accept responsibility for any inaccuracies or omissions. The views expressed in this working paper do not necessarily represent the views of the funding partners.

The research partners welcome your comments on this country case study. Please e-mail comments to Darren Swanson at dswanson@iisd.ca.

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Prepared by:
Mireia Tarradell
Environmental Policy Research Centre
Freie Universität Berlin
Ihnestr. 22, 14195 Berlin, Germany
E-mail: tarradell@glogov.org
http://www.fu-berlin.de/ffu

1 Introduction: Morocco Description

Morocco lies at the north-western part of the African continent bordered, to the north, by the Mediterranean Sea, to the west by the Atlantic Ocean, to the east by Algeria, and to the south and south-east by Mauritania. Rabat is the capital city, and the country has 37 provinces. As part of a 1997 decentralization law 16 new regions have been created. Morocco's long struggle for independence from France ended in 1956. During the late 1970s, Morocco virtually annexed Western Sahara, but final resolution on the status of the territory remains unresolved (CIA World Fact Book 2003).

Economy

Morocco faces problems typical of developing countries such as restraining government spending, reducing constraints on private activity and foreign trade, and achieving sustainable economic growth. The GDP and GDP per capita are, respectively, \$121.8 billion and \$3,900 (both 2002 est.), which ranks this country of Medium Human Development. The Human Development Index (HDI) value for 2001 was 0.606 and it ranked 126th of 175 countries. Following structural adjustment programs (supported by IMF, World Bank and Paris Club) the dirham, the country's currency, is now fully convertible. Agriculture is a key sector in providing employment (accounts 15-21% of GDP) and it is very vulnerable to impacts of (global) climate change, such as, precipitation change and related droughts. In 2000, services accounted 52% and industry 33 % of total GDP (phosphate rock mining and processing, food processing, leather goods, textiles, construction, tourism). The country has an unemployment rate of 19 % (2002 est.) and challenges for the future include servicing the external debt, modernizing the industrial sector, preparing economy for freer trade with the EU and US, improving education and attracting foreign investment to boost Moroccan living standards (CIA World Fact Book 2003, Earth Council 1998).

Society

Morocco has a population of 31,689,265 (July 2003 est.) and a total fertility rate of 3.5. Despite the fact that 51 % of couples is using some form of contraception, population is expected to double by 2032. Gradual political reforms in the 1990s resulted in the establishment of a bicameral legislature in 1997. The Moroccan Kingdom is a constitutional monarchy, engaged in democratic processes (until recently was an authoritarian state), and is generally seen as an Islamic voice of moderation. The chief of state is King Mohamed VI (came to power in 1999) and the head of government is Prime Minister Driss Jettou who was appointed by the monarch in 2002 after legislative elections. The legislative branch consists of a bicameral Parliament with an upper house or Chamber of Counselors (270 seats, members elected indirectly by local councils, professional associations, and labor syndicates for nine-year terms) and a lower house of Chamber of Representatives (325 seats; members elected by popular vote for five-year terms). The Supreme Court is the judicial branch with judges appointed on the recommendation of the Supreme Council of the Judiciary, presided over by the monarch. Its legal system is based on Islamic law and French and Spanish civil law system (CIA World Fact Book 2003).

Environment

Extending in an area of 446,550 sq km and with a coastline of 1,835 km, Morocco is a mountainous country, subject to both marine and Saharan influences. The increase in population has led to an increase of GDP, which has been accompanied by the degradation of the environment (accentuated by inadequate resource management). Indeed, the annual cost of environmental damage has been estimated at nearly eight percent of Morocco's GDP (UNDP 2002c). Morocco is a country that has scarce natural resources, especially arable land and water, and in recent years intensive agricultural production, large-scale irrigation schemes, industrialization and urbanization have been creating serious problems. The country has faced severe problems of air, water and soil pollution, environmental health problems, deforestation and soil erosion. The country is very vulnerable regarding impacts of (global) climate change. Also, natural hazards such as earthquakes and droughts occur periodically. The CO₂ emissions were for 1998 of 1.2 metric tons per capita (UNDESA 1997b, UNDP 1999, UN 2002, WB 2003).

This study is mainly based on governmental documentation and UN reports (written by the government themselves) but also contains an important amount of information from secondary sources such as the UNDP's Capacity 21 programme reports or the Moroccan Profile on Capacities for the Environment from the book Capacity Building in National Environmental Policy (Weidner and Jänicke eds.).

Table 1: Profile by Selected Indicators

Indicator	Value
Human Development Index (and ranking) – 2001	0.606 (126 th)
Human Poverty Index (and ranking) – 2001	35.2% (56 th)
Environmental Sustainability Index (and ranking)— 2002	49.1 (73 rd)
GHG Emissions- 1998	1.2. Metric tons per capita of CO ₂
GDP and GDP per capita – 2002	US\$21.8 billion and US\$3,900

Source: CIA World Fact Book 2003, UNDP 2003, WB 2003

2 Content of the National Sustainable Development Strategy

The Morocco's approach to SD is mainly environmental. The two main strategic documents are the *National Strategy for the Protection of the Environment and SD* (with French acronym, SNPEDD) from 1995 and the *National Plan of Action for the Environment* (with French acronym, PANE) of 1998.

Strategy Content

The SNPEDD's main objective is the integration and strengthening of environmental concerns in economic development activities. Its main working areas are: water, waste, air, soil, and urban and coastal environment; all in relation to both sustainable

management and pollution. It proposes a group of quality objectives and asks for the establishment of target levels for both the long and mid-term. It outlines three main principles which are: a) strengthening the legal framework and institutional capacities; b) end-of-pipe approach; c) policy integration. Integration shall occur mainly by using the Cost-Benefit-Analysis method, that is, the comparison between a development policy which would take into account quality objectives and the necessary investment, and a development policy that would ignore environmental problems shows that medium and long-term profitability of environmental protection measures are higher. A mid and a long-term target are set in the strategy: 1) stabilize the level of environmental degradation to the levels of 1992 by 2005; b) reduce the level of environmental degradation of 1992 by 2020. The economic advantages of the actions proposed have been calculated to provide benefits of 20 billions of Dirhams per year, while their cost is only 4.5 bio., representing this amount, however, 6 times the present public expenditure for environmental issues (DoE 2001, UNDP 1999).

Main activities for the formulation and implementation of the strategy included: a) studies on the Moroccan state of environment; b) inventory of environmental-related projects; c) formulation of the PANE; d) preparation of a sensitization programme on environmental issues and the implementation of a database and information system on the environment (SIDER) (see box 8); e) study programmes on biodiversity, GHG and desertification and; f) preparation of regional and local environmental monographies.

Box 1: Main axes articulating the SNPEDD

- Evaluation and Monitoring of the Environment (i.e., information system and database on the environment and implementation of a national monitoring system).
- Strengthening the legal framework (i.e., update of legal texts)
- Strengthening financial and demonstration tools (i.e., enhance the *Industrial Decontamination Fund* (FODEP),implement a *National Environmental Fund* and demonstration projects: see table 5 and section 3.4).
- -Integration of environmental issues within the economic and social development strategies.
- -Promote the coordination and support national activities on environmental protection in cooperation with the concerned ministerial departments.
- -Sensitization, information and education.
- -Assistance and promotion of partnership activities.
- -Promote regional and international cooperation.

Source: UNDP 1999

The PANE document is the action plan formulated after the SNPEDD. It is articulated along seven chapters. Chapter one to five are introductory chapters presenting the document, describing the state of the environment and integrating past experiences on environmental management. The sixth chapter presents the PANE objectives collected on the basis of consensuated criteria and its content with a description of proposed actions. The last chapter shows the 5 conditions for the implementation: a) stir the institutional framework; b) disengage progressively the state and enhance the participation of civil society for the conservation and revalorization of the country's resources; c) improve the existing monitoring tools for better decision-making; d) guarantee the participation of all stakeholders; e) mobilize the financial resources (internal and external) necessary to implement the PANE. Finally it proposes an institutional framework and possible financial sources for implemention. The PANE contains 156 actions, articulated around 7 areas, namely, sustainable water management, sustainable management of soil resources, air pollution and renewables,

sustainable management of natural environment, prevention of natural disasters and technological risks, improvement of urban environment and management of communications strategies (UNDP and UNFPA 2002).

The PANE provides the implementing dimension compared to the SNPEDD which provided a general framework for action. The PANE is conceived as a mechanism for integrating the environmental, social and economic sectors and for defining action in consultation with national, international, private and public actors. It introduces integrative principles: a) the superation of the end-of-pipe approach (or curative measures) to the pollution prevention (or preventive approach) through, i.e., the promotion of renewable energies, prevention of technological risks; b) participative approach; c) it broadens the scope from a natural resource protection focus to the more integrated ecosystem approach (urban, forest, agricultural, coastal, freshwater). Another sign of a more integrated approach is that the PANE process is also known as Action 30, referring to the 30 million Moroccan population for 2000, which stresses the importance of the social dimension (i.e., population concerns). Also there are some actions to pave the way to an improved health, urban planning, housing, education.

At present, the *Priority Action Plan* (2003-2004), which draws directly from the PANE, is the main focus of the *Secretariat of State for the Environment* (SEE). It is build on 7 axes, namely: a) strengthening the institutional and legal framework, b) promoting integrated projects, c) air pollution, d) improving waste management, e) ecotourism, f) biodiversity and rural development, g) instruments for the PANE implementation. This short-term plan contains 23 actions, process-related objectives.

Coordination and Linkages with Other Strategies or Planning Processes

It is important to mention that a set of PANE actions have been inserted, notably the *Programme of "Clean Cities"* (Programme Villes Propres) within the *Economic and Social Development Plan* (PDES) for the period 1999-2003 produced by the Ministry of Planning (Ministère du Plan) which has the horizontal competencies and is focal point on population and poverty issues (UNDP 1999).

Box 2: Components of PANE incorporated in the National Economic and Social Development Plan

In overall, the major components of PANE incorporated in the PDES framework are:

About the urban environment:

- 1) Clean Cities Programme: Development and support for implementing municipal environmental action plans;
- 2) Strengthening programme for national capacities on environmental impact studies for urban and industrial projects;
- 3) Update of legal texts on healthy housing.

About legislation, rules and finance mechanisms:

- 1) Further development of priority areas not yet covered legally on e.g., pollution, waste;
- 2) Capacity building for the application of environmental legal rules;
- 3) Implementation of a strategy for market-based instruments (see table 5).

About information, communication and environmental education:

- 1) Publication of didactic material to sensitize children and conduct training of trainers;
- 2) Preparation of workshops to sensitize socio-economic policy makers and the business sector;
- 3) Implementation of a database of environmental NGOs/associations for future partnerships.

Within the framework of PDES, it has been agreed that two thirds of the actions undertaken by the SEE

between 1999 and 2001 will be covered by national budget (the rest of the budget is normally covered through activities with donor organisations).

Source: UNDP 1999, Makram 2002

The SNPEDD calls to identify quantified targets but the PANE has failed to provide that in the sense that the targets proposed provide both a time and budget (estimation) needed for implementation but are qualitative and not time-bound.

Box 3: Towards an integrative approach in Moroccan Planning, the PANE example

The Moroccan administration is characterized by being very sectoral, therefore many ministries are involved in the different implementing actions envisaged in the PANE. However, efforts are made to integrate policy of different action areas: 59 or, what is the same, 36 % of the actions, are categorized as cross-sectoral in the PANE. This cross-sectoral approach has been acquired through the integration workshops included in the planning process. The choice of actions finally proposed in the plan has been decided on the basis of criteria fixed by participants in an integration workshop which had the assignment of examining and validating actions proposed by previous sectoral and inter-sectoral workshops. Furthermore, the latter has been evaluated again, on the light of orientations fixed by two important plans of the country: the Economic and Social Plan (1999-2003) (PDES) and the National Debate on Land Use Management (see box 4) on the basis of their important integrating and non-redundant examplary character. The other documents taken into account are of course the SNPEDD and international conventions to which Morocco is committed.

The PANE represents a big milestone compared to the project isolated approach that used to characterize actions in Morocco during the 80s and 90s. The PANE is therefore a good example of the efforts made to overcome the sectoral approach in planning exercises. This action plan has adopted: a) integrated approach; b) provisions of A 21; c) participative approach; d) planning instruments already elaborated; e) vision of long term actions and financing.

Source: UNDP 2002c, UNDP 1999, Dalal-Clayton and Bass 2002

Noteworthy is the coordination efforts between the two international organisations UNDP and United Nations Population Fund (UNFPA) which through their programme coordinators have maximized the synergies between their respective programmes and both organisations have come together to collaborate with the Clean Cities Programme for example. Also coordinated activities have been set up between UNDP's Capacity 21 programme and the World Bank's *Environment Management Programme*, in order to ensure that the institutional strengthening of the PANE process still continues after the programme is completed and to support efforts in the national decentralization programme.

Box 4: National Debate on Land Management (DNAT)

The DNAT debate, which has high political relevance, tries to manage and correct different malfunctions of spatial development, more particularly at global deficit of housing, proliferation of slums, underdevelopment of infrastructure in urban environment, school attendance, the fixing of population in rural areas *and environmental degradation*. One aspect to highlight is the fact that DNAT has integrated environmental concerns as a result of the PANE process achieving one of the most important objectives of the PANE: integrating environmental concerns in economic and social national planning. This debate has showed willingness in acquiring a more integrative approach: a) organisational structure composed by a coordination cell at central level and important enough, regional committees to foster regional activities to integrate regional focal issues; b) organisation of local workshops and regional forums; c) implementation of communication strategies using written, visual and auditive means to stir up support from all sectors of society.

Source: UNDP 2002c

Integration of Sustainable Development Principles

The strategy's overall goal is "the expansion of Morocco's development options and extension of these options to the future generations". The PANE is an evolutionary tool to be revised and updated continously depending on new data and trends about the state of the environment. The actions included in the SNPEDD and PANE provide direct positive effects, three times the economic benefits compared to the cost of the actions undertaken. This approach directly draws from the vision recommended by the UNCSD during the Earth Summit (1992, Rio de Janeiro, Brasil) of integrating the notion of environmental costs within the national accounting. Moreover, an innovative feature of the Priority Action Plan is that includes the "expected socioeconomic impact" of the mainly environmental-related measures, demonstrating how the government is acquiring a more integrated approach to its planning exercises.

3 Institutional and Procedural Aspects of the National Sustainable Development Strategy

3.1 Development and Institutional Aspects

A more general concern about environmental problems was growing in Morocco when the Rio Conference took place in 1992 and this country reacted actively creating both its *Ministry of the Environment* (Départment de l'Environnément or DoE) just after this summit and paving the way to create their *National Strategy for the Environment and Sustainable Development*. Another step taken by the government in that direction is the dynamization in 1995 of the *National Council of the Environment* (CNE), created in 1980, as consultative and coordination body for stakeholders (ministries mainly). Appart from the Rio Summit, another strong factor urges to take into account the principles of SD is the liberalization of the economy, principally in the cooperation with the European Union in 2010 and also the US (UNDESA 1997a).

The government has been traditionally focused on protection of water, forests and the management of hazardous waste. The Department of Water and Forests was initially responsible for environmental policy-making (gradually others became competent in water management). Morocco has been very active in this field as demonstrates also the organization of the *First World Forum on Water in Marrakech* in 1997. As a rule, the increasing pressure on the environment in Morocco has not been followed by any legal measures to offset the damage. The environmental legislation is for the most part outdated and there are many gaps to be filled. However certain policies are now being re-examined, a good example of that is the people-centred approach applied to forest management (Fauconnet and Knoepfel 2002).

The SNPEDD and the PANE are two examples of the government attempts to overcome the very compartmentalized and sectoral approach of SD issues that characterizes the Moroccan admistration. International organisations have played a decisive role on this regard. The SNPEDD was elaborated with the support of UNDP and UN Educational, Scientific and Cultural Organization (UNESCO) and adopted by the CNE in 1995, during the same session where this institution was officially dynamized. Later, the SEE in close partnership with the UNDP Capacity 21 program and another active partner, the UN Population Fund (UNFA), started in 1995 the UNDP project *Methods of action and the Reinforcement of Capabilities* (PARC) with the aim of creating a participatory consultation process for the generation of

development plans at the time of incorporating the principles of SD. The project defined measures and means for a better protection of the environment and for integrating environmental policies into development planning. To facilitate the challenging task of coordination for the PANE (or Action 30) development, Morocco requested the assistance of UNDP's Capacity 21. The team was mainly made up of staff from the SEE, with one international and four national consultants responsible for coordinating the programme's activities. These activities translated into the formulation of the PANE and a demonstration pilot project. The PANE process was finished with its approval by the highest legislative body in Morocco, the National Government Council and was presented in June 2002 in a Forum with national actors and international donors. Several tools on integrated management for the environment have been implemented by the SEE such as, the Moroccan National Observatory of the Environment (ONEM), the National Laboratory of the Environment, or the cell for the studies of environmental impact etc. (see section 3.4), which constitutes an important indicator of the efforts towards the strengthening of institutional capacities (UNDP 2001a).

The global coordination of activities, programmes and projects within the environmental domain is responsibility of the SEE, as well as cross-sectoral activities or specific studies that address environmental issues (i.e., elaboration of legal texts on waste and hazardous substances, environmental monographies) (UNDP 1999).

Morocco's administration is characterised by abeing very rigid and sectoral. The government structure is rather complex, and its functioning is being revised through the *Ministry for Modernisation of the Public Sector*. Competencies in environmental matters are very scattered and there is scarce systematic coordination between administrations. At national level, they are shared by more than six main ministries: Land use management, Water and Environment; Equipment and Transport (National Directorate for Meteorology); Agriculture; Maritime Fisheries; Energy; Habitat and Urban Planning and also by sectoral institutions whose activities can cause environmental damage (i.e., Industry, Tourism). The SEE does not have decentralized branches and therefore, for example, local authorities (which come under the Ministry of the Interior) are in charge of waste management.

Box 5: The National Council for the Environment (CNE)

In 1995, by decree the National Council for the Environment is reorganized (created in 1980) and by the same decree regional councils (for each province) have been created. The Council's mission is to protect the ecologic equilibrium, prevent and minimize any type of pollution, improve life conditions and assure the integration of environmental concerns in economic and social development processes in order to attain SD. It acts as a national coordinating forum that contributes to the definition of the governmental politics on environmental issues. The Council is composed by representatives (at least they must have the position of director) of all ministries and is chaired by the governmental authority in charge of the environment. This demonstrates again the focus on the environmental dimension and at the same time it does not provide high political standing to this council (the highest authority in Morocco, the King Mohammed VI, is not member of the council). Its mandate stipulates the CNE to meet at least twice a year and on ad hoc basis if necessary. But actual meetings are less frequent. It also participates in international activities regarding the environment and SD.

The CNE can optionally opt to adhere (on consultative basis) organizations from the civil society within the technical committees. The council is composed by 5 commissions on: Human settlements; Nature, Natural Resources and Hazards Prevention; Legal and International Relations; Prevention of Pollution; and Culture, Information, Communication and Education. The technical committees are organized as follows: sensitizing, norms and standards; elaboration of laws on atmospheric pollution;

integration in domestic law of international environmental conventions, and of the International Union for Nature Conservancy (IUCN). Regional and provincial councils have been set up to promote sustainable development and implement programmes compatible with national environmental priorities such as rural development projects, the conservation of fragile habitats and improvements in the health and living standards of town-dwellers.

Source: SEE in http://www.minenv.gov.ma

Let us take for example, the issue of water management, one of the most relevant for the Moroccan government. The SEE is in charge of the interministerial coordination of different ministries, namely the Ministry of: Equipment (freshwater, management of water mobilisation), Agriculture (irrigation, combat desertification), Interior (sewerage) and Industry and Commerce (solid and water treatment). The strategy used by the government up to now in order to discuss cross-sectoral issues has been the creation of interministerial committees. The number of interministerial bodies in Morocco (only for the environment) is enormous making coordination activities rather difficult, i.e., the National Committee of Climate Change, the High Council for the Water and Climate (CSEC) and the Interministerial Committee for Land Management.

The SEE is the governmental authority in charge of the elaboration and implementation of the governmental action within the domain of the environment. It is responsible for overall coordination activities through the horizontal missions and actions carried out via dialogue with the different sectoral ministries. It chairs also the CNE. The mandate of SEE is somehow vague though. It calls to establish an institutional framework that will ensure the implementation of programmes and projects designed to pragmatically address environmental concerns. Its mission covers all aspects of the environmental impact of economic activities and international cooperation. The tasks have not changed since the first institutional set-up: monitoring, launching awareness and information campaigns, developing standards and rules.

The SEE is considered a "mission department", as opposed to "management departments" in charge of development tasks that are clearly defined and concrete. The DoE is having trouble asserting its presence and legitimacy. As concerns the "traditional ministries", active in environmental protection, actual protection does not seem to be a major concern for transversal policy-making. Various plans to reorganize the SEE and reinforce its competencies were launched between 1992 and 1996. The SEE structure has suffered many re-organizational changes since its inception. It first had the status of state sub-secretariat in charge of the environment within the powerful Ministry of Interior. The state upgraded the initial state sub-secretariat to ministry with status of state secretariat in 1995 to lay more emphasis on environmental issues. But its organizational structure did not change. During several transitional months, in 1997-98, it became a State Secretariat for the Environment within a very large ministry covering Public Works and Agriculture. Recent changes have placed it as State Secretariat for the Environment (SEE) part to the renamed Ministry for Land use management, Water and Environment.

The last attempt aims to strengthen its competences both at the level of the Secretariat itself, but also at the level of other management secretariats/departments, on the basis of environment types, and separate units for each source of pollution, in order to establish a one-stop office system. The upper hierarchical level would be in charge of

coordination and integrating the different problems tied to the various types of environment. In the "management ministries", the tasks relating to environmental protection would be separated from those to do with development, and separate units would be devoted to protection issues. Routine procedures ensuring transmission of files from one department to another would be set up for questions of confirmity to environmental protection regulations, for minor projects, and for large-scale projects the files would be submitted to the SEE directly which would have the right to veto it if environmental standards are not met (Fauconnet and Knoepfel 2002).

Besides the traditional administrations, Morocco has several councils such as the *Superior Council for Water and Climate*. These councils have variable official competencies, which are determined by decree. In addition to their official role, which consists most of the time in approving strategic orientations, these councils play an important role in promoting the circulation of information. The decisions they make are semi-binding, that is, departments concerned usually accept them, but they are not enforceable. Some would like to see the competencies of the administration- which are blocked at that level owing to the lack of transversal contact- transferred to these committees, in the hope of a more effective management process. This was done with the National Council for the Environment. However, this system did not turn out to be satisfactory, since the councils have no power to enforce their decisions. At present institutionalised contacts are not in place between permanent secretariats of the different councils, despite common interests (Fauconnet and Knoepfel 2002, UNDP 1998).

Box 6: The National Committee on Climate Change

The National Committee on Climate Change, it is composed by the representatives of all ministerial departments concerned. It has been created in 1996 to follow up all the aspects relating to the Climate Change Convention. It has been created also a Scientific and Technic Committee to play role as advisory body in this matter. Morocco has been a very active actor in the international arena regarding the Climate Change regime (country vulnerable to its effects) an example of their interest is the preparation of the COP- 7 held in Marrakesh in 2001, where the Clean Development Mechanism was approved. Several Climate Change study models forsee an increase of 4° degrees in average temperatures for Morocco between the 2002 and 2010. Therefore this will affect directly the country's natural resources such as water, which is already one of the main concerns of national policy. Source: UNESA 1997a, UNDP 2002b

3.2 Participation Aspects

Morocco, like many other countries, adopted a sectoral approach to development, resulting in practices that run contrary to the principles of sustainability. This country's administration is characterised by being based on a strict hierarchy, and by the unwillingness of disclosing information and the administration has very few legal means at its disposal to protect the environment, making it rather difficult to adopt a transversal approach to environmental issues (Fauconnet and Knoepfel 2002).

But the Moroccan government, in recent years is giving signs of willingness to change that by both: a) the decentralisation and deconcentration processes that are giving more regional decision power to Regional governors and councils enhancing the possibilities to integrate actions and policies to a greater extent. Like it proves the Moroccan revolutionary creation of the so-called *Regional Centres for Investment* (CRI); and b) through its SEE is trying to facilitate the move towards an integrated

approach to development through a better co-ordination at the ministerial level (UNDP 2002c).

Although Morocco was until recently an authoritarian state, few NGOs are flourishing. Nevertheless, their influence is not very significant as there are limitations on establishing NGOs and therefore limiting their contribution to SD (Fauconnet and Knoepfel 2002, NCSD 2003). For the most part, these are national organizations working on specific fields, such as environmental rights or neighbourhood associations whose aim is to ensure the well being of local residents. Some of them collaborate with the SEE to spread information about natural resource protection and pollution. Contrary to Western European traditions, the few nongovernmental organizations in Morocco do not consider themselves as pressure groups. The International Union for the Conservation of Nature (IUCN), is the only big international environmental protection organization represented in Rabat for all Maghreb and is wecolmed by the SEE. For its distinct features (treats SD in a multidimensional manner) the NGO Association Environnement Developpement et Action (ENDA) au Maghreb is worth a mention. It signed a collaboration agreement with the Moroccan authorities in 1993 and its activities are spread in different provinces (working on i.e., fighting poverty in urban areas, integrated rural development and sustainable management of natural resources) (UNEP 2004). Some local criticism is sometimes levelled at government. This is not to require though environmentally sound measures but to complain about nature protection measures, such as the creation of national parks, perceived as hampering economic development of the local community concerned.

The focal point of the PANE process was a serie of national-level workshops funded by Capacity 21 programme that took place between April 1996 and July 1998. This participatory processes brought together integrating government (mainly) and civil society, business university, the media and bilateral and multilateral agencies, all concerned with either sectoral or transversal themes (e.g., agriculture and environment, or industry and environment) with the aim to identify priority actions and availability of means. These workshops focused on eight themes: industry, population, energy, soil, agriculture, water, health and land management, urbanization and habitat. This last workshop was not among those originally planned, but when the need to focus on these areas was identified in light of growing urbanization, it was added to the list. Last but not least, two inter-sectoral workshops were also held on: legislation, regulations, and finance first, and later on information, education and communication, in order to facilitate the successful implementation of the crosssectoral action plans resulting from the sectoral workshops. This process of reinforcement of the capacities, dialogue and participation allowed the mobilization and the sensitizing of different groups (UNDP 2001b).

Although each workshop lasted only two or three days, months of preparatory work and months of follow-up work have gone into each one. Preparations began with an information campaign (i.e., radio programmes, television programmes, GTZ training programmes for journalists) aimed at raising awareness of environmental issues not only among the policy-makers and other participants in the workshops, but also among the general public. The information campaign has also been reinforced by a SD Network launched by the SEE with support from UNDP through which products of the PANE process are made available to the public.

Box 7: Developing an integrative approach through national workshops

The attempts made in Morocco in order to integrate environmental concerns and priorities into general economic ans social development plans, have been successful in creating synergy between sectors. Participants from the two PANE intersectoral workshops belong to the industry, population, energy, soil, agriculture, water, health, land management, urbanization and habitat sectors. The two intersectoral workshops versed on legislation, regulations and finance on the one hand, and on information, education and communication, on the other. The goal was that this process would produce a set of integrated action plans and raise awareness of the potential synergies towards SD. Participants provided information about their respective sectors and lobbyied for it to be considered. The hope was to avoid the sense of confrontation and stalemate between environmental and economic priorities. Through a national integration workshop, key recommendations from each of the sectoral workshops were brought together to produce a cohesive, integrated National Environmental Action Plan (PANE). In turn, this plan was then linked with Morocco's three other national development plans: the Economic and Social Development Plan (1999-2003) (PDES); the Plan to Combat Desertification (PAN/LCD); and the Land Management Plan (SNAT).

Source: UNDP 2001b, 2002b

The process used a cross-sectoral, four-pronged approach to ensure that the social, ecological, economic and management dimensions of each workshop theme were addressed in an integrated manner. Participants in the workshops were chosen with a view to ensuring greatest possible involvement and ownership of the process. Representatives from the SEE always played suporting role as team-members, while representatives from the ministry in charge of the sector under discussion were given precedence. The sectoral ministries were recognized as the true experts, who know their area well but who may not be aware of all the synergistic relationships between their sector and environmental sustainability. A monitoring committee was also established, composed of representatives from various ministries, NGOs, business organizations and local communities, until the PANE was approved. The committee evaluated the priority actions identified and disseminated them for feedback among their respective constituencies. Subsequently the integration process of all sectoral workshops has taken place and culminated in a integration workshop in September 1998 which involved a careful analysis, determination of criteria for prioritizing and ensure that actions launched in one sector support rather than disrupt actions in other sectors (UNDP 1999).

3.3 Monitoring Aspects

Classical permit, control or prohibition procedures in environmental matters practically do not exist in Morocco, except in the law on water and certain cases of import or use of toxic products. This situation partly corresponds to the wish of some departments, which are unwilling to increase complexity of procedures, to avoid discouraging foreign investors. Legislation on different sectors is gradually being prepared, but the approval process is very slow. Laws that are close to approval are, namely on the protection and valorization of the environment, atmospheric pollution, and solid waste. Many administrations, pressured by funding providers, have set up environmental impact study systems, but these differ from one department to the next. A law on environmental impact assessment has been developed pending of approval from the King (UNDP 2002c). Nevertheless, there is one factor which should pressure Morocco into improving its concern for environmental issues and this the prospect of a free trade agreement with the European Union. However, the deadline may still lay to far away, by 2010.

To ensure the follow up process achieved on environmental protection and SD, Morocco has been involved in the working framework of the *Mediterranian Commission for SD*, to set up an indicator system for SD (IDD) specific to the national context. The *National Committee for SD Indicators* (CNIDD) (with mainly SEE employees) was set up to create a programme to test and validate the IDD. They used the framework of the *Blue Plan for the Mediterranean* (non-governmental research organization supported by UNEP). After a participatory process a battery of 65 indicators has been chosen and the SEE has made it available through a publication (also via the Internet) to be updated on regular basis (see table 2).

Box 8: Information Technologies (IT) key strength for monitoring and SEE gaining visibility

Within the framework of decentralisation of environmental management, the SEE has developed, together with regional stakeholders, monographies of the environment at regional level. Some regions have already benifited from the use of GIS and the Information System on Regional Environment (SIDER) already foreseen in the SNPEDD, which have set up specific indicators defined for the region concerned. This should allow the monitoring for a comprehensive analysis and later formulation of regional strategies and action plans. One more example of collaboration with international partners and national experts in Morocco has given the development of a *National Observatory Institute of the Environment* (ONEM) created in 1994 (in collaboration with the French Institute for the Environment and the research organization Blue Plan) as a focal point for information, monitoring and decision-making. Its main activities are: a) collect, analyze and dissemination of environmental information; b) produces environmental statistics and indicators; c) develops a stakeholder network on monitoring the environment; d) contributes to the definition of general policy regarding SD; e) publish reports on the state of the environment. The SEE in bilateral cooperation with Germnay has set up a unit called the *National Laboratory of Pollution Research and Monitoring* (LNE); which main objective is identify and characterize the environmental responses to certain natural and human pressure.

Hosted in the SEE webpage there will be soon a Clearing House Mechanism (CHM) for biodiversity issues. Morocco has developed its National Strategy for Biodiversity Conservation and will provide a shared-information platform on this respect.

Last but not least, the ONEM is participating in an international project (in collaboration with Greece and Tunisia) called Mediterranean CoastNet2 funded by the OECD on the application of advanced tele-information and tele-communications technologies for SD.

Source: SEE in http://www.minenv.gov.ma

According to the law, the Secretary-General of the CNE (the SEE assures the coordination between the monitoring systems of the different ministerial departments and related bodies) must submit a report on the state of environment anually, the submission of this documentation has only met in 2001, with the publication of the First *Report on the State of Environement in Morocco* (REEM). This report has been developed on the basis of the indicators for the environment and SD with the Pressure-State-Response approach from OECD (to understand the interrelations between socio-economic activities and the environment). The report is divided in 4 chapters, namely, human activities; physical environment (water, air, soil); biodiversity; and human environment (coastal area, waste, health). The most poor data is the one covering chapters on atmospheric pollution and solid waste. It is recognized the limitation on the data and that continuous monitoring is required.

Table 2: Battery of 65 indicators for SD monitoring

Chapter 1: Population and Society

Demography and Population:

1. Growth Population Rate

2. Total Fertility Index

Quality of Life, Employment, Social Inequities, Poverty and Unemployment

3. Number of employed women for each population of 100 employed men.

4. Population living under poverty line

5. Employment Rate

Culture, Education and Sensitizing:

6.Illiteracy Rate

7. Enrolment in School Rate

8.Proportion of Expenditure allocated to Vocational Training

9. Public Expenditure on Education

10. Public Expenditure on conservation and valorization of historic and cultural patrimony

Health and Sanitation

11.Life Expectancy at Birth

12.Infant Mortality for each 1,000 alive births

13.Access to Drinking Water

14. Motherly Mortality for each 100,000 births

15. Mortality due to Environmental Diseases Rate

Consumption and Production Patterns

16. Annual Energy Consumption per capita

Chapter 3: Economic Activities and Sustainability

Economy in General

30.PIB structure per economic sector

31.PIB per capita

32.Direct Exterior Investment

33.Exterior Debt/PIB

Agriculture

34. Fertilizer and pesticides used per hectare

35. Area covering Irrigated Lands

36. Area covering pastoral foraging units

Fishing

37. Value and Volum of fishing products

38. Number and Average Growth of Fishing Vessels

Mines, Industry

39. Number of Mines and Quarries rehabilated after explotation

40. Water polluted by industrial waste

Services, Business

41. Number and Area of big shopping malls

Energy

42. Energy Assessment per source

43. Proportion of renewable energy resources

Transports

44. Structure, Volume and Rate

Tourism

45. Number of hotel overnights per 100 hab.

46. Number of hotel beds per 100 hab.

47. Number of international tourists per 100 hab.

Chapter 2: Land and Territory

Habitat and Urban Systems

17.Loss of Arable Lands due to urbanisation

18. Unhealthy Settlements Rate

19. Urbanisation Rate

20. Area of Green Spaces per capita within towns of more than 100,000 hab.

Rural and Arid Areas, Mountains and marginal lands

21.Rate of Integrated Programmes for Rural Zones *Forest*

22. Total Area of Deforested Land

23. Forested Area and Forestation Rate

24.Rate of Reforested Areas in Deforested Lands

Coast and coastalization

25. Population Density in coastal provinces (hab/km)

26.Coastal Erosion

27.Area of protected coastal zones

Sea

28. Maritime Traffic of Petrol

29. Quality of coastal sea waters

Source: ONEM at

http://www.minenv.gov/onem/rapport_idd/

/glossaire.pdf (own translation)

Chapter 4: Environment

Drinking Water and Sewage

48. Annual Rate of Resource Mobilization on Water

49. Water's General Quality Index

50.Rate of drainage systems for resource sanitation and treatment of sewage

51. Siltation of Dams Rate

Soil, vegetation and desertification

52.Land Area affected by erosion, salinization and desertification

53.Land Use Evolution

Biodiversity, ecosystems

54. Area of protected zones

55.Endangered Species

Domestic, Industrial and Hazardous Waste

56.Production, collection and destination of solid waste *Air*

57.GHG Emissions

58.Sulphurous and Nitrogenous Emissions

59. Frequency of surpassing the standards for O_3 , SO_4 , NO_2 , MPS and Pb-3.

60.Consumption of ozone depleting substances

Natural and TechnologicHazards

61.Flooded Areas

Sustainable Development, Stakeholders and policies

62. Number of Associations that concentrate on

Environment and SD issues

63. Public Expenditure dedicated environmental protection in PIB's %

64.Existence of national plans for the Environment or/and strategies for SD

65.Number of Local Agenda 21s adopted by local authorities

3.4 Implementation Aspects Specific Initiatives

Since the elaboration of the SNPEDD the governmental efforts have been mainly directed to programmes of decentralisation, improvement of public services, liberalisation of the economy, plans for combating poverty and enhancing rural development, and to some extent the protection of the environment. The enthusiasm that followed the Rio Conference seems to be waning; the quality of the environment is perceived less and less as a priority. On top of that, national and international funds allocated to environmental protection are being gradually reduced (Fauconnet and Knoepfel 2002). The PANE has suggested the creation of an Implementation Commission within CNE but none has been created so far. Therefore is the SEE mainly in charge. Its financial project resources come mainly from international aid. Educational and training programmes, environmental impact studies and environmental quality observation are funded by bilateral cooperation (mainly by the GTZ and US Aid) or by multilateral firms (World Bank, African Bank for Development, UNEP).

It is important to highlight the weakness of functional connections between the national and the local level to facilitate and promote the implementation of the SNPEDD and the PANE. Local authorities at present time have not enough capacity to produce short, medium and long term strategies or detailed action plans. It also exists at this level financial drawbacks. It exists a gap between attributions due to the local authorities and what they actually are allocated. Moreover, this institutions are not familiar with command-and-control or market-based financial instruments (UNDP 1999).

Table 3: Educational and Training on SD Initiatives

Initiative	Outline
Training and information project for the judiciary	There is a lack of legal and human capacities to enforce environmental regulations, and therefore there is little enforcement control. In this context, awareness and information campaigns and training programmes are extremely important (many SEE officials are devoting their efforts to this task, also there are some iniatives from the Ministry of Agriculture and of Public Works).
Public-Privat partnership between government and NGO sector	The SEE has destinated part of its budget to carry out sensitizing campaigns in partnership with NGOs. For instance, the planned reforestation campaign in arid zones against erosion, that convinced the population that such measures will benefit local agriculture in only a few years even if extensification iniatially decreased yields. This program has been extended in response to explicit demands from local inhabitants.
Introduction of environmental related courses within the first and secondary education	The SEE has signed an agreement with the Ministry for National Education. The SEE has a strong vocation on environmental education it allocates 22% of its total budget to activities with this objective.

Source:Fauconnet and Knoepfel 2002, UN 2002

The SEE has implemented a pilot project for the auditing of industries (cement factories, tanneries, chemistry and parachimy industry, etc) and the sensitizing of

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business to the need in investing in clean technologies. As a result it has been developed a programme in bilateral collaboration with the German government of the *Industrial Decontamination Fund* (FODEP), a financial mechanism for the investment of clean technology, and the creation of the *National Centre for Hazardous Waste* (CNEDD). The idea is that the FODEP serves as a pilot project for the future *National Fund for Environmental protection*. This iniative has been born in a context characterised by the absence of norms regarding liquid, gas or solid waste trying to promote voluntary measures and as preparation for the industrial sector to the legislatory body that is being developed (UNDP 2002c).

The government has provided several types of *market-based instruments*: a) the subsidizing of certain plants and soil analysis; b) destination of the income generated by forest development to local authorities of the area when they reinvest 20% of the sum in the forest; c) taxation system (included in the law on water) whereby the polluting enterprises have to pay a tax serving to finance water purification; d) sectoral contracts have been prepared with some professional associations working in chemistry, which have enhanced information exchanges and collaboration between administrations and private enterprises. Regarding *command-and-control measures*, most of the sanctions and fines for violation of the law date back to the French protectorate being obsolete and with no power of dissuasion. The recently adopted law on water includes dissuasive sanctions yet to be implemented (Fauconnet and Knoepfel 2002).

In 1997, with financial and strong support from UNDP, Morocco's first cross-sectoral initiative with a clear multidmensional approach, involving the collaboration of several ministries, was launched. This cross-sectoral demonstration programme was called *Green Star* (reference to the five-pointed star on the national flag). The key feature of this programme was the integration of the following five components of SD: a) renewable and alternative energy; b) sustainable agriculture; c) environmental education; d) promotion of partnerships with civil society particularly in the areas of gender and health; and the last one being a e) pilot project aimed at producing an urban environmental assessment for the coastal city of Essaouira, which has succeed in building local partnerships and strengthening the capacity of neighbourhood associations to improve the urban environment.

Table 4: Energy and Climate Change-related iniatiaves

Initiative	Outline
Green Star	Multi-dimensional initiative whose energy phase had a budget of US\$1.49 million to launch income-generating renewable energy enterprises. 150 rural "energy houses" have been established, run by young entrepreneurs who install, maintain and repair energy equipment. This energy houses provide a distribution link between urban suppliers of alternative energy and rural communities. Initial funding is shared by the young entrepreneurs, local government and UNDP.
Capacity 21-efficient use of fuel	UNDP Capacity 21 is supporting a number of projects focusing on more efficient use of fuel wood, including fuel-efficient stoves, solar water heaters for hammams, or public baths (Morocco's largest consumer of fuel wood), as well as butane gas and rechargeable batteries. There is also the plan to transform Morocco's solar waterheater market through the installation of 100,000 square meters of solar

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	panels in four years, with support from the Global Environment Fund (GEF).
Centre of Information on Sustainable Energies and Environment (CIEDE)	Aimed at strenthening capacities to respond to the Climate Change Convention serving regional interests. Development of action plans to ration fossil fuels, to foster the development of renewable energies and the evaluation of vulnerability to impacts of climate change. Supported by UNDP and GEF.
GHG Inventory	Morocco has established a national inventory of GHG emission sources and sinks. For 1994 the emissions did not surpass the 1,8 tones of CO_2 per habitant and per year.
Energy Management Project in Moroccan Industry Sector	Developed by the Energy Ministry with USAID assistance, has dealt with energy consumption and efficency in the industrial sector.
Strategy for the development of Renewable energies	Morocco imports 97% of their energetic needs. This strategy supports diversification of energetic sources, especifically the renewables. Through the Development Centre of Renewable energies. 50,000 photovoltaic kits have been installed. In Tétouan, on the other hand, it will be build one of the biggest eolic parks in the world with a capacity of 50 Mw. This plan also takes into account the reduction of GHG gases and pretends to maximize the opportunities for a future Clean Development Mechanism, and Carbon Funds.
Clean Development Mechanism (CDM)Programme	UNDP and SEE are collaborating in promoting a favorable environment for CDM implementation and the programme is contributing to strengthen national capacities regarding CDM and abilities to enter a future international emission market.

Source: UNDP 2002a, 2002c

Together with the Green Star programme, local initiatives in Morocco have represented the best examples for managing SD in an integrated manner. Within the framework of LA 21, to reinforce community level capacities for environmental protection and SD the "Clean Cities for Morocco" programme has been designed via Capacity 21 and UNFPA (UNDP 1999). This programme is included in the implementation processes of the PDES and the PANE and has as a major objectives to improve the life conditions of the population (populations' health and socio-economic conditions) and to protect the environment.

Another successful local initiative has taken place in the three Moroccan cities of Marrakech, Casablanca, and Tangier. In this three cities an urban poverty alleviation pilot project started in 1998 supported by UN-Habitat, as a partnership between the beneficiares, associations and elected municipal and national officials. The goal of the partnership was to develop local capacity, create and implement action plans, and make decision-making institutions more participatory. The initiative focused in three main themes: increasing income for low income families, improving access to housing and basic services; and protecting vulnerable groups. This project has been so successful that it encouraged the government to create a *Social Development Agency* designed to finance local iniatives (ICLEI 2002).

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Table 5: Industry sector-related initiatives

Initiative	Outline
Industrial Decontamination Fund (FODEP)	Through bilateral collaboration with the German government, FODEP serves as a pilot project for the future <i>National Fund for Environmental Protection</i> . The FODEP is a financial mechanism for the investment of clean technology and within this framework it has also been launched the project for the creation of the <i>National Centre for Hazardous Waste</i> (CNEDD)
Vision 2020	Tourism is one of the main sectors where SD principles can be applied in Morocco. One national priority is to engage the public sector, business sector and local population in sustainable tourism. This strategy aims at: a) creating and renovation balnearies so that should be managed under SD principles; b) preserve the cultural patrimony; c) promote domestic tourism; d) development of the rural tourism offer.
Pilot projet in Fès plans	Setting up a lagooing plant for a group of tanneries, to purify water before it is flushed into the Oued Sebou.

Source: SEE 2003, UN 2002

3.5 Summary of National SD Strategy

Table 6: Summary of Morocco's National Sustainable Development Strategy Processes

Criteria/Aspects	Outline
Content of SDS -Typology -Content -Linkages with other strategies and planning processes	-Cross-sectoral with focus on environmental dimensionThe Action Plan for Environment (PANE) contains, action areas, 156 actions, qualitative objectives, time and budget estimation and an implementation frameworkSeveral actions of PANE, especially the Clean Cities Programme have been included in PDES 1999-2003. Moreover, several cross-sectoral plans emanate from PANE.
Development Aspects -Legal basis, state of process	-Poor legal basis, active implementation of PANE, Priority Action Plan (2003-2004)
-Institutions, responsible agencies -Decisions and negotiation -External Support	-Responsibilities scattered among many Ministries (i.e., State Secretary for Environment or SEE) and sectoral ministriesRather complex administration, defficient co-ordination and low disclosure of information -Direct external support, by multilateral (i.e.,UNDP, World Bank) and bilateral cooperation (i.e., GTZ, US Aid)
Participation -Coordination -Inter-governmental actors -Civil society, NGOs actors	-Overall strategy coordinated by SEE and UNDP Capacity 21 Programme -There are many , i.e., National Council for the Environment (CNE), High Council for the Water and Climate, National Committee of Norms and Standards, National Committee of Biodiversity, National Scientific and Technical Committee of Climate Change etcConsultant status within CNE. Weak civil society participation.
Monitoring, Reporting and Adaptation Aspects -Responsibilities & Mechanisms -Compliance mechanisms -Learning and Adaptation -Application of Strategic Environmental Assessment	-Central role of SEE, new capacities build throuhg the National Observatory Institute for Environment and the National Laboratory for Pollution and Monitoring. New decentralisation process is providing provinces with more capacities for monitoring (GIS, SIDER)No compliance identifiable mechanisms -None
Implementation of SDS -Responsibility and Coordination -Financing and capacity Communication	-Responsibilities are vaguely allocated. SEE is responsible for interministerial (horizontal) coordination also through CNE as a chair of the council. Implementation of actions is responsibility of SEE as coordinator actor and sectoral ministriesDonor agencies -Mainly via the media (newspaper, radio), web, brochures.
Specific SD Initiatives	-Developing a consistent law body that fills the actual existent void on environmental regulationLocal/Regional and pilot programmes tackling in a very integrated manner SD (i.e., Green Star programme, Clean Cities Programme)Strengthening capacities through environmental education

(i.,e.,judiciary, schools).

-Strong focus on promoting clean technologies through market-based instruments, helping enterprises purchase equipment environmentally-sound (FODEP).

-Strong focus on reconverting fossil-fuel, wood fuel (imported) massive use to the use of renewable energies: solar, eolic. Also with the aim of promoting a national Clean Development Mechanism

4 Supporting information

65 indicators for Sustainable Development http://www.minenv.gov/onem/rapport idd/glossaire.pdf

Association Environnement Developpement et Action (ENDA) au Maghreb http://www.enda.org.ma

Department of Environment (DoE) http://www.minenv.gov.ma

National Council for the Environment (CNE) http://www.minenv.gov.ma

The Moroccan government http://www.mincom.gov.ma/english/ministries/government.htm

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