



Sustainable Agriculture
and Rural Development
MOUNTAIN POLICY PROJECT



CIHEAM
IAM BARI

Sustainable Agriculture and Rural Development in Mountain Regions Project (SARD-M)

Mediterranean Region

Brief Summary

February 2007

CONTACT

Regional Coordinator

Contact: Lamberto Lamberti

Address:

CIHEAM / IAM-Bari
Via Ceglie 9
70010 Valenzano
Bari, Italy

Phone: (+39) 080 4606 321

Fax: (+39) 080 4606 206

E-Mail: lamberti@iamb.it

Website: <http://www.iamb.it>

SARD-M Team

Contact: Dominique Legros

Address:

Economic and Social Development Department of the
Food and Agriculture Organization of the
United Nations (FAO)
Viale delle Terme di Caracalla 00153 Rome, Italy

Tel: (+39) 06 570-54204

Fax: (+39) 06 570-52004

E-mail: dominique.legros@fao.org

Website: www.fao.org/sard/sard-m

Table of contents

Page

Introduction	4
I - The Mediterranean region context	5
II - Activities implemented in the framework of SARD-M policy assessments	7
▪ Approach	7
▪ The guiding concepts	7
III - Lessons learned for SARD in Mediterranean mountain regions	9
▪ Policies	9
▪ Institutions	10
▪ Processes	11
IV - Recommendations for SARD in Mediterranean mountain regions	12
▪ Policies	12
▪ Institutions	12
▪ Processes	13
V - Proposals for follow-up activities at the Mediterranean region level	14
VI - SARD Policies, Institutions and Processes (PIPs) framework: country commonalities and specificities	15
▪ South East Europe Mountain Region	15
▪ Maghreb Region	16
▪ Middle East Region	16
▪ Summary table	17
▪ Conclusions	18
VII - SARD-M policy assessment in Morocco: Lakhdar wadi watershed management pilot Project (PABVOL)	19
▪ Overview of the Moroccan mountains	19
▪ SARD-M policies and processes	22
▪ PBVOL (Lakhdar wadi watershed management pilot Project)	24
▪ Analysis of Opportunities, Threats, Strengths and Weaknesses of PABVOL	30
▪ Lessons learned from the project	32
▪ Recommendations	33
VIII - SARD-M policy assessment in Lebanon: Participatory and Negotiated Territorial Development (PNTD) in mountain territories	36
▪ Introduction	36
▪ Mountains in Lebanon	36
▪ Changes and Driving Forces and their Impact on Mountain Areas	40
▪ Mountains, Policies and Institutions for SARD	42
▪ PNTD Pilot Activities in Four Lebanese Mountain Territories	46
▪ Conclusion	51

Introduction

The SARD-M Project overall objective is to support the rural livelihoods of mountain peoples by facilitating the design, implementation and evaluation of improved policy packages and institutional processes promoting SARD in mountain regions at global, regional, national and local levels.

Policy assessments have been conducted in different regions of the world in order to bring about a better understanding of how the SARD framework is applicable to mountain regions.

The document focuses on the main lessons learned during two years of activities (2005 and 2006) on how Policies, Institutions and Processes (PIPs) in the Mediterranean countries support SARD processes in mountain areas.

A range of selected Mediterranean stakeholders, interested and involved in mountain development issues at the regional, country and local levels, and representing the governmental and non-governmental spheres, have been mobilized and consulted for **information collection and discussion**.

These stakeholders played a key role in the collection of information related to policies, institutions and processes for SARD implementation in the mountain areas of their countries, showing great awareness and high motivation towards SARD processes for mountain areas.

The survey allowed the preparation of **ten Mediterranean country profiles**¹ presenting PIPs frameworks for SARD in mountain areas and the identification and characterization of **twenty significant stories**² related to policies issues in mountain areas according to SARD principles.

Two country SARD-M rapid policy assessments were carried out. In **Morocco**, the aim was to understand how the national policy for watershed management is matching SARD principles. In **Lebanon**, the implementation of pilot activities for initiating Participatory and Negotiated Territorial Development (PNTD) processes in mountain territories, in the framework of the forthcoming new Lebanese Agricultural Strategy was assessed.

A regional workshop "Drawing lessons and learning good practices on policies for sustainable livelihoods of mountain people in the Mediterranean region" was organized and attended by around 40 Mediterranean key stakeholders³ (Tabarka, Tunisia, 8-10 September 2006). A balanced participation was ensured among governments and international organisations, research institutions and various civil society groups. The process of the workshop was mainly based on open and free discussions, taking into account case studies from all regions. Participants discussed issues related to policies for SARD and sustainable livelihoods in mountain areas identifying lessons and recommendations.

Conclusions and recommendations, based on the CIHEAM-IAM Bari Project experience, are proposed as a mean to further promote and support learning processes for SARD implementation in Mediterranean mountain areas.

¹ Covering Albania, Bosnia & Herzegovina, the Former Yugoslav Republic of Macedonia, Serbia and Montenegro; Algeria, Morocco, Tunisia; Lebanon, Syria and Italy.

² For further information, see SARD-M Project Website:

<http://www.fao.org/sard/en/sardm/Communi/materials/index.html>

³ 38 participants from the South East Europe mountain region (i.e. Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Serbia and Montenegro), Maghreb (i.e. Algeria, Morocco and Tunisia) and Turkey from the Middle East (as Lebanon and Syria could not attend), and from other institutions with experience in SARD-M policy issues, such as ICARDA.

I – The Mediterranean region context

The overall situation in the **South and East Mediterranean rural areas** is summed up in four observations derived from recent studies of the region:

- **Accelerated growth of the rural population** over the past ten years;
- **Increased pressure on natural resources** through significant **increases in the number of farms and the area of cultivated and grazing land**, and a corresponding **decrease in the area of forest**;
- **Deterioration of the environment**, to be seen in the dynamics of diminishing pasture areas, the stagnation or even fall in yields of rain-fed crops as more and more marginal land is farmed;
- **Deterioration in living conditions and standards**, and **increasing of poverty**.

The rural areas are currently home to between 40% and 50% of the total population, i.e. between 75 and 95 million inhabitants. In contrast with many other regions in the world, the rural population here continues to grow at a steady rate (around 1.5 % per year). The area farmed per inhabitant has fallen sharply in the past thirty years (from 0.33 to 0.20), as has the area farmed per farmer/agricultural worker (from 2.3 to 1.64).

These problems are **particularly acute in the mountain areas**, where FAO estimates that **40-60% of the population is vulnerable to food insecurity**⁴. Here difficulties exist for the productivity and maintenance of natural resources; access and relative isolation of many areas, the degree they are integrated into national societies and economies. Lack of crop diversity and limited access to current information and knowledge about good nutrition and health care practices expose mountain people to high rates of malnutrition and disease. Attitudes and beliefs lead also people to maintain land-use practices that are no longer suitable to evolving conditions in mountain environments. In many places, **traditional livelihood strategies are no longer sustainable** because of mounting demographic pressure, rapid deforestation, erosion and loss of soil quality. Where this is so, conflict over control of increasingly scarce resources has become frequent.

What happens in the rural world has an **influence over the urban centres** too. Here the population, according to the present scenarios, is projected to have high annual growth in the next 20 years, from 3.5 to 7%. To date, urban economies seem to be quite incapable for offering livelihood opportunities to this increasing influx of migrants. This poses the question how to absorb further migration from the countryside and how to face the increasing challenge of urban poverty and unemployment.

The perspectives are even **more alarming considering the scarce opportunities in the urban areas** to absorb rural population. Here the states are facing problems of growing population too, with increasing level of unemployment, poverty, insecurity. Hence, in the future the rural areas must offer real and secure livelihood opportunities to a growing number of people, giving them reasons to stay. It is needed to generate new income opportunities, create condition of stability, equity and self-reliance, and improve the standard of living conditions and the maintenance of the natural resources.

For a great many reasons, the changes that will occur in the rural environments in the South and East of the Mediterranean over the next 20 years will be crucial, not only to this part of the world, but also to the **Euro-Mediterranean** region as a whole.

The evidences showed how the **top-down or external driven policies**, in general in favour of agriculture intensification, are **no more adequate** to the present situation and contribute to the worsening of the problems. These have determined the awareness for the need to **redesign the rural policy development tools** and to pursue strategies for the creation of secure and diversified

⁴ FAO 2002, the food insecurity in the world, FAO Rome.

rural livelihoods, the empowerment of people, the protection of the environment, the adaptation to the local specificity.

International agencies agree that policy tools are needed which would:

- Facilitate agricultural competitiveness;
- Enhance rural non-agricultural and private sector economic activities;
- Provide collective facilities to ensure that conditions of rural life are acceptable;
- Protect and maintaining the natural resources on which rural livelihoods are based;
- Include rural people in the planning and management of the rural areas.

These are high challenging objectives for the competent authorities for agriculture and rural development that still today do not have alternative policy models to the paradigm of agriculture modernization.

Under external pressures, **Mediterranean Governments** are, however, in the phase of undertaking new development schemes, through **processes of decentralization**. However, the transfer of responsibilities to the local level is seldom accompanied by an adequate change in the policy framework and of the structure and functions of the state bodies that are called to play different roles.

With the reduction of the state direct intervention in the economic activity and services provision, **private sectors and civil society** as moved into the gap, called to assume new competences and to play new roles as well. They are doing these with various degree and level of success, often not prepared to deal with themes and development solutions, which should integrate agricultural, rural development and sustainability issues at once.

New organizational structures and capacities are hence needed to improve the goodness of the policy context for sustainable development of the rural areas, enacting institutions in both the public and private sectors. A multiplier effect can be achieved only if strong linkages are fostered, among the public, private and civil stakeholders, at the local and central levels, in the sector of planning, research, education, etc.

II - Activities implemented in the framework of SARD-M policy assessments

Approach

In 2005 and 2006, a set of activities had been implemented in order to learn about the ways **Policies, Institutions and Processes (PIPs)** concerning agriculture and rural development are supportive to sustainable livelihoods of Mediterranean mountain communities.

A range of selected **Mediterranean stakeholders**, interested and involved in mountain development issues at the regional, country and local levels, and representing the governmental and non-governmental spheres, have been mobilized and consulted for **information collection and discussion**.

These stakeholders played a key role in the collection of information related to policies, institutions and processes for SARD implementation in the mountain areas of their countries, showing **great awareness and high motivation towards SARD processes for mountain areas**.

The survey allowed the preparation of **ten Mediterranean country profiles**⁵ presenting PIPs frameworks for SARD in mountain areas and the identification and characterization of **twenty significant stories**⁶ related to policies issues in mountain areas were also selected and characterized according to SARD principles.

Two country SARD-M rapid assessments were carried out. In Morocco, the aim was to understand how the national policy for watershed management is matching SARD principles. In Lebanon, the implementation of pilot activities for initiating Participatory and Negotiated Territorial Development (PNTD)⁷ processes in mountain territories, in the framework of the forthcoming new Lebanese Agricultural strategy was assessed.

A regional workshop "Drawing lessons and learning good practices on policies for sustainable livelihoods of mountain people in the Mediterranean region" was organized and attended by around 40 Mediterranean key stakeholders⁸ (Tabarka, Tunisia, 8-10 September 2006). A balanced participation was ensured among governments and international organisations, research institutions and various civil society groups. The process of the workshop was mainly based on open and free discussions, taking into account case studies from all regions. Participants discussed issues related to policies for SARD and sustainable livelihoods in mountain areas identifying lessons and recommendations.

The guiding concepts

The lessons learned and recommendations reported in this document are based on the following understanding of SARD in mountain areas:

⁵ Covering Albania, the Former Yugoslav Republic of Macedonia, Serbia, Bosnia & Herzegovina; Algeria, Morocco, Tunisia; Lebanon, Syria and Italy.

⁶ For further information, see SARD-M Project Website:

<http://www.fao.org/sard/en/sardm/Communi/materials/index.html>

⁷ For further information on PNTD approach, see

http://www.fao.org/WAICENT/FAOINFO/SUSTDEV/dim_pe4/pe4_040501_en.htm

⁸ 38 participants from the South East Europe mountain region (i.e. Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Serbia and Montenegro), Maghreb (i.e. Algeria, Morocco and Tunisia) and Turkey from the Middle East (as Lebanon and Syria could not attend), and from other institutions with experience in SARD-M policy issues, such as ICARDA.

- **SARD** is a specific objective of Agenda 21 (Chapter 14). It encompasses the principles of Sustainable Development (economic viability, cultural appropriateness, social justice, environmental soundness, and long-term productivity). It pursues policy adjustment and planning assistance, oriented toward promoting more sustainable livelihoods of rural populations; strengthening human resources and institutional capacity; improved management of natural resources; sound use of agricultural inputs. SARD inherently addresses not just agriculture, but also natural resources, the environment, health, as well as the social, institutional and economic sectors.
- **Mountains**, as high-value and fragile ecosystems, are home to a large population and produce services to territories broader than the mere mountain areas, receive a specific attention in Agenda 21 (Chapter 13). Marked specificities characterize mountains. **Constraints** such as inaccessibility, fragility and marginality, and natural and socio-economic diversities, strongly limit, influence and characterize rural livelihoods of mountain communities. Nevertheless, they bring about **potentialities** for activities that have comparative advantages. Currently, human activities and environmental factors have increased the pressure and degradation on mountain resources, determining migration flows, erosion of traditional livelihood systems, and greater food insecurity among those who remain.
- The degree to which agriculture and rural development can be supportive of sustainable processes and strengthen the communities access to livelihoods opportunities in mountain areas, is strongly mediated by the **existence of supportive PIPs frameworks that recognize the mountain specificities**.
- There are **several policies related to SARD** in mountain areas. There are specific policies related to agriculture and rural development, more general policies concerned with economic and social issues, the establishment of democratic and participatory processes, policies related to markets, policies designed specifically to influence natural resource use and protect the environment.
- All the social organizations, either formal or informal, concerned with mountain areas and having a role in the range of policies related to SARD are considered as "**institutions**". Institutions refer to both organizations and agencies, at the regional, national and local level, operating within the governmental, non-governmental or private sector.
- **Policy processes for SARD in mountain areas are complex and dynamic** and affected by how the activities that characterize their components are carried out. The components of the policy process are: formulation (information gathering, analysis and decision-making) implementation and monitoring and evaluation, resource mobilization, participation.

III - Lessons learned for SARD in Mediterranean mountain regions

Lessons learned highlight how policies, institutions and processes are supportive of SARD in mountain areas.

Policies

1. Mediterranean countries do **not have specific governmental strategies for Sustainable Development (SD) or SARD in mountain areas**. This is not synonymous with a lack of concern for the sustainable development of mountain regions.
2. Nevertheless, a National Strategy for Sustainable Development (NSSD) in Tunisia has put into action local mechanisms (Agenda 21 services) impacting mountain territories. Governments of Balkan countries generally appear strongly committed to the setting up of a NSSD. Presumably, they will have impacts on mountain territories.
3. In Maghreb countries, mountains are impacted by significant strategies related to SARD implementation. Generally, they all promote the improvement of quality of life standards and support to more disadvantaged categories, the integration and diversification of activities, the competitiveness of agricultural products. They propose approaches for coordination among institutions at the different levels, participation of people and private society, local development processes, financial resources mobilization. Mountains, as part of territories with specificities that limit the communities' opportunities, are a main target of these policies.
4. In some cases, it comes out that the adoption of SARD related strategies are not matched by appropriate operational mechanisms. This is the case of the Moroccan 2020 Rural Development strategy and of the new Lebanese Agricultural Strategy.
5. In all countries, mountain areas are generally reached and **impacted by a wide range of policies**, including policies concerned with infrastructure and services development in rural areas, social and human development, local development, natural resources management and conservation.
6. Frequently, **sectorality** is identified as a main policy constraint and efforts should be made to create linkages and synergies with other ongoing policies.
7. Policies are generally criticized for **not properly addressing the livelihoods diversity and vulnerability of mountain people** and for **not being sensitive to gender issues**. This leads to unequal access to opportunities by mountain communities and vulnerable groups.
8. Policies designed for **natural resource conservation** can provide **important lessons** for SARD implementation in mountain areas, as their very nature requires that they be adapted to territorial specificities. Their emphasis on environmental issues, however, should be balanced by social and economic focuses. In Morocco, the watershed management policy evolved from addressing mainly environmental problems to the integration of greater sensitivity to social and economic issues.
9. Policies for the **decentralization of services** and for **local development** are often in place and considered to be of key importance for the development of mountain territories. **Difficulties** are highlighted for their **implementation**.
10. Policies for **diversification** and **integration of activities** such as tourism, forest exploitation and management, marketing and processing of agricultural goods, etc. are considered very important for mountain communities.

11. Policies for **valorisation of mountain communities' knowledge and cultural heritage** are needed.
12. Policies for **controlling migration flows** are needed since these have strong impacts on mountain natural resources and on long-term economic trends.

Institutions

13. At the country level, there are several governmental institutions involved in the implementation of policies that impact mountain areas and communities. The **weakness of the linkages and mechanisms to coordinate and favour synergies** among these institutions constantly appears as a main constraint.
14. **Governmental institutions**, when it comes to mechanisms for the implementation of policies for decentralization, local development and civil society participation, often appear as being **unprepared** and face strong constraints, such as the lack of financial power, inadequate administrative capacities, weak interaction with local stakeholders.
15. The **lack or weakness of institutions** that can facilitate the access of mountain communities to land, services, credits, training is also identified as a weak point.
16. In some countries, the presence of governmental **institutions addressing mountain specificities** appears as an element of success. Examples are given in Tunisia with the Odesypano (Office de Développement Sylvo-Pastoral du Nord Ouest) and in Albania with the MADA (Albanian Mountain Development Agency). With different mechanisms and levels of experience, they are playing important roles driving policy processes that better match mountain specificities and community interests, that rely on stronger policy synergies and stakeholders partnerships that politically empower civil society.
17. Generally, institutions related to **National Agricultural Research and Extension Services** (NARES) do not seem supported by policies for promoting SARD in mountain systems. NARES are **not supportive of farmers and rural communities in mountain areas** that require different and specific solutions. NARES should insert or strengthen their focus on mountains specificities and people livelihoods, and establish stronger linkages with mountain communities.
18. Governmental institutions concerned with **natural resource conservation and protection** maintain a stronger focus on mountain systems. This concern on natural resources conservation **can cause conflicts** with mountain communities, but can be overcome through partnerships with other institutions and local people. This was the case of the HCEFLCD (Haut Commissariat des Eaux et Forêts et Lutte contre la Désertification) and was overcome by establishing partnerships with the local agricultural services considered closer to the communities needs.
19. There is a **strong involvement of the non-governmental sector**, from the international to the local level, in promoting development in mountain areas and the improvement of the livelihoods of mountain communities. This sector is very **important for the adoption of multi-sectoral approaches**, the attitudes of NGOs to interact with local communities, their capacities to mediate with governmental structures.
20. The **strengthening of local institutions and groups**, representing civil society, is identified as a consolidated strategy pursued by projects and policies to empower local communities. It is also perceived as a **primary need** by different stakeholders for mountain communities' support.
21. The **establishment of** institutions that promote regional or national joint actions for mountain regions development is considered very important by the stakeholders as a tool for creating and sharing knowledge and experiences and for influencing policy processes in favour of mountain areas. The example of the established process for the Sustainable Development of South East

Europe Mountain Region is considered as an experience to be promoted in other sub-regional Mediterranean areas. Multi-stakeholders networks are seen as important for learning from other institutions and experiences.

Processes

22. The **lack of mechanisms for creating synergies and complementarities** among the different policies and institutions concerned with mountain areas development emerge as a major constraint. Such mechanisms should exist at the central and local levels, and promote a two-way communication.

In the Algerian Sustainable Rural Development strategy, **comprehensive mechanisms** have been set up to favour SARD processes through the coordination and involvement of stakeholders at the different levels, in local planning, monitoring and evaluation, financial mobilization.

23. A **weak participation of mountain communities** in specific policy steps frequently emerges as a limitation. People participation often remains limited to project frameworks and does not become a structural part of policy processes nor result in the empowerment of mountain communities. Policy formulation, monitoring and evaluation should involve communities in a more systematic and substantial way.
24. Even when mechanisms fostering participation of civil society are in place, the **lack of institutional structures and attitudes to facilitate dialogue and partnerships** represent a limiting factor.
25. **Mechanisms** for accessing **financial opportunities** need to be simplified and made more accessible and responsive to mountain region needs.
26. Tools for generating **data and information** for driving local planning should be set up or strengthened. Mountain communities should be considered as partners in gathering and in the use of local knowledge.
27. Processes for **knowledge inventory** are needed. At present there is plenty of information on mountain regions, policies and programs, as well as their implementation, however there is no **central hub** where this information is available. The use of databases and internet-based forum can be important tools in the exchange of information throughout the Mediterranean.
28. Tunisia has acquired significant **experience on policies specifically addressing the development of mountain territories**, particularly in terms of decision-making processes, institutional building, people participation, local planning, and linkages. These experiences could be very useful for other countries that are in the process to develop specific policies for mountain areas.

IV - Recommendations for SARD in Mediterranean mountain regions

Policies

1. Policy formulation should take into consideration the **cultural heritage** of mountain communities and their wealth of knowledge in order to **valorise mountain specificities** that contribute to improving mountain livelihoods in a sustainable way.
2. Policies should target issues related to **mountain communities' vulnerability** due to their sensitivity to stress, shocks and economic negative trends.
3. Policies should support the strengthening of the linkages that **connect uplands to lowlands** and well serviced areas.
4. Policies addressing and/or impacting mountain areas should promote **diversification of economic activities** considering the diverse nature of mountain livelihoods.
5. Diversification of mountain economic activities should be analyzed and promoted with a view to understand how to **reduce migration flows and encourage mountain populations not to abandon their households**.
6. Policies should support the establishment of the process for the **recognition of the quality** related to mountain typical products, in order to better valorise the products potentialities by the creation of specific labels and contribute to enhance the income level of mountain populations.
7. In order to make resources accessible, minimizing geographical and logistic constraints, policies should allocate adequate financial resources for and **promote the building of infrastructures** such as roads, pipeline systems, telephone lines, electricity, etc.).
8. In order to guarantee the implementation of policies targeting mountain regions, **clear implementation procedures and action plans should be integrated into the legislative act without any delay**.

Institutions

9. **Transnational cooperation** should be encouraged and supported by the identification of common objectives aiming at improving mountain livelihoods.
10. Mountains are impacted by several sectoral policies and, in some cases (Tunisia) are addressed by specific policies. **Coordination among the different levels of political actions** should be ensured in order to achieve coherence and efficiency in the varied range of interventions targeting mountains.
11. In order to reduce the gap between the adoption and the implementation of **decentralization and local development strategies**, a **clear definition of the linkages between territories and local institutions** should be ensured.
12. Mechanisms for **empowering local administrations** should be put in place and **competencies to master participatory approaches** involving stakeholders at different levels should be devised.
13. **Capacity building** should be promoted within the **local institutions** aiming at providing the competencies necessary to set up appropriate and operational mechanisms that can support participatory approaches within the policy process, from formulation to monitoring and evaluation.

14. National Agricultural Research and Extension Services (**NARES**) should underpin their strategies with a participatory and territorial approach in order to **integrate mountain territorial specificities and people livelihoods** in their activities. For example, the Macedonian Agricultural Advisory Services Programme should be investigated to evaluate the possibility of similar developments in other mountain contexts.

Processes

15. Cooperation should be **promoted through regular meetings and workshops** where experiences and best practices can be shared and common interventions targeting mountain areas can be defined.

16. **Communication** among decision-makers should play a major role **in facilitating coordination** among the different levels of political actions. Communications facilities (i.e. electronic platform that would strengthen the linkages among the stakeholders and including tools for knowledge sharing and retrieval) should allow information, experiences, best practices sharing and promote dialogue at different levels.

17. Mechanisms for **dissemination of mountain-related knowledge**, including an institutional map of the stakeholders concerned should be activated in order to raise civil society's awareness on mountains.

18. In Algeria, SARD-related strategies and mechanisms impacting mountain territories are in place and their functioning should thus be investigated to understand the possibility of **transferring or adapting them to other contexts**.

19. Since policies specifically addressing mountains are showing positive impacts on territories concerned (such as the case of Tunisia), **studies and surveys in the socio-economic and environmental domains** should be promoted and implemented in order to provide a framework for policy-makers to develop targeted policies that focus on the mountain livelihoods and natural resources conservation.

20. Policy makers should promote case studies in mountain regions for the **assessment of impacts of policies** and **for adjusting policy efforts**.

21. **Conventions**, which emerged as a requirement **for specific areas** like the Atlas, should be promoted in the wake of the one established in the Balkan region.

22. Further steps of investigation on the **reasons** why **policy implementation mechanisms** do not work, even if the policy preparation has been accomplished, are recommended.

V – Proposals for follow-up activities at the Mediterranean region level

1. Promote mechanisms for the establishment of specific **Regional Conventions** for SARD in mountain areas, such as in the Atlas region, and to connect to other evolving SARD processes, such as in the South East mountain region.
2. Support **networking mechanisms** among existing mountain conventions at the level of Mediterranean countries for the exchange of experiences and mutual support. This could also lead to the promotion of a Mediterranean strategy for the development of the mountain areas.
3. Support the networking of key country stakeholders in order to promote the implementation of **case studies** focused on the analysis of policy processes. This is an important step to acquire lessons for SARD in mountain areas (e.g. the Sustainable Rural Development Strategy of Algeria, the Macedonian Agricultural Advisory Program, or others).
4. Support the establishment of a Mediterranean multi-stakeholder working group to transform the lessons learned and recommendation raised in the Mediterranean into an **action plan** to be discussed during a second regional workshop to be held in the South East Europe mountain area.
5. Development of a network and organization of workshops to promote **coordination and exchange of experiences among existing projects** related to SARD in mountain areas.
6. Prepare **training programmes** for institutional strengthening on SARD implementation in mountain areas. Training packages targeting trainers and concerning the assessment of SARD policy processes in mountain areas should be prepared in order to enable country and local mechanisms to gather information useful to underpin policy processes (formulation, monitoring and evaluation, implementation).
7. Creation of a **knowledge hub**, accessible to all the stakeholders, for collection of case studies, projects in mountains, significant stories, research findings and including a database in partnership with different international organizations, whose aim would be to share and develop knowledge and experiences, disseminate information, promote new interventions specifically targeting mountain areas.
8. Support to **country mechanisms** that would facilitate the stakeholders' access to information/experiences produced by the SARD-M project and that would favour the stakeholders networking at all levels and the promotion of concerted activities. These activities could start in Morocco and Lebanon where two case studies have been already implemented.

VI - SARD Policies, Institutions and Processes (PIPs) Framework: country commonalities and specificities

This section attempts to summarize the results of the analysis and **compare the PIPs frameworks**. An emphasis is given to the main commonalities and specificities of the different countries **at a sub regional level**⁹.

The analysis is expected to **trigger a debate** among the involved Mediterranean stakeholders in order to review the achievements and validate the information acquired¹⁰.

It is important to highlight that the results of the survey **cannot be considered as a final country picture** on policies, institutions and processes for SARD in Mediterranean mountain areas. They have to be handled as an incomplete basket of information that should be built upon. Incompleteness comes from the nature of the process that investigated on a very broad and complex set of information, policies, institutions and processes, through the involvement of a wide range of stakeholders characterized by different perspectives, knowledge and experiences.

Those elements stress even further the **need to strengthen networking mechanisms** in order to provide more exhaustive information, useful for driving decisional processes, eventually expending the PIPs assessment to other Mediterranean countries not yet represented.

South East Europe mountain region

South East Europe mountain countries do not have specific policies supporting sustainable agriculture and rural development in mountain areas. The survey shows, however, the existence of a wide range of policies that are affecting mountain environment and communities as well. They concern policies for infrastructure development, employment, education, services access and provision, environmental protection, natural resources management, poverty reduction, decentralization and local development, etc. An exception is Albania where mountains have a specific place in the Albanian National Strategy for Economic and Social Development.

Processes for the establishment of National Strategy for Sustainable Development (NSSD), which presumably will have an impact on SARD and mountain territories, have been initiated in almost all the countries surveyed, although at different level of advancement and political commitment. The participation of a wide range of stakeholders, from the governmental and non-governmental sphere, is part of the ongoing processes.

In Bosnia and Herzegovina, a framework supportive to sustainable development of mountain areas at the local level does exist - even if a governmental initiative on sustainable development is missing. It is reported that some municipalities with mountain profiles are adopting local development strategies according to Agenda 21 principles.

Governmental institutions in the South East Europe mountain region that deal specifically with agriculture and rural development do not show to have specific strategies for mountain areas and the lack of an institutional attitude to implement processes for sustainable development is also emphasized, especially with regards to the participation of civil society in development (Bosnia and Herzegovina and Albania). The Former Yugoslav Republic of Macedonia and Serbia are setting up governmental policy frameworks for rural development sensitive to mountain areas too.

⁹ Due to the trans-boundary character of mountain areas, the analysis was carried out at the sub-regional level.

¹⁰ The debate would benefit from the involvement of stakeholders outside the survey as well.

A weak mountain perspective appears in the National Agriculture Research and Extension Services (NARES). The Macedonian Agricultural Advisory Support Program, however, is a program of the Ministry of Agriculture that aims to improve national agricultural advisory services, oriented to match the diversity of people livelihood strategies in the different territories.

Other significant institutions dealing with mountain areas are the Ministries of Environment engaged at different levels with environmental and natural resources protection in mountain areas as well. Albania represents a unique case with the establishment of a specific Agency for Mountain Albanian Development and the setting up of interesting networking mechanisms with non-governmental sectors and financial mobilization mechanisms.

Maghreb region

Development strategies for rural and remote areas, including mountain areas, occupy an important place in governmental institutions responsible for agriculture, rural development and environmental protection. They are committed to a complex set of strategies, policies, and programmes for mountain areas development, which are linked to sustainable development principles and mechanisms.

However, specific policies and strategies for mountain areas are not in place, with the exception of Morocco, that has started a multi-stakeholders process for debating the need for a specific mountain policy.

Tunisia is the only country where a National program for Agenda 21 has been activated and several Local Agenda 21 operate in territories with mountain specificities.

In Algeria the Ministry of Agriculture and Rural Development has activated a sustainable rural development strategy that recognizes mountain territories as a main target and comprises sophisticated tools for ensuring coordination mechanisms, monitoring and evaluation systems, democratic and participatory processes.

Morocco, finally, has also prepared the rural development strategy 2020 and has set up mechanisms for coordination among different governmental bodies and other stakeholders for rural development.

Complementary to this concern on sustainable agriculture and rural development, Maghreb countries have a number of policies and processes finalized to support the enhancement of livelihoods systems in mountain areas managed by different ministries and bodies. A wide range of policies and processes are in place and a wide range of institutions, whose aims are to improve the access to services and resources, enhance productivity, protect the environment, etc., is implementing them.

Of specific interest is also the existence of governmental institutions strongly oriented towards mountain problems. In Morocco, the High Commissioner plays a key role for agriculture and rural development of mountain areas for water and forestry and to combat desertification, responsible for the implementation of policies and programs for research and development of mountain areas. Tunisia has the North-West Sylvo-Pastoral Development Office, an inter-governmental institution committed to the development of a specific area of Tunisia. It specifically addresses problems of mountain areas, aiming at protecting the environment and facilitating people participation, and establishing new institutions.

Middle East region

Lebanon and Syria do not have any specific strategy or policy for mountain areas and for their sustainable development. However, institutions are sensitive to mountain issues, even, apparently, through sectoral approaches, with weak synergies and linkages with other similar or complementary institutions.

In Syria, the Ministry of Agriculture and Agrarian Reform is involved to sustain agriculture in mountain areas for poverty alleviation, creation of employment opportunities, women empowerment and environmental protection.

The case of the Ministry of Agriculture of Lebanon is also meaningful since its tries to sustain processes for discussing policies and strategies for mountain development (e.g. sustainability and its ongoing involvement in the implementation of SARD related programs - Integrated Pest Management programme, the National Action Programme to Combat Desertification). Of particular interest is the New Lebanese Agricultural Strategy, strongly inspired by sustainable development principles and based on Lebanon zoning, with mountain areas that contribute to the definition of territorial specificities.

Summary table

	National Strategy for Sustainable Development (NSSD) and for SARD	Mountain strategies/policies	Institutions highly oriented towards mountain issues	Local frameworks for learning lessons from implementation
Maghreb (Algeria, Morocco, Tunisia)	With some exception, no NSSD are in place. On the contrary, meaningful examples of strategies for rural development and mechanisms for stakeholders' coordination on themes related to sustainable development are already activated at the national level	Mountain issues are often covered by strategies and/or policies, even if not having a specific focus on mountain areas. In each country, there are complex policy frameworks sensitive to problems of remote and poor areas.	ODESYPARO- Office de Développement Sylvo-Pastoral du Nord Ouest - Tunisia High Commissioner for Water and Forestry and to Combat Desertification - Morocco	A number of processes, which envisage policy and institutional processes and include mountain communities, have been identified. These represent a valuable resource for sharing experiences and learning lessons.
Middle-East (Lebanon and Syria)	No NSSD and SARD strategies and mechanisms are in place	Not any specific mountain policies/strategies. Some projects and territorial development schemes consider mountain regions.	Arab Forest and Range Institute – Syria Association for Forest Development and Conservation (AFDC) - Green Plan - Lebanon	
South East Europe Mountain Region (Albania, Bosnia & Herzegovina; Former Yugoslav Republic of Macedonia, Serbia)	Countries have activated processes and mechanisms (e.g. committees) for preparing NSSD and rural development strategies	No specific mountain policies. Mountain issues find a place in specific rural development or social development strategies.	Albania Agency for Mountain Development	

Conclusions

The survey process has increased each stockholder's awareness on what is needed for SARD in mountain areas and can be considered as **an individual learning process**.

The contribution given by the partners can **foster debate at the country level** concerning the needs and opportunities, enlarging the range of involved stakeholders. These actors, moreover, could be considered as reliable partners for future SARD-M Project activities or for the promotion of other SARD-related activities.

What also stems from these results is that the SARD-M next steps should have as a priority, the **strengthening and consolidation of the network of stakeholders already involved, eventually extending it to other countries or actors at the country level**. Communication systems could be based on an improved version of the existing online platform developed for the SARD-M policy assessments, e.g. with a retrieval systems on the significant stories and with the facilitation of a specific forum of discussion at the regional, sub-regional and country levels. This would allow existing mechanisms to go deeper in the comparison of situations in different countries, having the chance to link with similar experiences and processes and learning from the experiences of others.

Forums could be stimulated, shifting the focus of the SARD-M analysis on **specific entry points** (an institution, a policy, or a process) by mobilizing multi-stakeholders teams, identifying specific needs and promoting partners' concerted actions starting from the discussion of the outlined country profiles.

The knowledge acquired from the entire process should also be valorised and used for the design of **mechanisms for building stakeholders capacities** for SARD policy assessments in mountain areas.

VII - SARD-M policy assessment in Morocco: Lakhdar wadi watershed management pilot Project (PBVOL)

1 - Overview of the Moroccan mountains¹¹

General features

Mountains cover 26% of the national territory (190 000 km²), and are home to about 30% of the population (over 8 million), with a higher population density than the national average (40/km² compared with 37). Over half the *douars* (villages) are in the mountains together with 75 urban centres (61% of the national total). UAL ('usable arable land') accounts for 35% (3.2 million ha). Forests cover 62% (3.6 million ha) of the total, without counting the Eastern highlands esparto grasslands (3 million ha). The mountainous lands are the country's main water reservoir, supplying 70% (14.5 billion m³) of the surface water resources.

The land has been grouped into two main agro-ecological areas:¹²

- The mountains that are mostly "humid": 400-600 mm of rainfall, 7.5 million ha (11% of the total national land area), 20% of the UAL, 23% of the population;
- The arid mountains (Eastern High Atlas and the North Western Anti-Atlas): 300 mm of rainfall, 3.5 million ha (5%), 5% of the UAL and 2.1% of the population.

The vertical nature of the terrain makes it necessary to categorize it into ecological and agro-ecological tiers, at both the global and the local levels, aggravated by the distribution of rainfall across the country and across the year. This latter factor is essential in Morocco, being a country with a semi-arid to arid Mediterranean climate. Aridity increases moving from north to south and from west to east, and fluctuations in rainfall have now become the norm (between 1985 and 2005 more than 50% of the years have been drought years).

The Moroccan mountains are **an economic heritage of great potential** even though the arable land area is small. Local crop varieties grown on communal land, and handicrafts and tourism could be major sources of revenue in the future.

The mountain lands offer a **rich variety of natural landscapes** or **landscapes fashioned by agriculture**. 154 sites of biological and ecological interest have been classified in Morocco, the majority in mountain zones.

They also constitute a **historical and cultural heritage**: mountains have been the centre of power in various periods of history, while in other periods they have served as a bastion of robust resistance. Despite the severity of the relief, the mountains have always been used for moving goods and people between different regions of the country, and beyond them between the Sahara and the North.

The mountains are also characterised by **multiple identities** expressed in the ways the natural resources are used (water, forests, rangelands, farmlands), and the languages and different forms of cultural expression (architecture, handicrafts, arts, oral literature, celebrations and games), etc.

¹¹ HCEFLCD, 2002 and December 2002.

¹² Allali K. (2003), Doukkali M, Moussaoui M., Bendaoud M. (2003), the Roles of Agriculture (ROA) project, FAO. The differences in the figures cited and the percentages depend on the different sources consulted.

Constraints

Despite the importance of the mountains and their inhabitants, these essential components of the national territory were marginalised until the final years of the twentieth century. This was not only due to their resistance to "peacemaking" under the protectorates but also, since national independence, to the scant interest shown in rural development in general, and in mountains in particular. The **awareness** of the need for comprehensive development incorporating the fragile areas, which includes mountains, only emerged at the end of the last century. What are the main features inherited from this marginalisation and which still characterize mountain areas today?¹³

Environmental constraints

- **Natural resources undergoing rapid depletion** because of over-exploitation from human pressure, evidenced from the population density, which is too high for the productivity level of these resources.
- **Deforestation** amounting to some 31 000 ha annually, exceeds the production capacity of the forests and reforestation levels (10 000 ha annually).
- 6 to 7 million m³ of fuel wood is harvested annually whereas the sustainable production capacity is only 3 million.
- **Accelerated erosion and desertification:** 500 tonnes of sediment per km²/year over 200 000 km² of watersheds, flow to the reservoirs of the dams and floods, and avalanches and flooding have devastating effects on the valleys. 75% of the watersheds are seriously threatened by erosion and desertification and 25% require urgent attention to reduce the silting of dams.
- The present national average water consumption level is around 1000 m³/person/year. In 2025, it will fall to a maximum of 700 m³. The mountains, which provide water for the plain lands and the towns, and derives the least benefit from it, runs the risk in future of suffering from **water stress**.

Economic and social constraints

- Despite the rural exodus, the **high population density** is disproportionate to the natural resources being exploited. In fact, the degradation and depletion of these resources would be even more serious without the remittances of migrants who contribute between 30 and 70 percent of the local populations' incomes.
- A **shortage of social services and infrastructure** in the mountain zones and in all the marginalised zones until the final years of the twentieth century. Efforts have been made to improve the situation and are still continuing today.
- The persistence, at the national level, of **land tenure insecurity** because of legal ambiguities, disputes and lack of investment, as well as the over-exploitation of natural resources. These failures are typical of the resource ownership and exploitation regimes (a variety of different ownership regimes: state ownership, collective property, *melk* (private) unregistered property, *habous* (religious property), clashes and mismatching between local customary ownership and usage rights, and positive right).
- **Inadequate supervision and management of public services** because of the shortage of human resources and the few budgetary resources allocated to mountains.
- A **loss of local culture** because of the attraction of moving to the towns, which is quite advanced in some zones, to the point that in some instances there is even an identity crisis, particularly among

¹³ Based on differences sources of HCEFLCD, Cf. Herzenni, A (2004).

young people who are becoming obsessed by the idea of emigrating.

- The **break-up of grassroots community structures**, which is fairly advanced in some areas, because of the worsening economic and social conditions and the fact that age-old practices of local social natural resource management are being abandoned.
- **Persistent poverty.** Of the 4.2 million people living below the poverty threshold in 2004, two-thirds, that is to say, about 3 million people, were rural. There are no figures for the mountain people as such, but the percentage varies from one wholly or partly mountainous province to another from 16 to 30 per cent, and the vulnerability indices¹⁴ vary from 16 to 27.7 percent. The HDI (Human Development Index) and the SDI (Social Development Index),¹⁵ varies in the above mentioned Provinces: the HDI from 0.195 to 0.535, and the SDI from 0.328 to 0.519, whereas outside the mountain zones in both instances the figure reaches 0.600 and above. The municipalities in the PABVOL zone are some of the poorest in the country and the rates mentioned above are among the highest in the country.

Potentialities

Despite the typical constraints of mountain zones, their potential, which is far from negligible, must also be taken into account, provided that action is taken consistently with the needs of agricultural and rural development, food security, combating poverty and fostering sustainable development:

- Agriculture, which could be more diversified and become more productive by improving the irrigated area and the water economy, promoting **communal land cropping**, which entails crop control. A few examples indicate the way to be pursued even though the process is still only in its infancy: argan oil, honey, cactus and goat meat.
- The possibilities of **rehabilitating and developing natural resources**: watershed management, silvo-pastoral rehabilitation, soil conservation and regeneration, reforestation, the introduction of gas and other energy sources to reduce the pressure on the forests.
- In the two cases of agriculture and natural resource management, the appropriateness of **exploiting the various positive externalities** of crops already cited, medicinal and aromatic plants, natural landscapes or landscapes created by agriculture and encouraging domestic and external tourism, and developing handicrafts based on local products.¹⁶ Given the geological diversity, this is an aspect that should be included in mountain externalities (for example, the Geological Park of the Mgoun massif, the Central High Atlas range).
- The **large numbers of towns** in the mountain zones (urban centres account for 61% of the national total) are a good opportunity for promoting an approach to physical development which harmoniously incorporates the rural and urban, and in which the *souks* (weekday markets) will play an important part and role.
- Strengthening **micro-enterprises** (agriculture, handicrafts, tourism, trade, mining, etc.) is a means of guaranteeing the stability and development of this basic unit in the agricultural and rural world which is still informal in nature today. The development of micro credit in the towns now is still in its infancy in the rural zones, and could be expanded to include this essential economic and social fabric.
- One **essential condition** is to guarantee **secure land tenure** to be able to exploit the local

¹⁴ *Ibid.* The vulnerability index is the percentage of the population living above the poverty threshold but which, depending upon particular contingencies, could fall below the threshold. Total expenditure of a vulnerable household lies between the poverty threshold and 1.5 times that threshold.

¹⁵ The HDI is based on the criteria set out in the United Nations Development Programme (UNDP); the SDI combines access to clean water, electricity and roads.

¹⁶ Cf. The reports on Morocco under the ROA (FAO) Project, 2003 which stress these aspects in the study on the different roles of agriculture and their economic, environmental and socio-cultural impacts.

potential, promote investment, however small, and guarantee sustainable natural resource management. Land tenure legislation and regulations must be revised.

- **Local forms of sustainable natural resource management** are still being tested in certain zones. This is the case of the co-ordinated treeless rangelands and silvo-pastoral resources protection measures (*agdal*), on a seasonal or an annual rotation basis, supervised and monitored by management bodies appointed and overseen by the concerned local populations. When discussing concerted management and co-management it would be a good idea to promote these forms of management, and to appropriately link them to modern management rules and standards.

2 - SARD-M policies and processes

Policies

The situation as it stands is a demonstration of the fact that many different development activities have been conducted throughout the national territory. Ever since the 1990s a large number of initiatives and reforms have been implemented in the country, which have also included mountain zones, against the general background of an acute awareness of the need and the urgent need to update policies and procedures, and the mechanisms for implementing them.

In most of the declarations, official documents and studies and surveys, recurrent notions such as good governance, decentralisation, devolution, participation, partnership and reconfigurability emerge. But mention is often made of the shortcomings, too: the compartmentalisation of structures, the predominance of mono-sectoral approaches, the overlapping of missions and responsibilities, the multiplication of central level of commissions, national Councils and committees at different territorial levels, but without deliberative powers, the inadequacy of the local consultation and coordination facilities, the rigidity of the procedures for allocating, executing and monitoring budgeted funds, the inadequate involvement of the local populations in some programmes and the lack of sufficient local support services, and the inadequacy or insufficiency of incentives to improve resource productivity.

Mention should nevertheless be made of the legal, institutional, administrative and financial measures and reforms adopted in the past few years at the national level, and in certain sectors, which should remedy the shortcomings that have been noted.

For example, the regionalisation and decentralisation reforms; the delegation of ministerial prerogatives to the *walis* and the governors regarding investment and assistance to businesses (the establishment of regional investment centres); current attempts to decentralise budgets; the devolved budgetary powers for operations such as drought prevention (2000).

The Integrated Rural Development (DRI) programmes appeal to the principles of decentralisation, participation, integration and local governance announced in the 2020 Strategy.¹⁷ Special mention should be made of the National Institute for Human Development (INDH)¹⁸ launched in May 2005 which has as its medium-term goal (by 2010) a drastic reduction in poverty, vulnerability and exclusion

¹⁷ This strategy lays down the essential economic, institutional, financial and organisational conditions for "human" and "sustainable" rural development, stressing the importance of the environmental and social aspects of this development. Among these conditions there is also the consideration given to the local/territorial levels, including the "agro-geographical" groupings in which the mountains figure prominently. The 2020 Strategy, views integrated and 'territorialised' rural development within a framework of decentralisation, devolution, partnership, making the players accountable, and negotiating contracts. The Interdepartmental Rural Development Committee and the Councils created in 1999, albeit without deliberative powers, deploy their efforts to implement sectoral activities consistently, mainly through the Rural Development Fund.

¹⁸ This was instituted at the initiative of the King, classified as a "chantier de règne" (the Royal Speech of 18 May 2005). The INDH is based on the human development principles proclaimed by the United Nations to support actions in four areas: "income generating activities, access to basic social services and facilities, social, cultural and sports leadership actions, strengthening governance and local capacities". It has a special Fund to back it, with resources from the State budget and the local communities.

in the poorest zones, which includes the mountains, consistently with the human development principles and the commitments entered into in the Millennium Goals.

Morocco does not have a mountain policy as such, and the attempts that have been made to draft one have not yet been implemented. Conversely, it does have agricultural and rural development policies. While applying to the whole of the country, some of them have specific components including mountain areas, and others apply indifferently to all areas without any specific distinctions. In both these cases, there is an intention to integrate the environmental, economic and social dimensions, consistently with the spirit of the Rio Earth Summit and Agenda 21, and their current extensions.

It would be hazardous, considering the proliferation of measures that exist and their different levels of progress, approaches and implementation, and the frequent absence of any documented evaluations, to record their real impact on mountain zones in all their diversity without well-documented studies taking account of the diversities and individual situations that exist.

Processes of policy implementation: a few aspects and examples

a. There seem to be three major features of the policy implementation processes

- **The first feature:** in relation to **agriculture and sustainable development no nationwide decision has so far been taken.**

Most of the actions form part of programmes or projects, more often than not thanks to external funding, from which lessons can surely be learned, but they end once funding runs out.

- **The second feature** is a **certain indecision regarding crucial issues.** Examples include the macro-economic choices to be made regarding globalisation, particularly in relation to cereals, and basic non-competitive foods. Is it necessary to continue to protect them, or should alternatives be found, and in this case, which? Another example is the matter of land ownership and land use regimes.
- **The third feature**, even when the policies adopt a global and coherent approach, is that there exists **a major disconnect between the principles proclaimed and the degree to which they are really implemented.** We believe that this is a fundamental characteristic in the case of Morocco, which could threaten the effectiveness and sustainability of the actions undertaken.¹⁹

b. Fast-moving processes in some cases that help to attain objectives.

- **Sectoral actions directly managed by a particular entity**, especially when the contractor is a public agency (for example the National Fresh Water Office in the case of potable water, and the National Electricity Office, for rural electrification).
- **Special purpose sectoral funds**, established with guaranteed replenishment: for example, the Agricultural Development Fund to provide incentives to agriculture and provide subsidies, and the National Forest Fund.
- **Partnerships between government departments and associations.** This is only in its early stages but it seems to be promising: for example, literacy, informal education, natural resource conservation and development actions by associations or leaders contracted by government departments.

¹⁹ We have already mentioned this issue in detail in the study of the development of partnerships in Morocco. Cf. Herzènni Ab., December 2004.

c. Difficulties are holding up and delaying sectoral processes implemented by horizontal authorities

In these cases, **political** support is lacking or there is a **need for arbitration**. For example, the Rural Development Fund, whose procedures for implementation are still under discussion and have been, ever since it was established (1999); efforts at coordinating the environmental programmes to implement international conventions following the Rio Summit is another example. Nevertheless, some inter-sectoral funds are working well because they are the result of a Royal Decree. For example, the Hassan II Fund (1996) and the Special Purpose INDH Fund (2005).

d. Limited implementation of decentralisation and devolution measures

Even when there exists a desire to devolve powers locally and the local level is not equipped to meet the ambitions that are proclaimed. Most of the resources used, particularly the human and financial resources, are still centralised and there is inadequate training for the communal personnel.

e. Repercussions on the development of local associations and communities

The **opening up** of government departments and local authorities to associations is now a certainty with the promulgation of the texts instituting the partnership between these various players. This is even more true in the case of the INDH which sets up committees representing the operators and players involved at different territorial tiers. The present challenge facing INDH and the other social and human development bodies is the institutional strengthening of both the local authorities and the local development associations, professional associations and co-operatives, in order to make them autonomous so that they can act as fully-fledged partners, capable of managing their own affairs and negotiating directly with their economic and institutional environment.

f. Issues relating to the financing of development operations

There are two main problems here:

- Measures to **streamline budgetary procedures** are currently being implemented through devolution, programme contracts, programme budgets, and ex post auditing. It is not only necessary to hasten this process, but also to make it more flexible so that it is more suited to the features of the decentralised projects (small size, budgets covering several years, flexibility between budget items).²⁰
- Development activities are being performed in most cases in the form of programmes and projects supported by **external funding**, often limited in time and without any guarantee that the projects will be subsequently maintained, let alone reproduced or extended. This means that budgets will not be incorporated into the public budget, or in any event will not be regularly replenished as certain special-purpose funds are.

3 - PABVOL (Lakhdar wadi watershed management pilot Project)

General description of the project and the territory

Morocco's interest in watershed management reflects the importance the authorities attribute to soil and water conservation. Experience and investigations conducted over several decades led to the **PNABV (National Watershed Management Plan, 1998)** which adopted a fresh approach to operations. The intention is to guarantee the sustainable management of natural resources in the watersheds (and thereby reduce the silting up of dams) and improve the living standards of the local people.

²⁰ See the study on the implementation of the 2020 strategy, MADR, FAO, BM, April 2005.

**PABVOL Zone
(Earthgoogle Website)**



**Zone of PABVOL Project
(Earthgoogle Website)**



To achieve this, there are two concomitant major conditions: i) to **replace** imperative planning, "on a large scale over a short period with strategic small-scale planning over a long period", (ii) to **institutionalise participatory** procedures at all levels: at the national level to set up a national watershed management committee, at the regional level and in the project implementation zones, to set up management committees, and at the local level, local committees responsible for drafting management contracts and to oversee their implementation. The appropriate implementation of the strategy demands effective decentralisation and the involvement of the people concerned in a contractual framework, together with more flexible mechanisms for pledging, implementing and auditing budgets.

All the component parts of this strategy must be tested on a small scale in the framework of **PABVOL** in the **Lakhdar Wadi Valley**, to be able to reproduce it on a larger scale if successful. The reason for choosing this watershed was that it is one of the priorities of PNABV due to its classification as one of the most erosion-prone watersheds (ranking 3rd on the list of priorities, after the two Rif watershed in the north of the country, where projects have also been launched).

Overview of the duration and cost of the project (1994-2004)

This project, for which the initial preparatory studies began in 1994, took off in December 1998 and was supposed to take five years. It was financed by the Moroccan government and the World Bank (WB) with local labour supplied by the project zone populations, to which a financial value was attached. Following the midterm evaluation conducted in July 2003, it was decided to reduce the World Bank loan by 10 million DH and to extend the project by a further year. It was concluded at the end of December 2004.

Funding	Cost (millions of DH)	Remarks
Central government budget	13.6	
World Bank	38	Reduced to 28m agreed between the World Bank and the Moroccan government
People Participation	3.9	
Total	55.5	45.5

The situation in the zone and the local population

The Lakhdar Wadi watershed above the Hassan I Dam, in the Azilal province (Central High Atlas) covers an area of 166 700 ha.²¹ The population of the four rural municipalities are situated in the watershed was 55 000 in 1994 and 63 500 in 2004. The population involved in the project accounts for 22% of the total and the *douars* 18%.

The annual growth rate exceeds the overall national average (1.4%) and is about three times the rural national average (0.6%). This is an important indicator of the continuous pressure on natural resources.

The people living in the project zone are among **the poorest and most vulnerable, not only in the province but in the country as a whole**. The Human Development Index is very low even though it exceeds the provincial average thanks to huge efforts made to improve schooling in the past few years.

²¹ Most of these figures are given in the working papers of the project completion report published by the High Commissioner for Water and Forests and Combating Desertification (HCEFLCD) and the Provincial Directorate of Agriculture 2005, and the World Bank Evaluation Report, 1995.

The Social Development Index is very low because most of the *douars* are isolated and due to the low level of electrification and piped fresh water.

Physical data

High mountains dominate the watershed. 77% of the area is above 1 000 m. The relief is generally marked by steep slopes and the summits are between 3 000 and 4 000 m in the southern part of the zone. They are generally not very permeable and are highly erosion-prone. The average rainfall varies between 500 and 1000 mm depending on altitude, and the rainfall is highly irregular within, and between, years.

The watershed may be subdivided into two large parts:

- The high mountains above 2 000 m in the southern part of the zone. Slopes are very steep and in the valleys, which are very deep, irrigated cropping is practised. The vegetation comprises degraded shrub land (forest fallow);
- The average mountains and the plateau in the north and north-west of the zone are characterised by steep slopes and deep valleys. The soils on the slopes are mostly surface soils and pebbly, and are sometimes farmed. The natural vegetation ranges from dense to open shrub land, and the valley beds are used for rainfed paddy farming.

Land occupancy

Croplands only occupy 20% of the area (33 600 ha) of which 13 000 are rain fed and 15 000 under woodland (shrub land)! Dense woodlands only account for 8% of the land mass and rangelands 35%. The extent of cropping on wooded land is evidence of the strong human pressure on the natural environment.

The effects of erosion in the watershed

The erosion map and the classification of the lands show that the sectors in which the anti-erosion measures are required account for 52% of the total surface area of the watershed (87 000 ha).

The rate of silting of the Hassan I Dam is 2.87 m³/year, is three times more (1750 m³/km²) than what had initially been predicted. This was because the land degradation was far more severe than what had originally been envisaged in the calculations made when the project began (504 m³/km²). The analyses undertaken show that the main sources of sediment cover some 17 000 ha where action is urgently needed, 11 000 ha of which lie in these two municipalities (Aït Abbès and Ouaoula).

Purpose of the project

The purpose of the project is to **"test participatory approaches in the form of a pilot project to improve land-use and productivity and to manage natural resources in mountain zones"**. It has been designed as a means of applying the conclusions and recommendations of the PNABV for an approach which is likely to attain the objectives set down in terms of sustainable natural resource management, improving living conditions, and raising incomes.

By virtue of its character as a trial project, it would only apply to a few parts of the watershed chosen from among those requiring urgent water and soil conservation measures. The priority areas have been selected in the four municipalities the Lakhdar and its tributaries flow through. 42 *douars* were supposed to take part in the project with 13 000 inhabitants covering 30 000 ha, namely 22% of the population and 18% of the area of the municipalities involved.

The activities must be implemented on the basis of the *douars* **development plans**, drafted jointly with each *douar* and validated under programme contracts outlining the responsibilities of each stakeholder. In addition to coordination and concluding contracts with the **population**, the latter must

also **share the costs**, mostly in kind, in the form of a tangible commitment to implementing the project.

The project must thereby demonstrate the **feasibility of the participatory approach** as part of the ordinary activities of the technical services, particularly with regard to sustainable natural resources management, decentralisation and vesting responsibilities in the local populations.

The project's **performance indicators** should be: community participation, which takes the form of running active *douar* committees and taking part in investments; improving natural resource management (increasing the vegetation cover, anti-erosion measures), improving land-use and increasing the income from crop and livestock farming.

Expected results and scheduled activities

The logical framework sets out 6 results which are expected at the end of the project, their performance indicators and possibilities for implementing them. The results were set out as follows: the population has been organised to ensure sustainable natural resource management; erosion-prevention measures have been implemented; the use of irrigated land and (rain fed) *bours* has been improved; forest management has been improved; supplementary infrastructure (tracks and water) have been built, and skills have been acquired to be reproduced in participatory natural resource management.

The planned activities have been grouped into three component parts: natural resource management, social and economic infrastructure and institutional strengthening.

The degree to which the objective has been attained

Active participation by the local population: as a general rule, the population supported the participatory approach of the project very well. It had been planned to implement 40 *Douar* Development Plans (PDD) in 42 *douars*. In reality, 26 PDDs were implemented because some of the *douars* grouped together following their own organisational system. The population affected was essentially as expected (more than 14 000 compared with the 13 000 planned).

26 informal *douar* committees (CDs) were set up during the PDD process. 16 of these committees have been transformed into local development associations (ADL) approved by the current legislation, giving them legal status and financial autonomy as non-profit entities. At the end of the project, 9 ADL had a bank account and the women sat on the Board of 7 ADL which is an innovation in an area where there is a traditional separation between genders.

There was such strong support from the people that the ADLs and the CDs took a number of initiatives outside the framework of the project. For example, 7 ADLs were involved in income generating actions with the support of an NGO, the social development agency and the project team. Moreover, two ADLs were created as a consequence of the project zone and they are seeking support to develop their own zones.

The involvement in the project of the municipal councils has proved positive on the whole. Yet they withdrew to a great extent, mainly because of their lack of resources. It is difficult to know at the present stage how amenable they might be to improvements in the rangelands and the woodlands for collective use, aspects that the project did not deal with extensively.

Higher incomes from crops and livestock farming and income-generating activities: the project planned to intensify 750 ha of irrigated cropping and 200 ha of *bour* lands. The rehabilitation of the small-scale irrigation facilities were the reason for the extension of the lands under cereals, fodder crops and arboriculture (apple trees, nut trees) and increased yields. Efforts have also been made for the *bour* lands (cereals, and olive and almond trees). The same applies to livestock with the introduction of high-yielding strains of small ruminants. Furthermore, 400 women were given support for income generating activities: agriculture, rabbit rearing and handicrafts. Breaking the area out of its

isolation, by building tracks, should also facilitate the supply and marketing of local products and help to improve incomes.

Increased vegetation cover: this increase was estimated in the project impact assessments (first half of 2005) to be equivalent to 4% upstream of the watershed, 16% halfway down the slope, where most of the ravines are found, and 11% downstream on the areas closest to the dam. These results seem to be in line with forecasts. However, while the actual areas are small, because they are chosen for demonstration purposes alone, the results will be seen as being successful by the local people because of their interest in erosion control measures.

4 – Analysis of Opportunities, Threats, Strengths and Weaknesses of PABVOL

The opportunities in the project context

Political and institutional opportunities

- **An international and national environment that is favourable to rural development and sustainable natural resource management:** the international declarations and conventions for safeguarding the environment and sustainable development have been ratified by Morocco, which has made them national priorities.
- **The National Human Development Initiative (INDH), as a special tool for combating poverty and fostering human development:** since mountain zones are among the poorest parts of the country, they are one of the main targets.
- **Important legal and institutional provisions to assist decentralisation and devolution.**
- **Measures to foster sustainable rural and agricultural development activities.**

Opportunities for participation

A promising reaching out to civil society thanks to the promotion of partnerships: for example, the new Municipal Charter makes provision for partnerships between municipalities and associations in various areas of local development.

Technical opportunities

An ongoing debate on the reorganisation of the external services of the Ministry of Agriculture: it relates to improving the performance of the Provincial Agriculture Directorate (DPA) and the Regional Agricultural Development Offices (ORMVA), the Agricultural Work Centres (CT) and the Agricultural Development Centres (CMV) which are intended, as proximity branches, to spearhead the Ministry's participatory and decentralised approach.

Opportunities for marshalling financial resources

Proposals to improve funding systems and methods of executing public budgets: examples are the ongoing experiences with budgetary decentralisation, globalisation, and multi-year planning and *ex post* auditing of expenses.

Threats

Political and institutional aspects

- **The slow rate of implementation of international and national measures to assist the poor zones, particularly mountain zones:** for example, the Mountain Development Strategy proposals were formulated during the Year of the Mountain, but had been held in abeyance ever since.
- **Resources are inadequate to effectively implement decentralisation and devolution measures:** decentralisation is suffering from a lack of human and financial resources at the different territorial levels. Moreover, the fact that services and budgetary appropriations operate in watertight

compartments shows that there is close dependence on the central government, which seriously hampers the coordination efforts at the different territorial levels.

- **Laborious efforts to integrate development activities:** the establishment of the Secretariat of State for Rural Development, and the Interdepartmental Rural Development Committee and Fund is still too recent to be able to fully appraise their effectiveness and impact. The Council and the Committee do not have deliberative powers, and funding is limited, even though it is increasing, but too slowly.

Technical aspects

- **Inadequacies and shortcomings in the organisation of production items.**
- **Essential recommendations on the land tenure issue have not been implemented:** the land tenure security measures require legal provisions to institute resource ownership of resource-use regimes which in the current context cannot only be adopted at the national level.
- **Indecision regarding the reorganisation of the external services and the Ministry of Agriculture.**

Aspects regarding the raising of financial resources

The problems of raising financial resources and executing budgets: the programmes and projects still frequently depend on external sources (International Cooperation, both multilateral and bilateral) without any guarantee that they will be extended after programme closure. Budgetary devolution experiences are only in their infancy.

Strengths

Political and institutional aspects

The project **objectives converge** with those of PNABV and more broadly with the national priorities set out in the various rural development, physical planning and sustainable development strategy documents.

Participatory aspects

- A decisive innovation in relations between the government and the population: **opening up** an uninterrupted process of **dialogue** and **concertation** with the local people, the local elected representatives and other stakeholders (local and national NGOs, public companies, rural municipalities, etc).
- The **beginnings of autonomy for the local people:** the institutionalisation of informal *douar* committees in the form of Local Development Associations (ADL), the emergence of a new profile of local leaders, the involvement of women and young people in the activities.
- **New initiatives** by the people and by the project team, including activities outside of the project: activities specific to the local people, partnerships between the ADLs and local NGOs - national NGOs - public funding agencies (Social Development Agency, etc).

Technical aspects

- The project was put in place **after careful preparation**, making provision for substantial resources for institutional strengthening, research and development, training, and monitoring and evaluation.
- The **project team was united and worked willingly**, guaranteeing continuity to the work despite the frequent changes in the management of the DPA and the project.
- **Flexibility** in the implementation of the project, taking account of the specific pace of the decision-making processes in the local communities and the pace of project implementation (a one-year extension and a reduction in credit matching the project's real absorption possibilities).
- The project team was in a state of **continual learning:** a participatory approach, negotiation skills, technical training, and encouragement to establish partnerships and undertake new initiatives.

The project's weaknesses

Political and institutional aspects

- **Inadequacies in technical and administrative coordination** in a spirit of decentralisation and devolution at the national, provincial and local levels (the Regional level has not been taken into account by the project).
- Activities are being implemented without using the existing legal and institutional framework: Regulations (cf. the Agricultural Investment Code and amendments to it, Law 33/94 on the *bour* lands, the 1990 law on Small and Medium Water Management Facilities). Obviously, this is designed to hasten actions and make them more flexible, but what about their future sustainability, and reproduction or expansion possibilities?
- A few initiatives have been taken without research and without seeking guarantees for sustainability: for example, the AGR income-generating activities.
- The **legislation** and **procedures** used in certain cases hamper the project work. For example, shoring up and restoring the soils, and the choice of sites for joint woodland management which largely ignore the state-owned lands and communal lands, even despite the fact that they account for most of the natural resources in the zone.
- The **inadequate integration** of activities, particularly those affecting natural resources, which cannot be redressed without legal and administrative actions to guarantee land tenure security. The main current issue in the project zone is that the project officially ended in December 2004. A few actions are continuing in the framework of the DPA activities, but they are limited because of a lack of adequate funding. The project team has now been broken up. This break-up is regrettable because it is generally felt that the project was beginning to reach full development. The project team had formulated proposals for project consolidation measures (early 2005). The Administration declared its intention to resume activities, but nothing has yet been done. It should be recalled that PABVOL was considered to be a mere pilot project, to be taken over by another full-scale, long-term project according to the PNABV the principle of "small-scale but long-term strategic planning".

Participation

Evidence of the lack of integration is the choice of the *douars* and *sous-douars* as the project's main stakeholders, whereas the local communities could constitute a broader dimension in the zone because of their collective use of woodlands and range lands, based on customary practices.

Technical aspects

The lack of integration between training, research and development and monitoring and evaluation.

5 - Lessons learned from the project

- The project shows **the relevance of the sustainable development objectives chosen**, incorporating the raising of living standards and incomes, and sustainable natural resource management. A choice of this kind is particularly necessary in mountain zones where natural resources are an essential source of livelihood for the local populations, and must be safeguarded, and rehabilitated, considering the frequent cases of over-exploitation.
- The pilot project outputs demonstrate the **relevance and effectiveness of the participatory approach**, the possibility of reproducing it, and even generalising it:
 - This approach may be applied by **employees of the Administration** (project team)
 - It is a means of **promoting the local populations and giving them autonomy**
 - It is a means of **strengthening the human and social capital**: continual learning by the people, the communal Councillors and other players involved.
 - It creates **a change dynamic**, particularly in attitudes and conduct: greater readiness for dialogue and concerted action, a stronger sense of identity, to be combative rather than

resigned, partnership rather than assistance. In addition, some leaders have realised **the need to safeguard natural resources**.

The participatory approach is a method. If it is fully taken on board and up-scaled, it can become a cultural trait. However, it does not replace strategies, programmes and procedures. It is one of the tools for implementing them.

- In order to **reproduce the experience on a full-scale**, the following **essential conditions** must be met:
 - **Multidisciplinary teams**, of men and women, remaining stably in place throughout the project life.
 - Involvement and **giving responsibility to the coordination and monitoring bodies** (committees, commissions) at the national and local levels.
 - **The involvement of provincial and local government departments**, public entities, elected representatives, professional and development associations, the private sector and all the other bodies concerned. This requires continuing co-operation between all the stakeholders.
 - In the studies preparatory to the projects, account must be taken of the **relevant parties in the local communities** not only at *douar* level but also according to the real social 'configurations' in close liaison with the existing means of livelihood. In mountain zones, these are based on agro-silvo-pastoral production methods and on temporary migration.
 - Preparatory studies constitute an essential basis for **determining the relevant socio-territorial units**, forming the subject matter of development plans. **Natural resource management must be negotiated and contractually agreed just as the other development components** and decisions must figure in the framework agreements.
 - To adopt this approach **competent human resources** are required for leadership, communication, negotiations, conflict management, and sufficient time according to the pace of the decision-making processes of the local communities which are often lengthy.
 - Much closer integration, in synergy with the physical implementation of the project, with **continuing training** in different necessary areas, including the participatory approach which is useful not only at the local level but also at other territorial levels; **demonstration trials, research** and monitoring and evaluation, with the support of teams qualified in their area of competence. **Monitoring and evaluation** must be considered an intrinsic imperative for sound project implementation.
 - The question of the **budgetary expenditure commitment, execution and auditing procedures** is a vital matter. Without decentralisation, devolution or delegation of credit, it is essential to make the procedures flexible and to adapt them to the participatory approach.

6 - Recommendations

At the national level

The political and institutional process

- Recall the **need for national mobilisation** as a means of accelerating decision-making, along the lines of INDH. In this framework, introduce the specific targeting of the most deprived zones: mountains, oases and pre-desertic zones.
- **Strengthen the Rural Development Fund and the prerogatives of the Interdepartmental Rural Development Council and Committee.**
- Capitalise on experiences, draft benchmarks and procedural guidelines in order to embark on specific coordination projects.

- **Compare different forms of natural resource, watershed and development project organisation and management.**²² Comparisons could extend to other types of projects in mountain zones or other zones. Verification could be provided regarding the choice of the most appropriate mode or modes of management.²³ Among the possible scenarios, the delegation of management powers within the framework of a **public-private partnership** deserves examination in view of the constraints on the public operating budget, the local skill shortages, and the difficulties of redeploying qualified personnel at these levels.
- Amend Law 33/94 on projects for developing the *bours*, to adapt the law to the conditions in the mountains.
- Take up again the **Mountain Development Strategy** (2002) file. One of its recommendations is the enactment of a mountain law. Morocco's experience shows that progress in development is sectoral in nature. Rather than wait for all the conditions to be met at the national level in order to promulgate this law, it would be better to target the mountain sector in the short term, as was done in the process leading up to the Agricultural Investment Code (1969) for developing large-scale water management works or the law on Small and Medium Water Management Facilities (1990). The mountain law should include not only institutional, but also the economic and financial, bases of a mountain policy.

The participatory process

- Step up the effective implementation of measures for decentralisation, administrative and budgetary devolution, local inter-and intra-sectoral coordination, the promotion of associations, cooperatives and local communities.

The technical process

- Establish **the status of the mountains** and **update the data on** them, in the knowledge that local diversities are at least as important as general trends (agro-ecological diversity, production systems, resource ownership and use regimes, social resource management systems, para-farm and non-farm activities, poverty levels, population density and growth, migration rates, urban/rural relations, inequality of access to resources, social viability, cultural specificities, etc.). Draft an evolutional **atlas** on the basis of appropriate zoning and a monitoring log book.
- In macroeconomic terms, establish **scenarios for the gradual reduction of cereals protection** (likely to emerge in the coming years), the introduction of substitution crops and their effects on the economy, natural resources, and social viability in mountain zones.
- Examine the **effects of reforming natural resource ownership** and use regimes.
- **Become better acquainted** with the present emergency situation in **civil society**, its potential and needs in terms of the devolution, decentralisation and intra-sectoral devolution of activities, and the evolution of rural communities in this environment.
- **Monitor the new generation of integrated rural development projects**, drawing lessons from them regarding the integration of development and coordination actions, and support for local government and granting autonomy to local communities.

²² For example, contracted-out management (the Tessaout project); or entrusted to an NGO (Masoun project); giving responsibility to an autonomous project manager with his own team (Tazekka and Tafrata project); project entrusted to a CT (Sidi Driss project); to a DPA with a special management committee (PABVOL); to a DPA in the framework of existing services' operations.

²³ Work set more broadly in the institutional context of the country regarding the situation in the places for the implementation of the 2020 Strategy, MADR, FAO, WB, 2005.

- Considering the skill shortages at the local level, **strengthen capacities** in relation to decentralisation, devolution and granting autonomy to **components of civil society**, and in particular to local associations and communities, through continuing vocational training and technical assistance by skilled mobile teams.

Funding process

- Apply the **most appropriate funding formulae** to a long-term mountain policy.

At the level of the project zone

- Consider the urgent need **to retake the initiative in this zone** where the population and the institutional environment (administration, NGOs, entrepreneurs) have been waiting since the closure of the project, which matches the original intentions.
- **Coordinate the different territorial levels** under the impetus of the Interdepartmental Rural Development Council and Committee, HCEFLCD and the Ministry of Agriculture and Rural Development. More generally, at least adopt the management principles established in the Integrated Rural Development Programmes for the *bours*, forests and small and medium scale water management facilities.
- Adopt a formula for **the co-management of the new project** covering the whole zone by the Provincial Directorate of Agriculture and the Provincial Water and Forests Service in the framework of the existing services, as far as possible reincorporating the former PABVOL team into the project personnel.
- **Identify the relevant socio-territorial units**, according to the specificities of the ecosystems and their forms of social organisation, in order to integrate all the communal lands (particularly forests and rangelands) into the coordinated preparation of development plans and natural resource development and sustainable development conventions.
- **Establish the necessary partnerships** between the technical services involved, the local communities, the municipal councils, professional associations, development associations and the private sector.
- Incorporate **forms of establishing land tenure** security into the concerted actions relating to plans and conventions, including, where necessary, natural resource co-management by government authorities and the local population, under contractual agreements established by joint agreement.
- In the very short term, use the balance of the budget for vocational training and technical assistance **to continue the concerted management of the two forest massifs**. To conduct research/development/vocational training, and monitoring and evaluation, particularly on ways of jointly managing natural resources in order to convert it into a demonstration site.

VIII - SARD-M policy assessment in Lebanon: Participatory and Negotiated Territorial Development (PNTD) in mountain territories

1. Introduction

The Lebanese Ministry of Agriculture has implemented from May to July 2006 pilot activities for starting Participatory and Negotiated Territorial Development (PNTD) approaches in four different areas with mountain profiles. The activities fell under the umbrella of the new National Agricultural Strategy, undertaken in the framework of the UTF Project "Assistance au recensement général de l'agriculture", based on a territorialization of Lebanon²⁴ and on the starting up of decentralization processes through the involvement of the civil society.

The UTF project assisted by the FAO/SDAR Service, has mobilized a project team and local facilitators for initiating the PNTD approaches, adapting these to the local conditions.

CIHEAM-IAM Bari, as Regional Focal Point for the SARD-M Project, appointed a Lebanese consultant to assist the project team and local facilitators in PNTD processes and to assess the main weaknesses and strengths for future steps of PNTD that would be sensitive to SARD principles and mountain specificities.

The results of the activities can provide the Lebanese Ministry of Agriculture, the FAO Rural Institutions and Participation Service and SARD-M Project, and IAMB the basis for discussing and promoting further processes for PNTD in Lebanese mountain areas, and for sustaining the decentralization policy mechanisms. Moreover, the results could stimulate debates at the Mediterranean level on the policy-making mechanisms for SARD-M implementation and sustainable livelihoods in mountain areas.

It should be noted that most of the zones that were covered by the study have been subject to severe bombings in summer 2006. This has certainly resulted in some changes that were not included in this report. The changes are expected to be on all possible levels. The ongoing process aiming at the reconstruction of the affected regions could and should strongly benefit from this experience as the PNTD approach could be a very useful tool for the planning of the future of these zones.

2. Mountains in Lebanon

Geographical data

Apart from the narrow coastal strip, Lebanon is mostly a mountainous country covering a total of 10,452 km² with a highly urbanized coastal strip and most of the rural areas situated in the mountains. The topography is characterized by the Mount Lebanon and the Anti-Lebanon mountain chains that run parallel to the coast and are separated by the Beqaa Valley.

The ecological conditions of Lebanon are determined largely by topography and vary with altitude and exposition. The climatic conditions vary from Mediterranean climate along the coast and the mid altitudes of the mountain ranges, via sub-alpine or mountain Mediterranean climate on the highest slopes to arid/sub-desert in the northern plains.

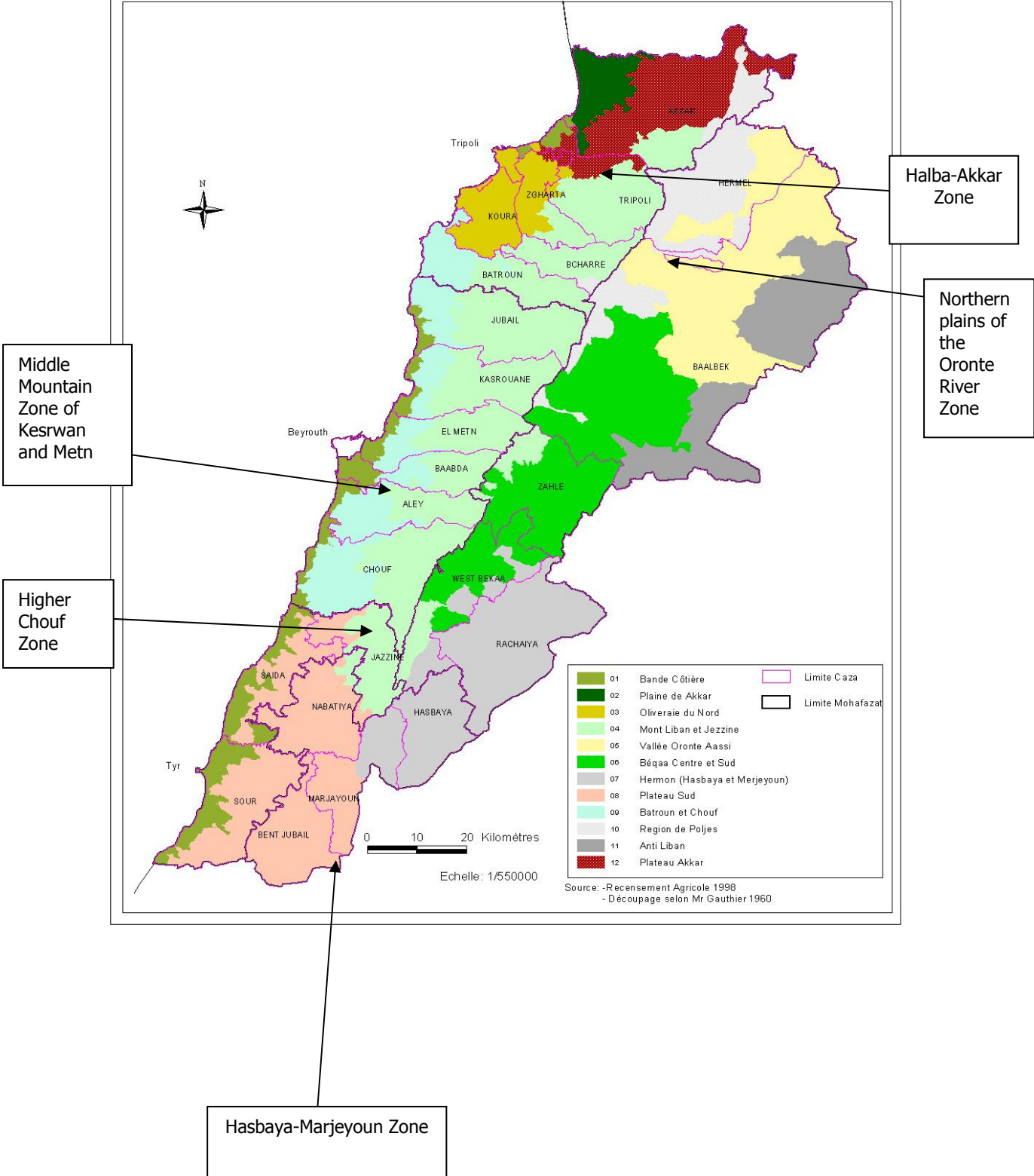
Most rainfall occurs between November and March. The mean annual rainfall on the coast ranges between 700 – 1000 mm. The central part of the Mount Lebanon chain receives up to 1600 mm annually. In the Beqaa Valley, the rainfall ranges from 200 mm in the northeast to 800 mm in the south. The Anti-Lebanon receives between 600 mm in the North to 1000 mm on Mount Hermon.

²⁴ Lebanon has been divided into 40 agricultural homogeneous zones.

Map of Lebanon showing the territories where the PNTD approach was initiated

Ministère de l'Agriculture
 Direction des Etudes et de la Coordination
 FAO / Projet de Recensement Agricole

Zones Agro Climatiques du Liban



The Lebanese Mountains can be differentiated along by altitude into the Thermo-Mediterranean, Eu-Mediterranean, Supra-Mediterranean, Mountainous Mediterranean and Oro-Mediterranean zones. These zones extend from a belt of evergreen maquis and garrigue to summer-green forests and dwarf thorny vegetation typical of the alpine and sub-alpine zones.

Land ownership

The land ownership in Lebanon is almost equally distributed between the private sector, the public sector and the religious communities, under several tenure systems. However, the cadastre is not always updated and surface areas and boundaries are not always clearly set. This is mainly true in remote rural and mountainous areas.

The users of the lands may not always be the owners. Rentals, usufructs, customs and agreements are used to regulate this system. Forest workers, farmers, private rural companies or shepherds may be allowed to use the space under these usage systems.

Activities

a. Agriculture and forestry

With the exception of some major agricultural areas in coastal zones and on low altitudes, most of the agriculture and all of the forestry is concentrated in mountain areas and in the Beqaa Valley, the coastal strip being highly urbanized.

Lebanon is a major food importer. Fruits, vegetables and poultry production, however, exceed the local market consumption and could contribute to increasing exports. The opening of the Arab markets and the free trade agreements in place will certainly affect this production, by allowing the import of cheaper fruits and vegetables from neighbouring countries.

The average agricultural labour force is approximately 9% today, with high regional variations, going up to more than 20% in the Beqaa.

Farmers in rural and mountain areas need capacity-building to upgrade their farming practices in a manner that would help them to develop practices, such as organic farming practices that are more economically and environmentally sustainable.

Like all Mediterranean countries, the wood produced in Lebanon is generally of low quality. Even in the case of intensive forest plantations, the wood production in Lebanon would never be able to compete with other wood sources. The economic value of the forests and other wooded lands in Lebanon will mainly be dependent on services (ecotourism, landscape, amenities, environmental functions, etc.) and on the non-wood forest products (pine nuts, oregano and other aromatic, medicinal and culinary plants). The exploitation of species with a "sentimental value" like cedars, olives or junipers for the production of seedlings, small souvenir items and other handicrafts could also constitute an interesting economic value.

b. Tourism

Tourism in Lebanon has traditionally been urban-based. Most tourists travel to such urban areas as beach resorts, country clubs, casinos, and restaurants. In recent years, however, tourism and recreation are increasingly practiced in natural settings such as forests, protected areas, valleys, and mountain areas.

Until recently, mountain tourism was restricted to winter skiing, secondary summer residences and hotels. Currently, a growing number of small businesses and non-profit organizations specialize in organizing eco-tours throughout the country. A number of associations (NGOs and federations) offer alternative forms of tourism and leisure trips, including climbing and rappelling, rafting, canoeing,

cross-country skiing, mountain biking, speleology and paragliding. In addition, an increasing number of private or community-based initiatives provide camping facilities and various forms of recreation.

NGOs work on promoting locally made products, nature tours, etc. However, it is of utmost importance to mention that the concept of sustainable tourism is not well understood at the decision-making level.

c. Industry

As of January 1999, there were seventy-two industrial zones in Lebanon. However, not all of them have been decreed and none is adequately equipped to host industrial establishments (e.g. waste collection and treatment). Moreover, many industrial zones were established *de facto* and are presently being decreed even though they are located close to residential areas or natural sites. Statistics indicate that almost 82% of the total classified establishments are located outside industrial zones.

Mountain areas have their share of the chaos caused by industries and establishments situated outside industrial zones. However, in several mountain areas, small industries do play an important role in the socio-economic development of the regions.

The requirements of the urban development and the rehabilitation and reconstruction operations after the long years of war have led to the development of quarries. In addition to the major threat, they impose on the natural ecosystems and the degradation they are causing, their anarchic development has caused severe scars in the landscape throughout the country. Several efforts are being developed to organize the sector and to rehabilitate the severely degraded landscape.

Mountains vulnerabilities

The National Action Program to combat desertification (NAP) states the problems related to rural and mountain regions which lead to desertification and land degradation, showing the difference between natural and human induced factors.

Human activities in mountain regions **causing desertification and land degradation** in Lebanon mainly include:

- Agricultural encroachment and cultivation of soils that are fragile or exposed to erosion by wind or water
- Overgrazing – often selectively – of shrubs, herbs and grasses
- Deforestation and overexploitation of wood resources, in particular for fuel-wood and charcoal
- Uncontrolled use of fire for agricultural and forest clearing
- Non-sustainable agricultural practices
- Poor irrigation practices and inefficient water use
- Chaotic urban sprawl on fertile lands and forests
- Pollution (solid waste dumping, wastewater effluents, industrial wastes).

The consequences of desertification are extremely serious and often dramatic to the poor, especially in mountain areas, as desertification reduces production and makes it increasingly precarious. Affected populations will resort to survival strategies that will worsen the situation and inhibit development.

The most generally widespread of these survival strategies is to intensify exploitation²⁵ of the most readily available natural resources. The second strategy is increasing rural migration: this may simply involve men and young people leaving for a seasonal or longer-term job in other areas of the country,

²⁵ The exploitation of available natural resources includes agricultural encroachment of fragile land, overgrazing of shrinking rangelands, clearance of forests for agriculture and improper urban and quarrying activities.

particularly the towns²⁶, or going to other countries; or a more severe migration possibly leading to a population exodus. These survival strategies are often accompanied by breakdowns in the integrity of communities and sometimes families.

3. Changes and Driving Forces and their Impact on Mountain Areas

Lebanon is currently undergoing rapid changes in all the sectors and at different levels (i.e. national, regional and international). All the changes are affecting the rural and mountainous regions, which were already severely affected during the years of war and post-war.

a. Demographic changes

According to the Ministry of Social Affairs, 88% of the population live in urban areas. The estimated population growth rate is at 1.8%. This rate is negative for rural areas and is positive and increasing for urban areas. The urbanization level increased from 79.4% in 1985 to 89.7% in 2000 and is expected to attain 93.5% by 2025. Recent estimates²⁷ based on surveys reveal a population of around 4 million inhabitants. According to UNDP, the population growth is projected at a moderate and declining rate of less than 2% for the next 20 years. The population density is 400 persons/km², against 72 persons/km² in 1932.

A large portion of the population (38.8%), although registered in their various *Mohafazats* of origin, actually reside in Beirut. This exerts a big pressure, which in the absence of proper land use planning and adequate infrastructure, results in major environmental problems.

According to the Ministry of Displaced, about 28% of the resident populations, 810,000 citizens, were displaced during the war (1975-1990). Displacement was associated with large-scale destruction of villages, towns and housing units (i.e. more than 940 villages and towns) rendering immediate return impossible. The most seriously affected *Mohafazat* was Mount Lebanon followed by the South. Despite all the efforts undertaken at the different levels, a high proportion of the displaced population is not willing to return to their native villages.

During the years of war, post-war and until today, Lebanon has been losing a large number of the working population and of highly qualified professionals from all the sectors through emigration. The high level of emigration will affect directly the mountain areas by reducing the working population, but most importantly by changing the level of perceptions and values. Some people will be looking at the services and non-monetary values of the mountains (including forests, landscapes, water resources, etc.) thus affecting the land use and the related activities. In addition, a few people will be willing to work in agriculture and forestry-related fields, as they will be looking for better-paid jobs, more adapted to the urban life and its requirements.

Although the national forest and tree resources assessment project has shown a relatively good level of forests and other wooded lands (OWL) cover in Lebanon (13.2% forests and 11.3% OWL), the increase in urbanization is causing a high level of fragmentation of the forest cover, which hinders the proper development and conservation of these resources.

b. Economic changes

The favourable geographic position, combined with the large entrepreneurial ability of its population and a liberal, market-oriented economic policy, made of Lebanon the gateway to and the turntable of the Near-East economy, especially in the services sector. This sector accounts for almost 70% of the

²⁶ The Lebanese urban population, which has increased from 2,120,000 in 1985 to 3,000,000 in 2000 (out of around 4,500,000 inhabitants).

²⁷ The last population census was carried out in 1932.

GDP and industry for 18%. The contribution of the agricultural sector to the GDP has been around 8-12% during the last few years.

The Lebanese economy is still struggling to recover from the war and conflicts that have devastated the country and affected all productive resources. Agriculture was severely affected through loss of infrastructure, resources and assets. The urbanization has resulted in the loss of many productive agricultural lands in the lower altitudes, which was neither counter-balanced by the development of new agricultural lands nor major agricultural projects on existing agricultural lands in mountain areas.

Several projects are launched in the different sectors aiming at poverty alleviation and socio-economic development. However, coordination and/or complementarities of all the socio-economic development and poverty alleviation efforts, ensuring the sustainable use of the natural resources, the sustainability of communities living in mountain areas and mainstreaming gender issues in the programming process both at the national and local levels, utilising decentralized and community-driven approaches, is still a challenge.

High poverty levels in rural and peripheral areas have several implications on natural resources in general, mainly when it comes to meeting basic needs like food, housing and fuel wood (and charcoal).

c. Technological changes

Technological changes will affect the development of the mountain areas, both directly and indirectly. New technologies could be used for a better management of the existing forests, for the development of the agricultural sector and for the improvement of the reforestation and afforestation campaigns.

d. Environmental concerns

Lebanon has signed most of the environmental conventions and treaties. National action programs are developed and being implemented with the assistance of international organizations and bilateral and multilateral partnership agreements. They have helped to increase the level of awareness and concern of the population towards natural resources and environmental issues.

Several protected areas and nature reserves are established. The issues related to sustainable forest management are being dealt with properly. The land-planning scheme (Schémas directeur de l'aménagement du territoire libanais) is proposing a system of national parks and protected areas to be implemented in the country. It is also proposing the establishment of a cedar and mountain arboriculture corridor on the summits of Lebanon, along with a framework law for the protection of the higher mountains.

Civil society is directly involved at different levels and is playing a major role in the implementation of the conventions and treaties. This has also influenced the level of expectation of the population from the forests and natural resources.

e. Political and institutional changes

The increasing role of the Ministry of Environment and the direct implication of civil society in the different aspects related to natural resources will certainly lead to some changes.

The Ministry of Agriculture is currently revising some aspects of the forest legislation and is finalizing a law for organic farming. The ban on the production of charcoal was recently abolished to allow for a controlled exploitation and stop illicit felling. The charcoal production will contribute to the reduction of the highly flammable biomass and will directly contribute to poverty alleviation. The development of the organic farming will open new horizons for mountain agriculture and will contribute to the sustainability of the human settlements in mountain areas. It will also strongly contribute to the development of agri-tourism.

The protection and conservation of forests and ecosystems induces consequences on the landowners and users. The laws and legislations that govern the protection and conservation measures impose controlled exploitation or sometimes forbid exploitation. While these legislations contribute to the protection of these ecosystems and have a positive effect on the natural resources in Lebanon, they may have direct consequences on the food security and on the income of the owners and users.

In light of the international discussions on decentralization and its consequences on the mountain areas, the Rural Development and Natural Resources Directorate is currently studying the possibility of applying decentralization up to a certain level. The effect of this institutional change will lead to a higher involvement of the local community groups, the municipalities and the grass-root organizations in the different questions related to forest management, food industries, sustainable agriculture and all the aspects of sustainable rural development.

f. Internal driving forces

Severe constraints hinder the development of mountain areas in Lebanon, the most important of which being the very **limited budget** allocated to the development of this sector.

One of the most important challenges facing the mountain areas in Lebanon is the **conflict on land use**. The development of urbanization and the need to increase the agricultural production can only be at the expense of the forests and range lands. This challenge can only be faced with proper land use planning and certainly the adoption of the land-planning scheme (Schémas directeur de l'aménagement du territoire libanais) or the development of another integrated land use program, involving the local communities.

The Rural Development and Natural Resources Directorate will soon **develop a forest policy** and national forest program, and a mountain and rural areas policy in collaboration with the different concerned state and non-state stakeholders. Another important challenge to be faced is the integration of the policy and the program in the overall development programs of the country.

The **free trade and open markets policies** will contribute to the development of traditional crops, niche products and the revival of other forgotten sectors, that are not concerned by the free trade and that will bring an added value to the Lebanese agricultural products.

The encouragement of **forest plantations** will present another opportunity, as it will allow for the exploitation of these plantations at maturity, for fuel and industrial wood thus reducing the stress caused on the natural forests. This activity could also offer the opportunity of applying certain aspects of international treaties and agreements.

Until today, **very little coordination** exists **between the ministries in charge of mountain areas**, namely the Ministry of Agriculture, the Ministry of Environment, the Ministry of Energy and Water (watershed management), the Ministry of Interior (municipalities) and the Ministry of Finance. The coordination among all the concerned institutions and the stronger collaboration with the civil society will have a great influence on the sustainable management, the protection and the conservation of natural resources.

4. Mountains, Policies and Institutions for SARD

Global context

Since the end of the war in 1990, Lebanon's main challenge has been to rebuild its economy. The country suffers from a severe debt burden, economic stagnation and unemployment. The Government is working on the rehabilitation of several sectors affected by the war and its consequences, and on stopping the degradation of natural resources.

Several line-ministries and public bodies are contributing to rural development, natural resources conservation and combating land degradation through proposing and implementing the necessary strategies, policies, programmes and specific projects within the framework of sustainable development.

Although Lebanon is fulfilling its commitments towards the international conventions and agreements, there is yet **no Sustainable Development Strategy** for the country, agreed upon by all parties and stakeholders. There are on-going efforts at different levels and in different ministries, but no mechanism has yet been created. The political instability that the country has recently been going through since 2005 is hindering the process.

There is **no written mountain and rural development policy**. Each concerned ministry develops laws, legislations and projects. In addition to the recently finalized Agricultural Strategy, the Ministry of Agriculture is developing laws, legislation and projects in a certain framework, aiming at the development of the agricultural sector; the food industries; the conservation, promotion and management of the forest and tree resources. Those activities concern both the mountain zones and the coastal agricultural zone.

The Rural Development and Natural Resources Directorate in the Ministry of Agriculture does not directly address mountain issues.

It should be noted that even without a specific focus on mountains, the Government and its bodies are **implementing policies and processes aiming at the development of mountain areas**. For example:

- Both the Ministry of Agriculture and the Ministry of Environment are launching initiatives to save the natural patrimony and promote protection and proper management of natural resources. Laws prohibiting woodcutting and protecting forests from fires, grazing and mismanagement are issued.
- The Ministry of Social Affairs is engaged in poverty alleviation.
- The Ministry of Administrative Reform is working with municipalities on sustainable development plans (with the technical and financial assistance of the EU).
- The Council for Development and Reconstruction has recently prepared a land use plan (Schémas directeur d'aménagement du territoire), in which mountain areas are given a particular focus in terms of protection and conservation (mainly high mountains, beyond human settlements).
- The Ministry of Economy is developing economic measures to encourage investment and improve the quality of the products.

The Forest Policy and Strategy

The Ministry of Agriculture is initiating a process to develop²⁸ and implement a national forest policy and strategy and is seeking funds to start this process. Although the policy is not developed yet, it constitutes one of the major elements of mountain development and the implementation of the SARD-M process.

The following priority goals are proposed for the development of the forestry sector to the year 2020:

- Adopt an **ecosystem-based approach** that maintains forest health, structure, functions, composition and biodiversity through integrated land-use planning, the implementation of a system of representative protected areas and the establishment of mechanisms to advance the conservation, management, planning and maintenance of urban and peri-urban forests.

²⁸ The priority goals were developed with the assistance of an FAO consultant in the framework of the TCP project on the monitoring and assessment of forests and tree resources in Lebanon.

- Foster the **participation and involvement of rural populations** in particular the most marginalized ones, in forest management and conservation, improving access to natural resources and enhancing the equitable sharing of multiple benefits thereof, improving therefore rural livelihoods and contributing to poverty alleviation.
- Support **private forests and other investments made by forestland owners** in small and medium-sized viable forests and woodlots businesses through the right mix of extension services and incentives.
- Stimulate the **diversification of markets** for forest products and services promoting value-added and best end-use through expanded research and design as well as markets for environmental services.
- Create an independent **Government Agency** (Forest Office) or strengthen **the existing Forest Department** for a better management of forests and other wooded lands, and a better integration of the concerns of all governmental and non-governmental stakeholders with a view to strengthening the integration and collaboration of all planning authorities (tourism, environment, public works, water, agriculture, etc.) and to implementing decentralization progressively (or at least administrative deconcentration).
- Review, amend, harmonize and update the **forest legislation** with forest-related and environmental legislation to rationalize taxation, make provisions for incentives and payments for environmental services, recognize intellectual property rights, and include emerging new issues and relevant international commitments.
- Establish a comprehensive **national forest reporting system** that consolidates data, information and knowledge for all features of the forest, both urban and rural, other wooded lands, trees outside forests and land use change.
- Maintain and enhance the **skills and knowledge** of forest and natural resources practitioners at all levels (engineers, forest guards, NGOs, private sector, municipalities, etc.) by creating a training centre and a research institute.

The Agricultural Development Strategy, a brief review

The preparation of the agricultural strategy was influenced by the three fundamental principles followed by the Government of Lebanon for the rebuilding of the national economy after the years of wars (i.e. sustainable development, liberalization, good governance).

Rural development and sustainable agriculture are starting to be taken into consideration by the Government and that some actions are starting to be undertaken to reduce the poverty pockets in rural areas. However, social measures being implemented in rural areas are not connected to agriculture; and environmental problems, caused by the mismanagement of the natural resources and the misuse of agricultural inputs, are far from being addressed properly.

Several **challenges and obstacles** should be overcome as they might hinder the proper development and implementation of the Agricultural Strategy:

- An increasing internal demand on agricultural products in quality and in quantity
- A precarious, old and untrained manpower
- The agricultural lands being eaten up by real estate development and by abandonment
- An inappropriate management of the water resources
- A specific modernization, requiring a specialized extension service
- A need to enforce applied research, training and extension
- The challenge of international agreements and their impact on the Lebanese products
- The need to promote the technical and commercial efficiency of the production lines

- The need to improve governance and participation.

The strategy proposes the **steps to be followed** for a sustainable agricultural development, respectful of the environment and characterized by:

- High value-added products, with an increase in quantity, quality and uniqueness accompanied by high quality services, leading to higher incomes and better feasibility.
- The efficiency of the proximity, enhanced by the small surface area of the country and its geography, allowing for the specialization of production zones with a reduced production. This could initiate the development of private initiatives for the production and distribution of typical products and their implementation both in Lebanon and in the neighbouring countries.
- The occupation of the lands (the land use) with a restructuring of the properties. The abandonment of the non-irrigated agricultural lands could be overcome with the planting of productive forest and range species; the irrigated lands could be restructured and made available for agricultural production.
- The protection of the environment, through the development of a high technology responsible agriculture, leading to an economy of the water resources and a reduction of the pollution caused by the agro-chemicals.
- The implementation of a dynamic land use planning, in a fair and equilibrated manner, taking into consideration the environmental aspects and favouring the modernization of agriculture and the zonal specialization.
- The generation of new jobs to meet the requirements of the high tech agriculture, with an eventual decrease in the low productivity of manpower found in the traditional agricultural systems.
- Combating poverty, through the implementation of rural development projects (poverty is mainly concentrated in the rural areas) in the framework of the land use planning in order to increase the chances of the social acceptability of the efforts aiming at the modernization of the agricultural sector.

Three institutional innovations could be considered in the current situation, for a better coherence in the conception of the agricultural development policy and its rural component:

- *The National Observatory for the Analysis of the Agricultural and Rural Development (ONADAR):* Creation of unit for the collection of data, treatment of information and analysis of programs and projects (to assist in monitoring and evaluation) related to agricultural and rural development; and follow-up of the adopted agricultural strategy.
- *Decentralization/deconcentration:* Decentralization of the decisions concerning the rural or agricultural development for a better coordination among the concerned stakeholders and a more efficient way of addressing the financed actions (public or private funds), while looking for synergies at the territorial level.
- *National Programs for the Development of Strategic Products:* Construction of national development programs, with products offering the double advantage of mobilizing and coordinating the means to develop a product, and to increase its capacity to compete against external products, while favouring the specialization and making the necessary adjustments.

The Agricultural Development Strategy and the SARD principles

SARD-M provides a framework covering the principles of sustainable development including economical viability, culturally appropriate approach, social justice, ecological balance and long-term productivity. SARD-M is not only concerned by agriculture, but also by natural resources, environment, health and social, institutional and economical sectors.

In that sense, the **Agricultural Strategy** is **in line with the principles of SARD-M** and of sustainable development, as it concerned by the issues of sustainable development, combating poverty, food security, environmental sustainability.

The Strategy addresses **mountain issues in an implicit way**. It provides a framework for rural development and sustainable agriculture in rural regions. In Lebanon, the rural regions are mainly mountainous.

The Strategy is built in a way to try to minimize the impact of the different policies on the production lines and to benefit the prevailing socio-political climate and the international agreements by proposing specific niche products.

Capacity building and extension are necessary for its successful implementation, along with the administrative and fiscal reform that will provide a suitable environment for the production of high quality products and cash crops.

Although the Strategy addresses some of the issues related to the management of natural resources, mainly the management of water and soil resources, the aspects related to forestry and pastoralism are very weakly addressed.

The sustainable management of mountains in the Mediterranean region can only be approached through the complementarities between the agricultural, sylvicultural and pastoral systems (the agro-sylvo-pastoral system). The evolution of the needs of Lebanese society has caused the addition of two components to this very old system; small industries and tourism. The production of characteristic products and the development of the agri-tourism and ecotourism, the issues of grazing and forest management are vaguely mentioned in the strategy.

5. PNTD Pilot Activities in Four Lebanese Mountain Territories

The Lebanese MOA, through the support of the UTF project, the FAO/SDAR and the CIHEAM Bari (SARD-M Project) has initiated PNTD processes in order to start agricultural territorialization and stakeholders' participation, as advocated by the Agricultural Strategy, and as key elements to contribute to decentralization process. Decentralization being a long process that requires the involvement of different institutions and policies, the PNTD could only contribute to a tentative initiation without any commitment on behalf of any institution or stakeholder.

CIHEAM-IAM Bari, as Regional Focal Point for the SARD-M Project, appointed a Lebanese consultant to assist the project team and local facilitators in PNTD processes and to assess the main weaknesses and strengths for future steps of PNTD that would be sensitive to SARD principles and mountain specificities.

PNTD approaches²⁹

- **The purpose of the PNTD approach**

To be ecologically sound, economically viable, socially just, culturally appropriate and humane, development interventions need to address the issue of power asymmetries that are determined by unequal access to and control over resources and information, and unequal capacities.

The purpose of the PNTD approach is to reduce these asymmetries in supporting a process aiming at the creation of socially legitimized agreements by involving all stakeholders and leading to their commitment and ownership over the development process. It is thus addressing the complexity of the territorial system, its national and supranational context, and the diversity of actors' interests and strategies to promote the appropriation of bottom-up decision-making processes by the actors.

²⁹ From the FAO document "An approach to rural development: Participatory and Negotiated Territorial Development".

▪ **The conceptual principles of the PNTD**

- *Actor based*: Recognition of the heterogeneity of the stakeholders' interests and visions of the territory.
- *Territorial based*: Based on the territories as spatial units of analysis, shaped by the social and historical relations between the actors and the territory.
- *Dynamic*: Understanding of and learning from the complexity of a changing environment to support positive patterns of change and help mitigate negative patterns.
- *Systemic*: Assumption of the complexity of a territorial context and the interdependencies within and between territories.
- *Multi-sectoral*: Integration of the environmental, social, economic, political and cultural dimensions of the stakeholders' visions of the territory.
- *Participatory and negotiated*: Notion of the territory as a negotiation arena to strengthen dialogue and mutual trust, and increase bargaining power.

▪ **Phases and key issues describing the process**

The process can be operationalized in four main phases:

- *Views*: Firstly, the existing demands for external support have to be critically assessed to understand their rationale, their nature and the interests and strategies of the stakeholders from whom the demand originated (including hidden agendas). In particular, this phase corresponds to the territorial diagnosis and is the moment to open the dialogue among the stakeholders. It serves to put all of them on an equal footing regarding the information on the territory. The context-specific political, institutional and legal framework will be analyzed in order to understand the existing rules of the game at regional, national and international levels and their influence on local development.
- *Horizons*: In the second phase, the stakeholders are supported to set out coherent and feasible perspectives for the future development of the territory and to formulate proposals for later negotiation.
- *Negotiation and the Social Territorial Agreement (STA)*: The term "Negotiation" refers to the means to aggregate the diversity of interests in a given territory in order to formulate rural development proposals. The STA includes plans of activities or initiatives for local development (at short, medium and long terms) defined through negotiation among the different stakeholders.
- Finally, the process is intended to lead to a *new cycle of negotiation* that will enable the stakeholders involved to refine, adapt and complement the agreement they have reached initially.

The Lebanese Agricultural Homogeneous Zones and mountain specificities³⁰

PNTD pilot activities were based on territorial units. These territories were identified according to the work realized by the UTF (FAO) project "Assistance au recensement agricole" that divided Lebanon into 40 Agricultural Homogeneous Zones³¹, based on different criteria (socio-economic, edaphic, climate, etc.).

The description of the Agricultural Homogeneous Zones has allowed for the determination of the priorities and specific needs in the different territories. A review of these results has permitted to

³⁰ Mountain specificities: constraints (i.e. inaccessibility, fragility, marginality), diversity and potentials.

³¹ The division of Lebanon into territories (or homogeneous zones) was undertaken in order to implement the Agricultural Strategy in a participative approach at the grass-root level.

highlight how mountains, with their specificities, are driving forces in the determination of priorities and needs of the territories they belong to:

- *On the economic level:* with a few exceptions, the per capita income is lower than the population average and the active population is rather old. An exception concerns the tourism sector in mountain regions with ski resorts, luxury hotels, secondary summer residences.
- *On the social level:* except in some mountain towns, the level of unemployment is usually higher, with a lower population density than in most urban zones and an insufficient access to basic services.
- *On the environmental level:* the role played by agriculture, rangelands and forestry is important, but not perceived in the same manner as in urban centres. This difference in perception often leads to conflicts on the land use between the urban population who does not always understand the economic importance of the forests and the rangelands, and the important role played by forest activities and grazing both on the environmental and economic levels, and the rural population who considers them as a source of income regardless of any environmental consideration.

Mountain regions in Lebanon have some challenging political, social and economic characteristics.

- Despite the important road network that covers the country and makes most of the mountain regions accessible, they remain marginalized and vulnerable (politically, socially and environmentally). Mountain populations are not always consulted when it comes to issues of interest, laws and legislations, or even projects to be implemented in their region. However, the consultation process is being progressively implemented by some NGOs and governmental institutions.
- The Anti-Lebanon mountain chain constitutes the major borderline between Lebanon and Syria, and part of the borderline with Israel. This trans-boundary zone is currently politically sensitive and will not be dealt with any further in this document.

The four mountain territories for the PNTD activities

The four following zones were analyzed for this study: Hasbaya-Marjeyoun in South Lebanon; the Higher Chouf in Southern Mount-Lebanon; the coastal and middle zone of Metn and Keserwan in Mount-Lebanon; and the Northern plains of the Oronte River (Hermel) in the Northern Beqaa.

They were selected in a way to represent all the mountain regions in Lebanon and to allow for the development of a typology of the Lebanese Mountains, with their problems, their specificities, their constraints and opportunities.

The review of these studies allowed for the identification and analysis of some commonalities for the selected territorial contexts.

Common problems being faced: lack of markets and marketing; remoteness from major cities and market places; lack of services; land tenure system and small sized properties; lack of integrated agricultural strategy; lack of expertise; need for improvement of infrastructure.

Factors affecting production cost and limiting the development of agriculture: mountainous lands; small and narrow terraces; remoteness of agricultural lands from villages and from market places; impracticality to use modern machinery; limited amount of irrigated lands and lack of irrigation projects; lack of manpower; lack of know-how of existing manpower on modern production techniques; aged farmers and manpower; lack of extension services; abandoned agricultural land requiring high rehabilitation costs; land fragmentation; high cost of inputs; the climatic conditions of the region: severe spring frost in some years and floods in some other years (specific to the Hermel region); high level of urbanization (specific to the Metn-Kesrwan region).

Strengths of the agricultural sector: fertile land; availability of water; favourable climatic conditions; early maturity of the crops and possibility to earn the high prices of the early seasons (in some of the regions).

The weaknesses of the agricultural sector could be overcome through:

- The development of markets, in collaboration with municipalities and cooperatives
- Finding solutions for the land tenure system and for the land fragmentation; reducing taxes on properties
- Sustainable use of water resources; building dams to increase the area of irrigated lands thus reducing the production costs linked to pumping underground water and preserving this water as a reservoir for the future; dams would also contribute to the reduction of the flood risk
- Extension services and capacity building to farmers to improve yield, reduce production costs and find new markets
- Processing units and refrigerated stock houses
- Sustainable development of intensive agriculture under greenhouses (wherever possible)
- Development of apiculture; development of carob (*Ceratonia siliqua*) plantations and other agro-forestry species and activities, in the regions where it is possible; encouragement of floriculture, aromatic and medicinal plants (mainly sage and oregano)
- Development of a management plan for forests and other wooded lands; development of the rangelands; encouragement of sustainable grazing of goats or other livestock in forests and other wooded lands as a tool for forest fire prevention and for increasing the incomes of the local populations
- Development of ecotourism, agri-tourism and other forms of sustainable tourism in mountain areas
- Organization of the fruits and vegetables market places, wholesale markets
- Organic farming
- Support to the animal production sector
- Development of the food industries sector
- Implementing an "AOC" (Appellation d'Origine Contrôlée) for the protection of the local products
- Encouragement of small house-industries and handicrafts with the appropriate marketing chains
- Encouragement of the work of the cooperatives and development of new specialized cooperatives (packing, cooling, marketing, etc.) in cooperation with municipalities
- Providing the farmers with health insurance or coverage system (social security) and retirement plans; in addition to special funds for reimbursement in case of natural disaster.

The strengths and weaknesses of the PNTD activated processes

The initiation of the implementation of the PNTD process in the pilot areas was characterized by its **transparency**. The meetings with the different stakeholders have led to the identification of the strengths and weaknesses of the process in the following way:

a. At the local or micro level

Strengths

- The cooperation, participation, openness towards each other, exchange of know-how and high level of responsibility have contributed to the **reinforcement of the democratic practices** through communication and dialogue among the partners.
- The concept of **working for the benefit of a territory** rather than for one village plays a very important role in the local equilibrium through development, common interest and social solidarity.
- The process has contributed to the **identification of the real needs** of the region in a very pragmatic and realistic approach.
- The participation of **stakeholders from different levels**, including people with high competencies and specialists in several fields of expertise, has contributed to a better identification of the territorial characteristics, potentialities and constraints.
- The participants in the different territories have given a **high priority** to the development of **agriculture** through extension services, better production and marketing. Priority was also given to the development of ecotourism and all its related activities.
- The process has contributed to a better understanding of the strengths and weaknesses in each zone along with the identification of beneficial projects and the **need for regional planning**, while differentiating between development needs and required management competencies.

Weaknesses

- The participants have expressed their **doubts on the feasibility and the implementation** of the projects. This lack of confidence is mainly caused by the failure of most of the previous projects, studies and research activities that aimed at sustainable development but were never implemented.
- The local communities were very keen on including non-agricultural projects or components, like solid waste management and sewage systems, in the elaborated projects, while the facilitators were focusing on agricultural related projects and activities.
- The **lack of knowledge** of the local stakeholders about the objectives, orientations and projects of the donors and funding agencies.
- The municipalities expressed their **fear of not being able to raise the necessary funds** to fully implement the projects, or to have to complement them with funds from their own budgets.

b. At the country or macro level

Strengths

The strengths of the process are mainly linked to the **importance of the process itself** and its direct impact on mountains, if properly applied, and to the devotion and **conviction of the project team**.

- The agricultural strategy and other strategies and policies at the level of the Ministry of Agriculture or at the national level aim at providing solutions for the crisis that mountains are going through.
- The project team is familiar with the strategy and its components.
- Despite the fatigue of local people for such processes, they were ready to embark in the process.
- The process **has initiated a dialogue** among the actors in the different regions.
- Concerned actors and stakeholders in the different regions were able to **think together** and **decide on some priorities** related to the agricultural sector in their regions.
- The Ministry of Agriculture has provided the team with the necessary **institutional support** to undertake the work.

Weaknesses

- The agricultural sector is suffering from severe problems linked to national and international issues.
- The current economic situation and the severe **budget restrictions hinder the involvement of the MOA** in the implementation of the PNTD, in the development of proposed projects and in the recruitment of new personnel (guards, extension officers, technicians and engineers).
- Rural people are fed-up with sterile projects imposed on them and are no longer ready to embark on new initiatives.
- Even if the PNTD is implemented and the rural people are willing to work on future development plans for their territories, the **lack of budget** from the Government and the lack of financial assistance from foreign sources hinder the process and increase the level of disappointment of the rural populations.
- The **Agricultural Strategy** is still **not fully implemented** yet.
- The PNTD being a long process, it should be **implemented with existing and on-going policies**.
- The PNTD approach would not be successfully implemented if it is perceived as another unsustainable project, and if it is not accompanied by any development initiative, and does not lead to the implementation of any of the projects proposed in anyone of the territories.
- The PNTD approach should be implemented in a way to **avoid** the continuation of the **multiplicity of efforts** and the scattering of mountain related issues between several governmental and non-governmental authorities with the dramatic lack of cooperation that does not contribute to the stability of the mountain areas (decrease of migration rate; slight increase of income; slight increase of level of satisfaction of rural communities).
- The PNTD should better be implemented with the direct **involvement of the Rural Development and Natural Resources Regional Services**.
- The **capacity building** of the project team was not given the appropriate time allocation.
- The project team **did not have** the necessary **technical and financial support** to organize meetings and workshops in a very efficient manner.

6. Conclusion

The PNTD and SARD-M Project could be used as **policy tools to enhance the integrated management of the mountain regions**. In order to enhance the strengths of the process at the micro and macro levels, the following **recommendations** could be taken into consideration for a further implementation of the PNTD approach at the country level, in other mountain and non-mountain territories:

- The staff, engineers, extension agents and decision makers of the **MOA** (and other governmental institutions) should be **more involved in the implementation** of the PNTD and aware of the SARD-M principles; capacity building of actors to be involved should take place prior to the implementation; PNTD and SARD-M principles should be appropriated at the highest level of the MOA and considered as the baseline for any future development strategy in all related sectors.
- In order to **reduce the overlapping** of activities proposed and implemented by the different stakeholders, and to increase the efficiency of such initiatives, mountain areas related committees could be established at the following levels:
 - *Regional level:* involving all the stakeholders in a given region and moderated by the Regional Head of Service of Rural Development and Natural Resources
 - *Ministry level:* involving all the experts in the MOA working on issues related to mountains and rural areas (from the different directorates); the Regional Heads of Service of Rural Development and Natural Resources would also be members in the committee and would help in communicating the concerns of the local communities to the MOA; this committee would be chaired and moderated by the Director General

- *Decision-making level:* involving decision makers and experts from the different ministries, public and private organizations, and national and international NGOs.
- Before the implementation of the PNTD, **some pilot projects** proposed by the local stakeholders should be financed and implemented. This would strongly contribute to increase the confidence of the stakeholders in the PNTD approach.
- **In-depth analysis of the concerned stakeholders** in the different territories should be undertaken in order to identify the role that each partner could play in the development process.
- The PNTD should be implemented through the **coordination between all the concerned stakeholders**. The MOA team would fulfil the role of moderators and lead the process.
- The **negotiation capacities** of the local stakeholders should be further built for a better coordination and cooperation, and a better elaboration of development projects based on a participatory approach.
- The local stakeholders should be **better educated, sensitized and trained** by:
 - Reinforcing the education at school and youth levels on the importance of the mountains, the threats, the vulnerabilities, the specificities, the opportunities and the challenges.
 - Putting in place training sessions on the sustainable management of the mountain regions and their territorial specificities, for the different concerned stakeholders: local populations, landowners, politicians, etc.
 - Involving the tourism and leisure professionals and the user groups in the conservation of the mountains and their territories and the conciliation of the uses through raising the awareness of the users on issues like the application of codes of conduct, quality charters and quality labels.
- The Social Territorial Agreements should be prepared by all the concerned stakeholders who would share the common vision of their territories; **this vision** would be **appropriated** by all and proposed to donors for implementation of projects and activities.

The PNTD and the elaboration of social territorial agreements in all the different territories and regions of the country could strongly contribute to overcoming the constraints of the territories and better exploit the potentialities. This would also contribute to the reinforcement of the concerned institutions for a more efficient implementation of strategies and policies and a better answering of the needs of the local populations. The elaborated social territorial agreements would provide the necessary guidance for donors and policy makers to channel the money where it is most needed and where it would better contribute to the sustainable development and sustainable livelihood systems.

The Agricultural Strategy would strongly benefit of the lessons learned during the pilot implementation of the PNTD. These lessons could be further extended to other ministries and other strategies and policies, using the territorial approach. They would also strongly contribute to the preparation of a mountain and rural areas development policies along with the compilation of all the on-going efforts into a national sustainable development strategy and policy.

The integration of the different policies in the PNTD process could only be useful if the specificities, vulnerabilities and opportunities of each territory are taken into consideration. This integration is almost impossible to achieve in all the development sectors, as each institution and organization has its own development tools. However, the adoption of the PNTD approach and SARD-M principles by the Ministry of Agriculture would increase the efficiency of the activities implemented and policies developed.

Studying the specific characters of the territories would mean first to understand the importance of the safeguard and the preservation of their unique cultural, natural, agricultural and religious patrimony, in a privileged environment, with an exceptionally rich biodiversity and a collective memory going beyond

the limits of the region to those of the whole country. The preservation and sustainable management of the mountain territories does not only concern the local inhabitants and users, the tourists, the visitors and the sports enthusiasts, the religious entities and the decision makers. It concerns all the future generations of the world.