# LAND USE PLANNING AND WATER RESOURCES MANAGEMENT FOR SUSTAINABLE DEVELOPMENT PLANIFIKIMI I PËRDORIMIT TË TOKËS DHE MANAXHIMI I BURIMEVE UJORE PËR NJË ZHVILLIM TË QENDRUESHËM

#### ENRIKO CEKO

Universiteti Sevasti dhe Parashqevi Qiriazi, Tiranë, Shqipëri Email: enrikoceko@yahoo.co.uk

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#### PERMBLEDHJE

Në Shqipëri nuk ka përvojë për aplikimin e këtyre konceptëve dhe në përgjithësi situata manaxhohet me sistemin marrje vendimesh nga nivelet e larta, kombinuar me zbatim e vendimeve në nivelet e ulëta, në një kohë që përvoja më e mirë ndërkombëtare tregon se pjesëmarrja e publikut në planifikimin e përdorimit të tokës dhe në manaxhimin e burimeve ujore është një sistem dhe tëknikë që rezulton shumë e suksesëshme si në përdorimin e këtyre dy burimeve shumë të vlefshme natyrore, ashtu edhe në shuarjen e konfliktëve për tokë dhe ujë, në një kohë që të dy këto burime janë përherë e më shumë të ndjeshem ndaj rrezikut të shpërdorimit, dëmtimit, ndotjes, korrupsionit në manaxhimin e tyre, etj. Për të aplikuar këto teknika është e nevojshme që të ketë një riorganizim serioz të strukturave vendimmarrëse, edukim i qytetarëve në lidhje me përdorimin dhe manaxhimin e këtyre dy burimeve, përmirësim dhe zbatim i një legjislacioni të përshtatshëm sipas kushteve aktuale të vendit dhe zbatim sa më i shpejtë dhe cilësor i projektëve dhe i planeve të veprimit në të tëra nivelet, kombëtar, rajonal, komunal, etj. Gjetjet e këtij punimi kanë vlerë përdorimi nga të tërë të intëresuarit, individë, institucione publike dhe privatë, por kryesisht i adresohet vendimmarrjes–shoqërisë civile për përmirësimin e gjendjes së krijuar nga mungesa e metodave, sistemeve, teknikave të manaxhimit dhe përdorimit të burimeve natyrore, kryesisht tokës dhe ujrave, për të siguruar një perdorim të qendrueshëm tyre.

Fjale kyçe: Planifikimi i përdorimit të tokës, Manaxhimi i Burimeve Ujore, Zhvillimi i Qendrueshëm.

#### SUMMARY

In Albania there is lack of experience on application of these concepts and generally the top-down decision making approach has been applied combined with some forms of bottom-up decisions. On the contrary, the best intërnational experience shows that public participation on land use planning and water resources management results to be very successful not only for the sustainable use of these very valuable natural resources, but in declining also many conflicts for land and water. Time has shown that both these resources are ever more vulnerable against the risk of misuse, damage, pollution, and corruption in their management, etc. To apply these principles and tëchniques it is necessary a serious re-organization of decision taking structures, citizens' education relatëd with the use and management of these resources, improvement and application of a suitable legislation according to the actual country's conditions. The implementation as soon as possible of quality of projects, action plans at all levels, including national, regional, communal, etc, are paramount. Findings of this study have an applicable value for all intërestëd parties, individuals, public and privatë institutions. But they are mostly beneficial for the decision makers and the civil society organizations that need appropriatë methods, systëms, and tëchniques for land and water management that support sustainable development in the country.

Key words: Land Use planning, Water Resources Management, Sustainable Development.

#### INTRODUCTION

This study shows that in Albania the methods, systems and techniques of land use planning and water resource management for sustainable development are not applied in a concretë and suitable way. Some research, meetings and discussions with specialists in regional, communal and village level have been undertaken for this purpose. This study could be beneficial because shows the real situation related to land use planning and water resources management and attract the attention of high levels of decision making under real conditions and provides ways and tools for improvement. The main objective of the study is to develop a structural framework and the necessary guidelines for application of methods, systëms and techniques needed for sustainable land and water use management.

#### MATERIAL AND METHODS

The main theoretical material used for the study is the FAO Guidelines for Land Use Planning 1993 and other materials, as well as meetings, interviews, discussions with specialists and work visits related to Land Use Planning (LUP) and Water Resource Management (WRM). Information taken from meetings, intërviews and discussions has been compared with the methodological framework to evaluate the real current situation in Albania.

Practically, work visits and intërviews have taken place during 2006-2009 in about 40 water users associations and farm associations all around the country, as well as discussions and intërviews with several chairman of various communes, the chairman of Farmers Association of Albania and chairman of Agricultural Specialists (see the questionnaire at the end of the article).

### **RESULTS AND DISCUSSIONS**

The main result of this study is that there is much confusion in Albania in terms of decision making at all levels dealing with Land Use Planning and Water Resource Management. There are no strong relations-links between the decision making process at national, regional, communal and village level about LUP and WRM and how could influence these the sustainable development the country without in compromising environmental quality. Albania has no experience in application of these concepts. Generally the situation has been managed with the systëm of decision making from above, combined with rudimental application of decisions from lower levels, when the best international experience shows that public participation in LUP and WRM is necessary to help resolve conflicts for land and water and minimize the risks of misuse, damage, pollution, corruption, etc, in their management.

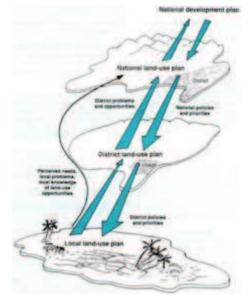


Figure 1. Two ways links planning in different levels (1. p.6)

Applying these techniques is necessary to have a serious re-organization of decision making structures and assist citizen's education in issues relatëd to LUP and WRM, improvement and application of a suitable legislation according to the actual country's situation and application as soon as possible of qualitative projects and action plans at all levels, national, regional and communal.

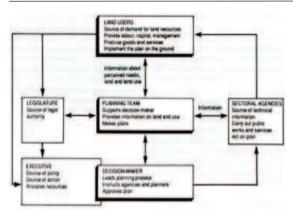


Figure 2. People in planning (1. p.9)

The aim is to select and apply in practice those forms of land uses and water resources management methods, techniques and practices that fulfill better human needs for protecting resources for the future. Movement force in that process is the need to improve resources management, dictated by changing conditions (2). A large number of people involved in the process of land use planning and water resources management, mainly at local level have not a sufficient acceptance of needs for change in use of land and water resources to prevent undesirable changes. There is a lack of desire in politic level and there is a lack of abilities to apply in practice land and water management and use plans (5, 6, 7, 8).

As population and human aspirations increase, land and water becomes an increasingly scarce resource, calling for land-use planning and water resources management. Land-use planning and water resources management are important to mitigate the negative effects of land and water use and to enhance the efficient use of resources with minimal impact on future generations (2).

Effective land-use planning and water resources management often involves local communities, scientific information on land resources, appropriate technologies, and integrated evaluation of resource use, but in local conditions these involvements are subject of misuse, corruption and often they are not existing at all (5).

The process should include knowledge of today future needs for land and and water. identification and solve of individual's and conflicts community and between actual generation's needs and future generations needs, finding of sustainable options and selection of those that fulfil identified needs planning to bring desirable changes and process of learning from the experience, but current situation shows that there is not a process at all. There is not any public information about any study on future needs for land and water, there is not any initiative for land and water conflicts resolution at national level and there is not any official initiative on learning from experience (6).

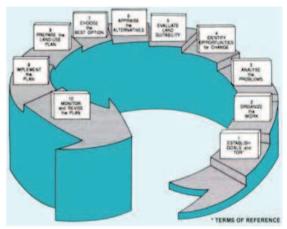


Figure 3. Stëps in LUP (1. p.12.)

Within the objectives of this study the efficiency of productivity growth on land and water is seen in the context of food security, employment, inequality reduction, attacking absolute poverty, and bringing and building sustainability meaning the fulfillment of today's needs without compromising those of future generations. In fact, productivity in agriculture (which is the main sector using land and water resources in Albania) during the last 20 years has not shown any significant increase, while fertilizers use per land unit has been reduced by 15% in 2009 compared with 2006, and land cultivation has been reduced by 35.000 ha in 2009 compared with 2006 (3).

Legislation for land and water is at unacceptable levels, not only in technical aspects, but in the

way how the legislation deals with these resources. There is a lack of legislation relatëd to land and water, specifically in management aspects and law application. In the Penal Code of Albania there are only 8 or 9 articles about land misuse, water misuse and environmental pollution, compared with the huge legal framework of EU, where Albania is looking forward in its integration process (4).

At national level the plan for LUP and WRM should have a management policy, balancing the demand toward different sectors of the national economy. national plans and budget development, identification of projects and resources. localization for development, coordination of sector agencies involved in the land and water management process, sustainable legislation in such subjects like property rights, land and water use and protection, etc (1), but according to the information the public has, there is not any management policy for land and water use at all.

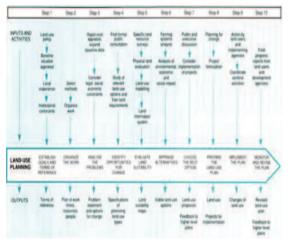


Figure 4. Steps of LUP, inputs, activities and outputs (1. p.13)

At regional level the plan for LUP and WRM should have development projects, because this level is a bridge between national and communal level, and should include treatment of national plans at regional level, solving conflicts between national and regional interests, defining of needs for infrastructure improvement of resources use and market facilities, development of procedures and guidelines for land and water management improvement (1,2). However, due to many conflicts between the National Council of Territorial Regulation and municipalities (i.e. Tirana, Durrës, Korça municipalities have open conflicts for land and water) it is evident that there is a lack of compromise between national and local level of decision making (6).

At communal and village level the plan for LUP and WRM should make use of citizens' knowledge and their contributes for problems and conflicts solving, mainly for land and water, collection and use of information for communal and village plans creation, transfer of these plans at regional and national level to be linked and integrated with national plans. Localization of different land and water resources, and defining their use and management strategy will help coordination efforts of different agencies dealing with to land and water management (2).In practice however, there is a lack of contribution of citizens on conflicts resolution and lack of information for communal and village plans on LUP and WRM, etc (6).

Contents of the LUP and WRM plan for sustainable development at all levels of decision making should have an Executive Summary. Terms of Reference, identification of land and problems, Land-use and water water management types and management, Land and water suitability, Appraisal of alternatives, Recommended changes in land use, The land-use plan, Implementation plan, Procedures for monitoring and revision and Supporting information (1, 2). In most of visits we had in about 200 irrigation schemes at communal and village level during the 2006-2009 period, as well as during the discussions with specialists at high and low level, results showed that there is lack of contents of the land use plan and water resources management plan and in several cases there was not a plan at all. As a result, since at communal and village level there is a lack of documentation, materials and actions as për above, the decision making process depends on

what high level decision making decide to do with resources (5, 6, 7, 8).

Land use planning encompasses the following disciplines, Architecture, Environmental planning, Landscape architecture, Regional Planning, Spatial planning, Sustainable Development, Transportation Planning, Urban design, Urban planning, Urban Renaissance, Urban renewal, etc. As a matter of the fact in Albania there is a lack of specialists in those fields and sciences and this is another obstacle for application of land use planning and water resource management methods, systems and techniques (5, 6, 7).

Land and water resources are essential for farming, grazing, forestry, wildlife, tourism, urban development, transport infrastructure, and other environmental functions. The increasing demand for land and water, coupled with a limitation in its supplies, is a major cause for more conflicts over land and water use throughout the world and in Albania too (5, 6, 7, 8).

Community groups may promotë and maintain, in cooperation with statë and national agencies, systëms for the LUP and WRM, but there is not any initiative or organized public participation on this issue (5, 6, 7, 8).

## CONCLUSIONS

This study identified the following specific needs and objectives:

- Facilitate allocation of land to the uses that provide the greatest sustainable benefits and that promote the transition to a sustainable and integrated management of land resources.
- Define private property rights, and the economic role of small farms in agriculture and rural development.
- Develop policies which will result in the best use and sustainable management of land.
- Improve and strengthen planning, management monitoring and evaluation systems.
- Strengthen institutions and coordinating mechanisms.

• Create mechanisms that facilitatë the active involvement and participation of communities and people at local level (9).

## Long-term objectives identified for LUP & WRM:

- Prevent and as far as possible reverse ongoing degradation of the Albanian eco-systëm.
- Improve living conditions of rural people.
- Encourage positive involvement of rural people in managing the environment (9).

## Immediate objectives identified for LUP & RWM:

- Manage natural resources in a sustainable manner.
- Increase productivity from land and water.
- Strengthen community participation.
- Improve socio-economic conditions for disadvantaged groups, especially for women's activities (9).

Questionnaire	Yes	No
	(%)	(%)
Does the local government have a clearly formulatëd objective and / or problem to be solved?	13	87
Does the country have an enabling policy and regulatory environment?	24	76
Does the country have effective institutions at local, sub-national, and national level?	43	57
Do people have accessible knowledge base of the physical conditions including alternative land use and water management?	36	64
Does the socio-economic conditions and legal framework for LUP and WRM exist?	9	91
Do the stakeholders have a platform for negotiation?	2	98
Do we have a clear and consistent policy for sustainable land use?	18	82
Does the government failed to address the legitimate goals of land users and to involve them in the planning process?	35	65
Does the government failed to address all issues relevant to the problem and to integrate all the necessary disciplines and	33	67

activities?		
Do you think land and water use	27	73
regulations are inadequatë or		
ineffective?		
Do you think there is a lack of	19	81
well targeted incentives, or		
inappropriate incentives?		
Do you think there is a lack of	78	22
funds?		
Do you think there is a lack of	42	58
access to information, tools or		
training to make informed		
decisions?		
There is a sufficient acceptance of	15	85
needs for change in use of land		
and water resources to prevent		
undesirable changes?		
There is a desire in politic level	16	84
and abilities to apply in practice		
land and water management and		
use plans?		
Does effective land-use planning	19	81
and water resources		
management practices exist?		
Do we have conflicts between	99	1
National Council of Territorial		
Regulation and municipalities and		
communes and villages?		
There is any initiative or	11	89
organized public participation on		
the issue of LUP& WRM?		

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