

Participatory Irrigation Management in Albania

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Abstract

Albania is located on the eastern shore of the Adriatic sea, south of former Yugoslavia, north of Greece, and west of Macedonia. It is divided into three agro-ecological zones based on climate, soils and vegetation: the fertile coastal plains, the intermediate hilly region, and the non-arable mountain zones. Annual rainfall varies from 800 to 2,000 mm in coastal areas to 1,600 to 2,000 mm in the hilly regions and up to 2500 mm in the mountains. Rainfall is concentrated mainly in the winter, and less than 20 percent of annual rainfall occurs in the six-month period between April and September. Crop water deficits between June and August range between 400 and 500 mm that cannot be supplied from soil moisture, making irrigation necessary for adequate crop growth, especially in the coastal areas. Agriculture is the leading sector of the Albanian economy accounting for approximately 35% of the GDP and 60% of the total employment.

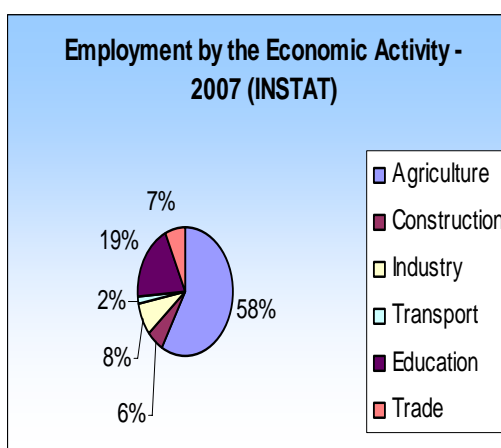
Introduction

Albania is located on the eastern shore of the Adriatic Sea and south - west of Balkan. It is divided into three ago-ecological zones based on climate, soils and vegetation: the fertile coastal plains, the intermediate hilly region and non-arable mountain zone.

Summer crops, such as vegetables, potatoes, maize and watermelons, can only be grown if irrigation water is available, where as the yields of perennial crops, such as fruit trees, alfalfa, can be significantly increased under irrigation.

Water sources. Albania is a water-rich country, compare with other countries in Central and Eastern Europe. Total run off equals on average 25.7 billion m³ per year, of which 2 percent or 588 million m³ can be stored in 600 irrigation reservoirs.

Drainage is important in preventing flooding, erosion and water logging in winter, particularly in the coastal plain. The construction of irrigation and drainage schemes was given high priority under the socialist regime and by mid-1980s irrigation and drainage schemes covering about 420,000 ha and 280,000 hectares respectively were constructed.



Irrigation Infrastructure: System size and Fragmentation. Irrigation systems are highly fragmented since 55 percent of the irrigation command area is supplied by small systems covering less than 5,000 ha. Some 600 dams and reservoirs supply water to about 184,000 ha and 639 pumping stations with 1, 250 electrical pumps provide lift irrigation from river and lakes for about 78,000 ha. Run-off-river schemes account for water on some 160,000 ha, with groundwater supplying remaining 10,000 ha of land under irrigation command.

Method of Irrigation and Drainage infrastructure management

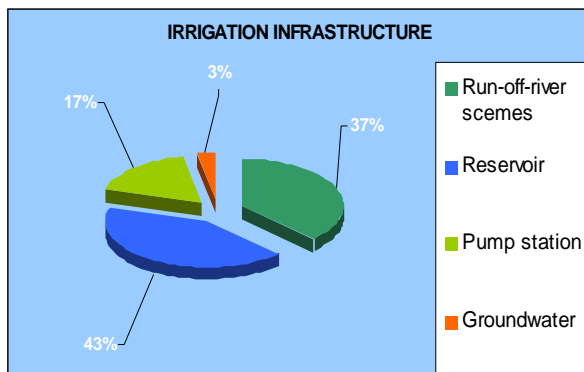
Before 1991 the agrarian structure in Albania was fully collective. The land was farmed by about 500 agricultural cooperatives, which comprised approximately 70 percent of the irrigation land and 150 state farms. The systems were centrally administered by Land and Water Department of the Ministry of Agriculture through public enterprises, namely Water Enterprises (WEs) and Construction Enterprises (CEs) at the district level.

After 1991 about 300,000 ha of irrigation systems and 153,000 ha of drainage systems become non-operational. In this time in Albania started rapidly land privatisation. As a result more than 400,000 small farm with an average of about 1.4 ha.

The small private farms with insufficient land, in many cases have fundamentally changed the character of agriculture and the role of irrigation. As result the WEs were not enable to distribute water to the large number of water users.

Transfer of irrigation management to Water Users Association (WUA). In response to the acute crisis in the irrigation and drainage sector, the Government of Albania adopted the policy to transfer the operational responsibilities of secondary irrigation canals to water users through Water Users Associations (WUAs), with the operation and maintenance of the primary canals and irrigation reservoirs remaining the responsibility of the state-owned Water Enterprises.

In 1998, consequently, the Government of Albania decided that the responsibility for operation and maintenance of the primary irrigation facilities should also be transferred to water users through the Federations of Water Users Associations (FWUAs). As the responsibility for O&M of irrigation systems are transferred to the water users, the state-owned Water Enterprise are restructured into Drainage Boards whose tasks are confined to drainage management and river and flood protection.



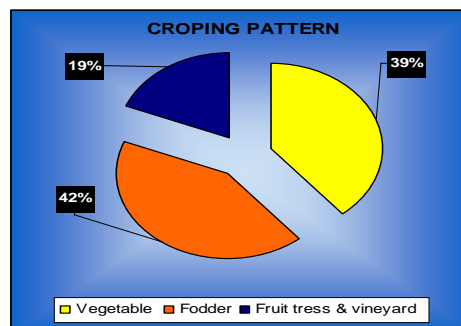
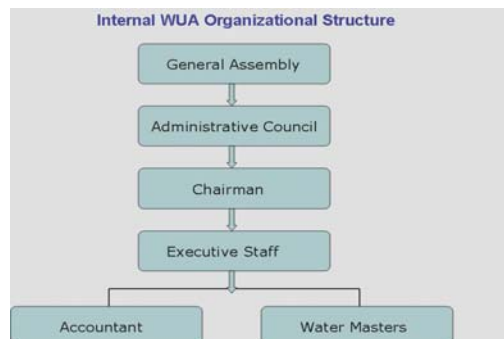
Result of structural development of WUA

The Legal Basis. The legal basis for both WUAs and federations is the Irrigation and Drainage Law, number 8518 of 30/7/99. The Law permits the formation of WUAs, and where they should be registered and the process for transfer of management responsibility for irrigation. The Law covers both WUAs and Federations. The Law covers regulation, supervision and control, but no government support is obligatory under Law. In the 1994 law, the rehabilitation was a prerequisite for formation of WUAs, but this obligation has been removed, and now the prior formation of WUAs and management transfer is one of the preconditions for rehabilitation under the demand-driven procedures operated by the second project.

Actually the GoA, with the support of the WB, is working for amendments of the low 8518 date 31.07.1999. To have a better performance of responsible institution and better functioning of irrigation and drainage systems it is necessary that this low to be amended. The issues that need special attention are: a) drainage boards and WUAs statutes. b) irrigation service fee and coast recovery. c) reservoirs operations. d) participation of Local Government in PIM.

Organisation al Characteristics. The WUAs are accountable only to their members. They are governed by an Administrative Council elected for a two year period at a general meeting of all members. Chairman appoints the Executive Council, which comprise the Treasury, Secretary and water masters who will be responsible for the day-to-day management of the WUA. Usually the Chairman is an elected member of the Administrative Council or general meeting. The three members

of the Executive Council are generally salaried appointments, although salaries are low, and often paid only for the irrigation season, depending on the size and success of the WUA. The Chairman of the Executive Council may also appoint salaried water masters, these are generally seasonal appointments. These are not generally professional grade appointments as the schemes under individual WUA control are generally small simple open channel, gravity distribution systems, 500 to 1,000 ha extent, without scope for sophisticated management.



Federations are structured similarly, however, membership is defined as the individual WUAs in the system who nominate a representative, generally their Executive Council Chairman. Federations have the same executive council members, but are more likely to employ water masters, having a long length of main canal to manage. The federation's executive council members are often university graduates (agronomist, engineer, accountant), and federations are more also likely to employ watermasters with experience of irrigation management as former water enterprise staff.

12 Federations are established in Albania. Currently, nine of them are in function and seven have turned into big WUAs.

Structure: Water User Associations are based on hydraulic units, either small independent schemes, or one or more secondary canals in a larger system. WUA service areas average 500 ha Federations of WUAs operate the headworks and primary distribution of larger schemes, generally about 5,000 ha Federations are formed on separate schemes, none operate more than one scheme, but in some cases federations manage single main canals in a system comprising two or three such canals.

WUAs and federations have full and sole responsibility within their jurisdictions. However, WUAs cooperate with the federations of which they are members, and in some locations, as noted above, there may be more than one federation in a large system.

National Union of SHPU and FSHP. National Union of SHPU and FSHP is established in 2003 at the initiative of WUAs and FWUAs to represent them to different institutional levels for solution to their problems.

Regulatory Framework. Both WUAs and federations are authorised under the Law to set their own service charge, there is no involvement of government. The WUAs are encouraged to set a full and adequate budget allowing proper canal and drain maintenance, as well as covering administrative and staff costs. However, with the schemes newly rehabilitated before handover, the actual maintenance requirement in the first few years is low. And additionally, the hardest task facing WUAs is collection of service charges, so there is naturally a tendency to set the service charge at the minimum.

The 1999 Law establishes the Ministry of Agriculture as the regulatory and supervisory body for WUAs and federations. A department is established within the Ministry that carries out (a) physical and financial audit of WUAs; (b) analyses and solves conflicts between the parties. During 2005-2009 the audit group has audited 220 WUAs and FWUAs. The number of audits has increased from year to year and improvements have been noticed in keeping the technical and financial documentation. Measures have been taken for WUAs that have been found with financial breaches, responsible persons were removed or sued.

WUA Support Programme. Publicity and awareness campaigns In order to make farmers awareness of WUA membership and its importance, a wide publicity campaign is undertaken, organising meetings at village level where farmers discussed problems they faced in irrigation. Pamphlets, brochures, posters, etc were distributed showing the purpose of organising into WUAs and rights and tasks that farmers have. They explain the new way of organisation.

Formulation and adoption of internal rules and regulations. WUA functions in accordance with the Law, but it needs some rules within itself. For this reason, WUAs have prepared internal regulations to arrange their everyday activities.

Transparency and accountability: All activities of WUAs should be transparent so that farmers put their faith in them. The General Meeting should be published in order to increase participation of farmers in finding solutions to problems. Elections of steering bodies of WUAs should be as transparent as possible and the elected people should be the most voted from WUA members. All accounts of WUAs should be reflected in noticeable places so that farmers know where their money go.

Irrigation service fee collection: Farmers, WUA members should pay irrigation service fee because this money serve for operation and maintenance of irrigation network. Payment in advance of water charge irrigation fee or payment of a fixed tariff to serve for maintenance. Publishing lists of farmers who have not paid the irrigation fee in noticeable places. Information and collaboration with the local government to incentive payment of irrigation service fee.

Operation & maintenance of tertiary canals: Maintenance of tertiary canals is responsibility of farmers. In some cases this did not apply, that is why awareness campaigns were undertaken with farmers of tertiary units in order to find a solution for their maintenance.

Improve water management activities: Training of water masters for timely and quantitative delivery of water. Preparing daily and weekly schedules in accordance with farmers needs.

Social Impact: (i) Farmers attitude to WUA revealed interesting and satisfactory 60% of population lives in villages and have seen good examples of irrigation management through WUAs. For this reason, they do not hesitate to establish WUAs in their areas. (ii) Benefit of the project – production increase 2-3 times higher than without WUA and rehabilitation. (iii) Farmers are aware; join the WUA, order water and pay – this is exactly premise of the projects: ‘ to remove irrigation as a constrain to agriculture. Farmers that have benefited from rehabilitation of canals and manage irrigation through participation are convinced that they should act in accordance with the law for irrigation and drainage in order to get water in time and quantity the plants need.

Rationale for Water Resources Management Project (2005 –2009). The Government of Albania and the World Bank agreed that a third project would be required as a clear need to expand the initiatives taken under the first and second project across the county and to ensure the sustainability of the irrigation and drainage sector by continuing and completing the essential institutional reform.

The overall sectorial goal of the Project is the increasing of agricultural production and the establishment of sustainability of the agricultural sector through the transfer of irrigation management to WUAs and FWUAs and drainage management to Drainage Boards.

Particularly, the Project aims to pursue nation-wide promotion of the concept of further development of the role of WUAs and the re-alignment of the public sector involvement in the irrigation and drainage sector, also directly contribute to institutional sustainability by increasing equity and transparency in the distribution of irrigation water.

Project components, The Project has the following four components and corresponding sub-components: (i) System Rehabilitation of reservoirs and headwork's, irrigation canals, drainage structures and flood control works, including design and supervision. (ii) Institutional Support to WUA, Federations of WUAs, Drainage Boards. (iii) Technical Studies to improve irrigation and drainage designs as well as environmental management.

During this time were included 24 districts, and established 489e WUAs and rehabilitated 50,000 ha in irrigation, 34,000 ha of drainage and 35 Dams.

During the I,II and III projects have been established more than 489 WUA. Those WUA have been supported with rehabilitation of irrigation and drainage infrastructure and some trainings of WUA staff, but they still remain far from considering “satisfactory”.

PMU, based on the requests for amendments of the law 8518 dt 30.07.1999 “On irrigation and Drainage”, undertake some urgent action toward Participatory Irrigation Management.

In October 2007, in order of implementation of this amendments, World Bank mission, recommended establishment of Water Users Organizations (WUO), based on some criteria as follows: entire hydraulic scheme, conditions of the irrigation infrastructure, larger service area (3000-6000 hectare), farmers commitment to rehabilitation, payment of irrigation service fee, relations with local authorities etc.

After approvement of amendments of Irrigation and drainage law , commenced reorganization of exiting WUA into larger WUO. WB mission approved establishment of three selected WUO, which have been supported and managed by WRMP.

Three “pilot” WUO have been established in a comprehensive way: in north part of Albania – WUO Bushat, (Shkodra district); in west part WUO Çukas, (Lushnja district); and in south, WUO Pirc, (Korça district). Command area of three WUA is 12,000 hectare, and is serving 10,000 farm families (4-10 times more than existing WUA). Each WUO is composed in average by 3-4 WUA, which includes 1-4 Communes, and 4-13 villages.

During 2008-2009 have been monitored existing WUA, and the impact that have improvement of irrigation service through WUO organization. Progress made was: (i) In WUO the hydraulic scheme was managed in the unique way, which decreased in minimum farmers disputes (the former organization, in the same hydraulic unit have been 3-4 WUA); (ii) was increased farmer participation in irrigation as an effect of financial transparency; (iii) collection of irrigation service fee was increased more than 20 times compared to former organization, and decreased debtors number as well; (iv) Farmers believed in the new organization and increased cropped area, and irrigated area as well, which was increased 30 % immediately; (v) have been increased WUO incomes and improved the readiness of infrastructure, farmers requests for irrigation have been realized 100 %; (vi) New WUO, has paid staff salaries and other financial duties, and they remain with positive balance. Three WUO are functioning as self administration enterprises.

Conclusions

1. In Albania is planned that irrigation in 80 % of the area, to be managed by WUO. In this context WRMP, after a study and evaluation of the proposed WUO, is considering the idea that in the plain area to be established some 50 WUO, with a mean area of some 4000-5000 ha. The project also estimated the establishment cost for a WUO type, which is some US\$ 120,000. In this cost are included: office rehabilitation, office furniture, computers, financial management program and other programs. An important issue is maintenance of the irrigation infrastructure, especially maintenance of the tertiary, which lead to immediate necessity to support those WUO with an excavator.

2. Economic Impact (i) Irrigated crops – almost doubled. Upon rehabilitation of canals, farmers are cultivating irrigated crops causing changes in the cropping patterns: 42% fodder, 39% vegetable and water melon, 19% fruit trees and vineyards. Cereals are occupying an inconsiderable place. (ii) Gross farm production increase 40%. Based on monitoring surveys of 2009, it results that agricultural production continuous to increase. (iii) Cash farm benefit increase 250%
The same survey states that the cash farm benefit increase 250%, EIRR is 43%.

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