



Improving participation and cooperation on water management: Experience from farmer-managed systems in Albania

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Abstract

Since 1995 the Ministry of Agriculture and Food in Albania, with the support of the World Bank, commenced a programme of rehabilitation of the irrigation and drainage systems. As part of the process the management, operation and maintenance of the irrigation systems have been transferred to water users associations. A significant part of the transfer programme is to build capacity, both within the newly formed water users associations and within the irrigation community in general. The capacity building requirements cover institutional, technical and financial issues and are essential if conflict over access to, and distribution of, irrigation water is to be avoided. There is visible evidence that conflict is taking place within systems, with damage being done to head end control structures by tail end farmers, disputes within villages and between farmers, and representations by farmers to local government for resolution of water related disputes. Improved water management is seen as an essential part of the conflict resolution process, with the objective of providing an adequate level of service, comprising reliable, adequate, timely and equitable supplies of water to all water users within the command area. Training and capacity building are integral parts of the strategy to achieve these objectives, incorporating awareness training for water users, and training of Water Users Association staff and Administrative Councils. This paper describes the steps taken to establish and implement the training programme and its impact on identified areas of conflict, participation and cooperation.

Key words: Water management, Water Users Associations, Albania, training, capacity building, conflict resolution, performance.

Introduction

One of the main characteristics of Albania is the variable distribution of rainfall in time and space, with 80% of the rainfall falling in the winter months. The variable pattern of rainfall necessitates drainage during the winter and irrigation during the summer months from April to September. In addition, in recent years, crops such as wheat and barley have been replaced with more water-intensive crops, including vegetables, alfalfa and maize.

The socio-economic changes that occurred in Albania during the last 10-15 years have had a negative impact on the irrigation and drainage sector ¹. As a result of this situation the irrigation and drainage systems had fallen into disrepair and rehabilitation had become necessary. For this purpose, the First Irrigation Rehabilitation Project (1995 till 2000) was funded by the World Bank and European Union 2/7. Through the project about 91,000 hectares of irrigable land were rehabilitated in 7 districts, and drainage systems were improved for about 110,000 hectares of agricultural land. Some 100,000 farming families benefited from the project through increased agricultural and livestock production. During this period, about 180 Water Users' Associations were established covering an area of some 75,000 hectares.

The positive impact of the first project served as a basis for the Second Irrigation and Drainage Project (SIDRP, 2000-2005)². The

Second Project expanded its activities over a further 13 other districts, with increased emphasis on establishing viable water users' associations ³. Training and capacity building are seen as key components of the Second Project, with the aim to strengthen the newly established Water Users Associations in order to improve the level of service provision to water users.

Viable Water Users Associations (WUAs) are seen as central to the growth and development of the irrigated agricultural sector in Albania ⁴. The Water Users Associations and Federations of Water Users Associations are financial independent entities deriving their income from the water users, without any subsidy from government. These WUAs and Federations are now performing all duties in relation to irrigation like water scheduling and distribution, system maintenance, regulation of relations among their members, definition of water tariffs, conflict resolution, fee setting and collection, etc.

The current paper describes the role training courses have played in training and bringing together WUA/Federation Chairmen, Water Masters, Treasurers and General Secretaries, plus ordinary farmers through village meetings, in order to improve the management of the WUAs/Federations, leading to better water management, system maintenance, fee recovery and reduced conflict between water users.

Areas of Conflict

Within the WUA command area there are conflicts that are both dependent and independent of the position on the canal system. Poor maintenance of secondary and tertiary canals has been a major cause of failure to deliver water to tail-end farmers, though this situation is gradually improving with a period of stability and with increasing pressure on the WUAs to address the maintenance issue. A further source of conflict is freeloading by certain farmers who take the water but fail to pay. A campaign of naming and shaming these individuals seems to be having some effect. Within the primary canal command area there is conflict between the top and tail-end WUAs or farmers. There have been incidences of tail-end farmers destroying quite large control structures (primary canal cross regulators and measuring structures) where they believe that these structures are hindering their access to water. Alternatively tail-end farmers, or farmers in other systems located downstream, breach upstream sections of primary and secondary canals nearby drains and abstract the water further down by pumping. Tail-end WUAs are continually complaining (with just cause) about the shortage of water.

Water Users Associations in Albania

Water Users Associations were established under the Law on Irrigation and Drainage, No.8518, dated July 1999. Whilst the law and associated statutes specifies their roles, powers and duties, the Water Users Associations (WUAs) are able to formulate their own by-laws and regulations. Membership is not compulsory, and the members hold an Annual General Meeting. The activities of these associations are managed by a committee (Administrative Council) which must include a chairman, secretary and treasurer, and may have other members. Members are elected by the general assembly every two years.

WUAs are typically based on a hydraulic unit and typically command an area of between 100 and 300 hectare with 150 to 250 landholders. Water Users Associations are responsible for water management, collecting fees for irrigation services, preparing annual work plans and budgets, undertaking maintenance of the system, imposing sanctions or fines on those breaking regulations or damaging infrastructure, keeping membership and financial records and reporting activities, including the irrigated area. Water Users Associations are responsible for maintaining infrastructure in good condition, but do not take over ownership of the infrastructure.

There are currently some 404 registered Water Users Associations in Albania, with a gross service area of 252,571 hectares. Of these 211 or 52% were reported as functional, covering some 61% of the total gross service area and including

some 194,000 landowners⁵. The remaining non-functioning Water Users Associations had a variety of problems with their irrigation system, such as poor condition of the main canal, pumping problems, unavailability of water and social/institutional problems.

To be sustainable Water Users Associations and Federations have to develop to a stage where they can manage, operate and maintain their system to an adequate standard. This requires not only the continuation of the activities in order to improve the standard of service, but also the implementation of training to build their management capabilities.

The Role of Training in Influencing the Performance of Water Users Associations

In 2005 a contract was let following competitive tendering to select a training contractor to implement the Project's training programme. A further contract was let in 2006 to continue the training through into 2007. Since 2002, some 740 staff of Water Users Associations and Federations have been trained under these two contracts. Details of the numbers of staff trained during the 2002-2005 period are presented in Table 1.

During the training emphasis was laid on the day-to-day activities of the WUAs and Federations such that WUA, and Federation personnel would be able to execute their job more effectively. The training programme tried to act as a catalyst to promote changes in attitudes and development of concepts of farming as a profitable business enterprise.

The main issues which are addressed throughout the training programme have been in relation to water management practices, cost recovery issues, maintenance and institution building. In general there is a shortage of personnel skilled in water management within WUAs or Federations. Some personnel have experience of water management at farm level; very few have experience of water management at main system level. Equitable distribution of available irrigation supplies is a key objective of the WUAs and Federations. Good water management will reduce the inequity of water distribution, and generally results in an increase in overall productivity within an irrigation scheme. During the training course the issues of equitable distribution of water and possibilities to overcome the inequity are raised and discussed.

Low fee recovery levels are a major issue and problem within the WUAs and Federations⁶. The fee recovery levels need to be increased if the irrigation systems are to be sustainable in the long term. Some of the problems of fee recovery are related to the reporting process. From fieldwork it is known that the actual irrigated areas are more than the areas being reported by the WUA. Besides the above-mentioned problems, many irrigation systems

have been found to have poor levels of maintenance. In some cases the maintenance levels are so low that farmers at the tail-end of canals cannot get any water. The training programme emphasized the importance of maintenance practices in facilitating good level of service provision, and the need for WUAs and Federations to collect sufficient money from water users not just for annual maintenance but also for long-term expenditure to cover the costs of replacing structures as they deteriorate.

From monitoring and evaluation work carried out by different sources, it is apparent that the WUA membership levels are low. If the membership level is low, the total fee

Table 1. Number of Water Users Association/Federation Staff trained during the period 2005-2006 by the Training Institute.

WUA/Federation staff	5-day training courses			Total
	2002	2005	To April 2006	
Treasurers	97	71	14	182
Association chairman	115	38	74	227
Water masters	156	36	95	287
Promoters	32	-	16	48
Total	400	145	199	744
	1-day field training courses			
One-day training field courses	216	372	-	588

recovery level will also be low, and there will be insufficient money for system operation and maintenance.

From the other side, there is little experience within Albania of the concept of service provision to individual water users, and of payment for service provision. This is an important concept in market economy and one that needs, over time to be instilled in the WUAs and Federations. The fundamental principle is that the WUAs and Federations provide a service for which the water users pay; in theory if the level of service is good then the level of fee recovery will be also high. An important addition to the training programme by the Training Institute has been the 1-day field training courses carried out in various locations on discharge measurement and maintenance identification. The training was well received by the WUA and Federation personnel, and helped support the programme initiated by the World Bank to install measuring structures within irrigation systems.

During the training courses the main topics discussed have focused on issues related to conflict resolution, improved technology on water management, better farmer communications and financial control. Further effort is needed to raise the standard of irrigation management and other factors in relation to water management and system operation and maintenance. It is not possible to introduce water management practices and procedures within a community in one or two years, it is a medium term process where practices and procedures become accepted and established over time. Progress is being made on some systems, but further support and encouragement is required to get these procedures established. The continuation of training programme activities for the coming periods in all schemes will assist in this process.

Impact of Training on Reduction of Conflict

Two irrigation systems, Krutje Branch Canal and Cukas Branch Canal, provide examples where conflict over access to water is being reduced through better communication and procedures brought about through the training programme⁷. These two systems are located near Lushnje and are supplied from the Thane reservoir. The Krutje Branch Canal has good facilities for discharge control and measurement, good physical conditions of the Branch Canal, and established and functioning Associations and Federation. The Cukas Branch Canal has a well motivated Federation and reasonably well organized Associations, but prior to the 2002 irrigation season was constrained by the lack of adequate control and measurement structures. Due to these difficulties irrigation water could only reach down to 12 km of the 28 km long primary canal. The rehabilitation of the control structures on the Branch (primary) Canal in early 2002, coupled with the capacity building and training programme provided the opportunity for improved water management.

Improving water management capabilities: A fundamental part of the improved water management for both Federations was the introducing of the weekly agreement between Federation and Association in relation to the discharge required at the head of the Branch Canal and the discharge to be allocated to each secondary canal. In order to facilitate this weekly activity a standard of tabulation of the irrigation system was produced. The form requires for each secondary canal the planned crop area to be irrigated for the coming week, the requested discharge for

the coming week, the actual area irrigated in the previous week, and the actual discharge in the previous week. This was to plan in advance the water delivery to each secondary and ensure that adequate water was available to reach the tail end of the system. These data are collected and then the irrigation demand at the Branch Canal intake calculated, after making due allowance for losses. Compared to the periods before 2002, this weekly activity has improved the level of service which the WUA offers to their members, and has created the possibility for better water management.

In previous years the releases from the Thane reservoir to the Krutje and Cukas branch canals has not been related to the area requiring irrigation and consequently excessive releases were made early on in the season and the reservoir ran dry in late July. As the two Federations are fed from Thane reservoir it is essential to have an estimate of the area to be irrigated each week in order to control the releases to be made to supply that area.

The procedures adopted over the last two years for monitoring the irrigated area have produced good results. The crop-monitoring programme organized at the start of the season, focusing attention on the need to be correct with the issuing of invoices and forcing Water Masters to follow the correct procedures. The procedures have helped the WUA chairmen by providing them with a mechanism to control and manage any Water Master who might like to abuse the system. Another element which was introduced during this period was the Irrigation Register which has been of great assistance in providing a transparent and accountable record, field-by-field, of areas irrigated.

Fee collection and expenditure: Linked to the issues of low reported area irrigated and lack of accountability for water is that of low levels of fee collection. The training programme in water management issues introduced since the 2002 irrigation season set out to increase the level of fee collection by improving the level of water service provision. This aspect has been successful in both Federations where the tail end Water Users Associations have received more water in the last two years and, in the case of Krutjes Branch Canal, tail-end WUAs have recorded higher percentages of irrigation areas and fees collected than WUAs in the upper reaches (Table 2).

An improvement in the 2005 season was the recovery of irrigation fees from farmers irrigating from the drains. In the previous year no money was recovered from those irrigating with drainage water. In 2005 in Cukas Federation receipts were issued for 166 ha irrigated from drains. Though the rate charged to farmers for irrigating from drains is only half that of water supplied from the canal system, it reinforces the point that water has a value and reduces the likelihood that farmers will deliberately breach canals to force water into the drains where they can pump it and use it for free.

Another important factor which has been very helpful in improving the quality of service provided by the Federation has been the awareness meetings organized at the start of the irrigation season. The staff of the Training Institute have taken part in these meetings and raised different issues in order to create an increased awareness of the WUAs and the rights, roles and responsibilities of the various key actors.

Table 2. The performance of Krutje and Cukas Federations (2005-2006).

Krutje Federation			Cukas Federation		
WUA	Irrigated area (ha)		WUA	Irrigated area (ha)	
	2002	2005		2002	2005
Fier Shegan	200	170	Toshkez	149	227
Allkaj	150	160	Ngurrez	130	160
Fieri i Ri	145	130	Kamcisht	10	110
Krutje e Siperme	120	80	Bubullime	78	143
Krutje e Poshtme	115	130	Kolonje	-	5
Gorre	180	107	Kallm	-	18
Kemishtaj	230	240	Cinar-Cukas	-	20
Gradishte	80	130	Veri-Vajkan	-	7
Remas	-	35			
Kryekuq	-	80			

Transparency and accountability of water use and fee payment:

This issue has been discussed very much and in detail during the training courses organised by the Training Institute. The issue of the accountability for water supply needs to be addressed if the Federations and WUAs are to take water management seriously. In order to move towards this long-term objective during the last two years procedures have been introduced into the Federations for applying a weekly water use accounting system. The Federation President thus has to account for the water abstracted at the main intake against the water delivered to each Association. The Federation will in turn issue each Association with an account of the water used, measured against the area irrigated for the week.

There is greater awareness amongst the WUAs and Federations of the need for transparency and accountability in the performing of their functions. The role of the PMU is central here in forcing the WUA committee members to be more open with their members, and to share more information. When it becomes known and accepted that the WUAs and Federations will be accountable and transparent, three important things happen: (a) people who might have ulterior motives for becoming chairmen or committee members will not bother to apply, (b) ordinary water users will have more confidence that their money is being correctly used and will be more willing to pay and (c) the authority and responsibility of the WUA and Federation will be increased.

During the 2005 irrigation season Irrigation Registers have been introduced to WUAs to record, field-by field, all the area planned to be irrigated during the season, together with the actual irrigation given. The Irrigation Register allows the irrigated area to be audited by taking it to the field to check on individual parcels to see if they have been irrigated and if the fee has been paid. The other strong benefit is that the Irrigation Register has increased the transparency amongst the water users of who is irrigating and who is not, and who is paying and not paying for irrigation water supplied. The introduction of the Irrigation Register has been accompanied by training on how it should be used.

Improvement of procedures for system maintenance: Inadequate maintenance is a classic syndrome of a poorly managed irrigation system. In general, when management is weak or funds inadequate, it is the maintenance of the system that suffers. Many irrigation systems have been found to have poor levels of maintenance. In some cases the maintenance systems are so low that farmers at the tail-end of canals cannot get any water. During the training courses in either class or field, the issue of the maintenance

mechanism procedures was fully discussed. The main approaches have been in relation to find solutions for the reasons why the maintenance is not carried out and what can be done to improve the level of maintenance.

Conclusions

Under the Project training has been given a high priority, and an extensive countrywide training programme has been established for training and capacity building of WUAs, Federations and irrigation communities. The appointment of a local training contractor has built local training capability, providing a resource that will still be available to the irrigation community after the end of the project. The training has been well received by the WUAs and Federations, and requests continue to be made by the WUAs and Federations to the PMU for further training.

The training has developed and consolidated essential skills required by WUA and Federation personnel for the efficient and effective management, operation and maintenance of the irrigation systems. The training has been given to all personnel working in the WUAs and Federations, developing their skills as a management unit capable of addressing general, financial or technical management issues. Further integration was achieved through meetings with water users to create awareness of the roles and responsibilities of the WUAs and Federations, and the rights and responsibilities of the water users. Social responsibility and control over the actions of the WUAs and Federations were found to be developed through this local empowerment.

The training effort has made a significant contribution to the formation and establishment of functioning WUAs and Federations. However, further work is still required in the following issues: building a strong WUA membership, increasing the reported irrigated area, and increasing the fee income of the WUAs (and thus Federations). These factors are dependent on the irrigation water service provision (and associated system maintenance), and on the general and financial management of the WUAs and Federations. It is anticipated that training and capacity building will continue to play a key role in supporting the consolidation of these management activities.

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