

Collective action and learning processes for managing irrigation systems in rural areas under peasant management: a case study from Medium Atlas, Morocco

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Abstract: *In irrigation farmer communities of Medium Atlas in Morocco, new readjustment processes of water management are underway to respond to new requirements and to increasing demand for water. The aim of this paper is to depict institutions' dynamics initiated by irrigation farmer groups who grasp the opportunity of setting up an official water user association to set new irrigation standards. It is a question to come up with the impacts of such dynamism on the Community lifestyle and collective action.*

On the basis of comparative analysis of various case studies, we show the limits of the participatory model as commonly implemented by development projects, and the role of local initiatives to improve management of a common resource such water. Collective actions initiated to set up changes in water management will be also initiated. Thereafter the question is how one takes advantage of collective learning processes which come with these dynamics to stimulate emergence of other collective projects within these communities and others, through sharing experiences among farmer groups.

Keywords: *farmer association, collective action, organizational learning, Medium Atlas*

Introduction

In Morocco, irrigation schemes are very diverse. After the end of the large dam policy period, the State has been trying, since the 1990s, to correct a dual policy through paying greater attention to farmer-managed small-scale irrigation schemes, usually situated in marginal areas. Moreover, various projects have aimed at improving collective management of irrigation in small and medium-scale irrigation schemes. Those projects were meant to be participatory, with a goal of Agricultural Water User Associations (AWUAs) taking up the management of the schemes. Those associations are set up under the initiative of the projects, prior to the initiating the works.

Initial findings and objectives

The research focused on irrigation communities situated in the Medium Atlas Region of Morocco. Processes of reform of management are taking place to cope with new requirements, especially increasing water demands. The objective of this communication is to assess institutional dynamics initiated by irrigation farmer groups, through a certain form of appropriation of the AWUA framework to set up new management principles. Second, we analyze the impact of those dynamics of community life and other AWUAs. The area of studied irrigation schemes vary from 200 to 300 ha, and encompass some dozens of farmers each. Crops are mainly irrigated fruit trees, whose augmentation led to a dramatic increase in water need. Consequently, water has become an even more strategic resource.

Observed dynamics

A comparative analysis of different forms of irrigation allowed typifying various types of dynamics that can be grouped into 3 categories.

- In some systems, farmers judge (traditional) current management as satisfactory and are willing to make only side changes in rules. In that case, created AWUAs coexist with traditional management organizations ;

- In others, groups of farmers are willing to use the AWUA dynamics to improve water management but the process is blocked ;
- In a last group of case, the AWUA model is fully adopted to undertake profound reform of traditional management.

When AWUAs are appropriated by irrigation farmers, they serve above all to undertake new functions, such as farmer representation towards external institutions and defense of farmers' water rights.

AWUA appropriation by irrigation farmers

The institutional dynamics in the Toufesalt Village in Medium Atlas is a process initiated locally to set up new water management. A group of young people took this initiative, which is based on written rules and consist in an important departure from the traditional management form, judged as inefficient. The AWUA offered the opportunity to provide a legitimate framework to implement the reform. The project was based on clear and accepted objectives, i.e., to organize more efficient water turns on a yearly basis, based on water rights of all irrigation farmers. The water rights are now defined on a new basis: they are defined in hours, and the irrigation order is down in a continuous way to prevent water losses in canal. Irrigation farmers can now have specific demands in terms of water turn been taken into account in the design of the water distribution programme. A booklet is provided to all farmers, which contains the water turn tables of the whole year for all irrigation farmers.

Organizational learning to support collective action

Success is complete and the legitimacy is obtained thanks to control over water management. This gives the AWUA a key role in local governance. The organizational learning that took place in this process is used as a basis to create new associations at village level. Other neighboring AWUAs benefit also from the experience, thanks to advising. The Toufesalt AWUA Governing Board organized training sessions for members of other associations.

Conclusion

Despite the set up of AWUAs in development projects, the water management dynamics are fully linked to local initiatives. The participatory approach used in those development projects is not sufficient to accompany irrigation farmers' collective projects.

The learning process that results from local initiatives to improve management of a common resource such as water can provide an example for other forms of collective action. Local revitalization of local associations can be observed, as well as new forms of partnership with other development actors.

It is then of importance to understand how those learning processes can be better used, to support emergence of other collective projects in the same communities, or in others, through exchange of experiences between farmer groups.

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