WATER USER PARTICIPATION IN EGYPT: AN INCREMENTAL PROCESS TOWARDS IRRIGATION MANAGEMENT TRANSFER

Eng. Moamen El-Sharkawy¹ Eng. Amira El-Diasty² Dr. Khaled Wassief³ Eric Viala⁴

ABSTRACT

Experiences establishing Water User Associations (WUAs) in Egypt have been carried out for the past 15 years, with increasingly promising results. Most of these activities have been pilot projects aiming to demonstrate the benefits and sustainability of WUAs. They were consequently implemented through a centralized and resource-intensive process and focused on limited numbers of associations.

Since 2003, the Ministry of Water Resources and Irrigation (MWRI) has adopted as policy the large-scale development of Branch Canal WUAs. With support from USAID, about 600 branch canal WUAs (BCWUAs) have since been established, covering 15% of Egypt's irrigated area and involving half a million farmers and residents.

In order to achieve this impressive outcome, a different approach has been developed and implemented, emphasizing the direct involvement of MWRI field staff and a partnership between water users and MWRI managers. This paper also argues that the conventional approach of forming WUAs by focusing on water users, and empowering them to take over the O&M responsibilities of irrigation systems, is not adapted to the Egyptian context.

INTRODUCTION

Experiences establishing WUAs in Egypt have been carried out for the past 15 years, with increasingly promising results. The first attempts were led by the MWRI in the late 80s early 90s under the USAID funded Egypt Water Use and Management (EWUP) and the Irrigation Management Systems (IMS) projects. The USAID and World Bank-funded Irrigation

¹Senior Assistant Director of Works, Integrated Water Management Unit, Ministry of Water Resources and Irrigation, Cairo, Egypt

²Senior Director of Works, Integrated Water Management Unit, Ministry of Water Resources and Irrigation, Cairo, Egypt

³Director of Water Communication Unit, Ministry of Water Resources and Irrigation, Cairo, Egypt

⁴Senior IWRM Resident Advisor, USAID-funded LIFE-IWRM Project managed by International Resources Group, Cairo, Egypt - eviala@iwrmeg.org - peviala@aol.com

Improvement Projects (IIP) went along by establishing mesqa⁵ WUAs, while the Fayum Water Management Project (FWMP) formed branch canal-level Water Boards. Recently the Water Boards Project has initiated the establishment of District⁶ Water Boards.

Apart from the IIP projects, where WUA establishment mostly supports mesqa structural improvement, the other projects aimed to prove the feasibility and sustainability of WUAs. They consequently focused on limited numbers of associations, and used a resource-intensive formation process, with implementation and monitoring done at central level. They were able to sensitize water users and MWRI staff to the benefits of water user participation.

Starting in 2003, the MWRI has initiated the large-scale formation of BCWUAs, starting first with 94 of them in 4 pilot irrigation districts, and now with several hundreds of them over five entire irrigation directorates. In order to reach this ambitious goal, it has quickly become clear that the former establishment process, however successful, was too time and resource-intensive to allow easy replication. To address this concern, a revised BCWUA formation process has been developed and implemented, as presented hereafter.

KEY PRINCIPLES FOR LARGE-SCALE DEVELOPMENT OF BCWUAS

BCWUA formation pilot approaches implemented in Egypt so far, even if successful, have the following deficiencies when considering large-scale replication:

- They select geographically and socially promising areas to establish BCWUAs; largescale replication implies that entire irrigation districts and directorates are to be covered, without restriction;
- They institutionalize centralized WUA formation teams which end up constituting a third party between water users and MWRI field staff, thus complicating communications and preventing a direct partnership;
- They devote time and resources to the formation process itself, less on the definition of BCWUA functions and the strengthening of BCWUA activities;
- They tend to guide MWRI staff and water users step by step along the process, with extensive technical assistance, training and awareness; this approach, while essential to demonstrate results at a pilot stage, cannot be replicated all over Egypt; and
- Heavy project support makes for unsustainable and non-replicable results, with limited capacity-building of MWRI staff at local level, and limited awareness raising among uninvolved water users about the opportunity that WUAs represent.

These pilot approaches, while essential to demonstrate initial results, cannot thus be applied over large areas of Egypt. Large-scale replication implies rationalizing the BCWUA formation process, achieving concrete results and getting tangible benefits for water users, and also accepting that not all associations will succeed (some may be inactive or inefficient because of

⁵ Mesqas are tertiary level canals, privately owned and serving 50-300 feddans/acres through marwas (plot ditches). They are supplied by state-owned branch canals (secondary canals serving 500-5000+ fedddans/acres).

⁶ The MWRI is organized into regional delegations (general directorates) and local delegations (districts).

pre-existing community conflicts, lack of willingness, focus on other -not water related- issues, etc.).

Over the past two years, the MWRI Integrated Water Management Unit (IWMU) has led large-scale formation of BCWUAs with support from the USAID-funded LIFE-IWRM⁷ Project.

A preliminary step was to simplify the structure of the MWRI by establishing Integrated Water Management Districts⁸ (IWMDs) as sole local delegations (thus merging pre-existing irrigation and drainage districts). The revised approach is then based on the following principles:

- Increasing awareness that BCWUAs are an opportunity with clear benefits for motivated and determined MWRI staff and water users;
- Building the capacity of MWRI staff, chiefly at district level, to support BCWUA development, now and in the future;
- Providing a streamlined clear process for forming BCWUA;
- Empowering IWMDs to directly form BCWUAs, since this:
 - Promotes a <u>direct partnership between BCWUAs and IWMDs</u> (with IWMDs as a "single window" contact for water users to provide and receive information, express needs and priorities);
 - Reinforces the <u>IWMD as sole MWRI agency</u> at district level; IWMDs represent a unique venue to coordinate all water management activities and implement water projects, thus resulting in more appropriate and timely decision-making, more sustainable implementation and significant economies of scale;
 - Ensures <u>sustainability</u> (after project ends) by building the capacity of IWMD staff;
 - <u>Reduces the cost</u> of forming BCWUAs over all of Egypt by using existing local staff instead of using a specific implementing entity.
- Identifying clear benefits for both water users and IWMD staff; and
- Emphasizing the fact that BCWUAs are complementing the role of IWMD staff, not replacing it.

The main strength of the revised approach is to focus on actual activities and outputs to ensure that water issues are tackled and tangible benefits achieved, in terms of improved allocation of water resources and O&M funds, better resolution of water disputes, etc. This is eventually what builds the credibility and sustainability of BCWUAs (as opposed to optimal administrative and organizational procedures, which can be improved over time).

The activities needed to implement this approach and support BCWUA formation by IWMDs include the following:

- Standardization of the formation process (guidelines and training modules);
- Training (formal/classroom and On-The-Job coaching) of IWMD staff;
- Monitoring of IWMD and BCWUA performance; and

⁷ Livelihoods and Incomes From the Environment Program, Integrated Water Resources Management Project.

⁸ See references.

• Awareness raising regarding BCWUA benefits.

PROCESS OVERVIEW

The BCWUA formation process involves five main steps:

- Introduction/Orientation: MWRI officers (especially IWMD managers) get acquainted with the BCWUA formation process, and a Water Advisory (WA) Team is selected and assigned in each IWMD;
- Preparation: geographical and social data is collected to identify where BCWUAs will be formed and to identify key water users; BCWUAs are delineated through canal grouping;
- Establishment: Key water users are informed about BCWUAs, sensitized to the benefits and convened to elect Board members and a chairperson; these representatives are acknowledged through a MWRI decree and invited to sign a Memorandum of Understanding (MOU) with the MWRI;
- Activation: BCWUA Boards prepare their own Internal Regulations, and collaborate with IWMD staff to identify key water issues, assess solutions and define actions and activities to be implemented; and
- Participatory Water Management: BCWUAs get involved in activities under four themes: water distribution, maintenance of waterways and structures, water quality, and communications and administration.

Step	Objective	Support activities	Duration	Output
Introduction	To raise awareness of local MWRI staff regarding water user participation	Introduction /Orientation Training	1 month	Mobilized IWMD staff, formed IWMD- WA Team
Preparation	To gather information on branch canals and water users	Preparation Training, support to data collection	1-2 months	List of BCWUAs to be formed in each IWMD
Establishment	To establish BCWUAs	Establishment Training Support to BCWUA establishment	4-5 months	Elected Board on each BCWUA, MOUs signed with MWRI
Activation	To strengthen BCWUAs and build partnership with IWMD staff	Activation training Support to IWMD- BCWUA communication, regular coordination meetings Support to joint planning (BC priorities, BC Action Plans)	5-7 months	Internal Regulations, BC priorities, and BC action plans developed by BCWUAs
Participatory Water Management (PWM)	To engage BCWUAs in identifying and carrying out PWM activities	PWM training Support to PWM activities	Ongoing	BCWUAs bring tangible benefits to their members

Training	Training modules/topics	
Introduction Workshop for IWMD managers (2 days)	BCWUA benefits, formation process, WA staff selection and	
Preparation Workshop for IWMD-WA staff (2 days)	BCWUA benefits, formation process, field data collection, canal grouping	
Establishment Workshop for IWMD-WA staff (2 days)	WU communication and awareness, identification of representatives, Board elections	
Activation Workshop for IWMD-WA staff (3 days)	Internal Regulations, Principles and practice of Participatory Needs Assessments and Participatory Planning	
PWM Workshop for IWMD staff (3 days)	Principles of PWM, PWM applied to water distribution, network maintenance, water quality; organization and administration	

Five formal training activities support this process:

These training courses target mostly IWMD staff and provide them with the background, procedures, and tools to establish, activate and empower BCWUAs. Trainers are staff from the MWRI (mostly from the MWRI-IWMU) who are in turn trained and supported by the LIFE-IWRM Project.

An indicative workplan next page details how BCWUAs have been formed within a given IWMD.

		Type of activity Workshop/	Activity description Introduction Workshop: Awareness and formal tra MWRI managers on process overview and IWML	aining of -WA staff	aining of -WA staff	aining of Aware IWMD managing
-	_	training	recruitment (WA: Water Advisory)		2 days	2 days staff
	7	Field work	Assignment of IWMD-WA staff		1-2 weeks	1-2 weeks IWMD-WA staff assigned
	e	Workshop/ training	Preparation Workshop: Awareness and formal training of IWMD staff on data collection and canal grouping		2 days	2 days Trained IWMD-WA staff
	4	Field work	Data collection		8-12 weeks	8-12 weeks Data on all BCs
	Ś	Desk work	Data review, canal grouping		1-2 weeks	1-2 weeks BCWUAs to be formed
	9	Admin work	Ministerial decree (one per IWMD) approving list of BCWUAs to be formed			Official Recognition of the BCWUAs to be formed
		Workshop/	Establishment Workshop: Formal training of IWMD-WA staff on WU awareness, identification of WU representatives and			
	7	training	Board elections	C I	2 days	2 days Trained IWMD-WA staff
	×	Field work	WU awareness, identification of WU representatives and Board elections on all other BCs	4	-5 months	-5 months Elected Boards on all BCs
		Admin	UnderSecretary decree (one per BCWUA) providing names of BCWI1A Roard members – MOII hetwoon MWB1 and			Official MWRI Recommition of the
	6	work	BCWUA			BCWUA
1		Workshop/	Activation Workshop: Formal training of IWMD staff on		-	. E
	10	training	participatory needs assessment, action plans and MUUS	7	cays	days I rained I w MID- w A start
	11	Field work	Facilitation of participatory needs assessments and action plans on all BCs	Ś	-7 months	-7 months Approved APs on all BCs
	1		PWM Workshop: Formal training of IWMD staff on	'		
	12	Workshop/ training	participatory water management activities, procedures and outputs	0.	3 davs	3 davs Trained IWMD staff
	"	Field work	Involvement of BCWIIAs in DWM activities		Continuino	Tangible results and Continuing success stories

Indicative Workplan for forming BCWUAs in one IWMD

PORTRAIT OF A BCWUA

Each BCWUA involves all water users on the area served by a branch canal, a sub-branch canal or a reach of a (large) branch canal. Besides commonality (same water source), and consideration for the social context (existence of long-term conflicts between neighboring communities), the key criterion in delineating BCWUAs was to ensure some size homogeneity. Achieving the right size is a balancing act as bigger associations:

- Are difficult to manage as democratic transparent organizations, with direct communications between water users and their representatives;
- Risk breaking up into sub-groups, based on communities, villages, canal reaches or subbranches;

while small associations:

- Have less leverage and credibility; and
- Get less attention from MWRI staff.

Consequently each BCWUA covers from 700 to 4000 feddans (1 feddan = 1 acre), and engages a few hundreds up to two thousands or so water users. Organically, each BCWUA involves:

- 15-50 Water User Representatives (one or two per mesqa or turnout, i.e. per 50-300 feddans); each represents about 10-50 farmers, and selected through a cooptation process (in the future formal elections would be recommended); some representatives are also selected among residents to represent non-farming water users, these usually being women to promote gender equity; collectively these WURs form a type of representative assembly which:
 - Elect and dismiss Board members;
 - Assist the Board in data collection, communications with BCWUA members, and for specific activities (through committees when needed);
 - Collect needs, concerns and priorities from water users and integrate these in the decision-making regarding BCWUA activities;
 - Approve annual reports, action plans (and possibly budgets); and
 - Check and audit Board activities.
- Five to nine Board members: these are elected by the WURs, led by a chairperson, and represent the executive head of the BCWUA; the Board is mandated to:
 - Mediate and resolve irrigation, drainage and water conflicts between BCWUA members;
 - Collect and integrate BCWUA members' needs, complaints, requests and priorities;
 - Lead the preparation of BCWUA documents such as needs assessments and action plans, lead and monitor their implementation;
 - Regularly meet with IWMD staff to discuss water management issues, evaluate solutions, decide and plan activities;
 - Negotiate and conclude agreements with MWRI for the supply of irrigation, drainage and water services and the implementation of related activities;

- Formally or informally report to WURs and BCWUA members at large on Board activities;
- Hold regular (preferably monthly) Board meetings;
- Hold at least one annual meeting with all WURs; and
- Manage external relations, notably with MWRI, other ministries, and local government entities.

Each BCWUA is internally regulated through their own set of Internal Regulations which includes the following topics:

- General provisions (name of BCWUA, legal references, communication rules, membership);
- Structure, procedures for establishment and operating rules (identification and roles of base units and WURs, constitution and responsibilities of the Board); and
- Administration, record-keeping, etc.

WHY BRANCH CANAL WUAS?

Experience shows that the branch canal is the most suitable entry level for establishing sustainable water user associations in Egypt. Branch canals are where MWRI managers and farmers interact: while mesqas are private property and managed by farmers, branch canals are the responsibility of the MWRI. MWRI engineers' chief responsibility is to ensure that branch canals get properly supplied, with water levels high enough for all mesqa intakes to be in turn supplied.

A BCWUA engages several hundred water users over a few thousand feddans and is thus the right compromise size-wise to ensure good communications with water users on one hand, and credibility with the MWRI and other stakeholders on the other.

Forming mesqa-level WUAs is not economically justified since only a few dozens farmers would be involved in each association. Such associations have limited resources and thus impacts, and their small size does not allow them to achieve credibility and partner with stakeholders even at local level. It is interesting to note that while BCWUAs can solve mesqa-level issues, the mechanisms of conflict resolution and participatory water management developed at branch canal level can easily be transposed at mesqa-level and applied even on an informal basis. The MWRI has only been facilitating the formation of mesqa WUAs in the areas of implementation of the Irrigation Improvement Projects (IIP), in order to allow mesqa structural improvement.

Likewise forming mega-associations at district level might be premature in a country where local leaders have limited experience of accountability and transparency. A district-level WUA would have serious difficulties communicating with the thousands of farmers in the district. It may also raise high expectations that may not get fulfilled.

RESULTS AND SUCCESS STORIES

The initial step was the establishment of 27 IWMDs over 5 entire Directorates (covering 1.2 M feddans or 15% of Egypt's irrigated area). Within less than two years, 20 to 35 BCWUAs were then formed in each IWMD, for a total of about 600 BCWUAs involving over half a million water users (mostly farmers).

All these BCWUAs have signed MOUs with the MWRI, and have approved Internal Regulations. Most of them have prepared annual priorities and started collaborating with IWMD staff to address these priorities (through water monitoring or maintenance activities, awareness raising, mobilization of water users, etc.).

About two hundred BCWUAs have also developed annual action plans, focusing on one or two activities to be implemented directly by water users with or without support from MWRI staff.

Regular meetings are held by IWMD staff:

- Individual meetings once every three months or so for one or several neighboring BCWUA Boards to discuss branch canal issues, water user complaints, violations of water structures and waterways, water quality concerns, etc.
- Seasonal meetings twice a year with all chairpersons within the IWMD to discuss district-level (or main canal/drain) issues; this is also an opportunity for:
 - The IWMD manager to reflect on the past season issues and achievements, introduce distribution and maintenance schedules for the oncoming season, discuss these with chairpersons, and pro-actively address potential issues and conflicts; and
 - BCWUA chairpersons to present general water users concerns and priorities, and share achievements/success stories and challenges from their BCWUA.

Among the significant outputs from the involvement of BCWUAs, is a marked decrease of recorded complaints from water users, as well as an improved handling of violations (tampering with water structures or canal banks, illegal constructions, illegal releases or withdrawals, etc.). Violations used to be recorded by MWRI staff and after a couple of warnings, referred to the police for follow-up (follow-up being rare but potentially violent). Nowadays, violations are discussed with Board members, solutions facilitated to the satisfaction of all parties involved. Increased awareness also prevents the occurrence of such violations.

Among other successful outputs, dozens of BCWUA success stories have been collected by the MWRI IWMU and Water Communication Unit (WCU). Some of these refer to the collection of money among water users to handle small-scale repairs or maintenance works to complement or supplement MWRI activities. Voluntary labor also occurred in some branch canals, mostly for de-weeding purposes. Sizeable lengths of branch canals were cleaned from garbage disposal or violations such as tree planting through collaboration between BCWUAs and IWMD staff. Conflicts and disputes among water users have been mediated and solved by BCWUA Boards with limited or no involvement from IWMD staff.

The WCU has been preparing a quarterly newsletter with the most representative success stories. This newsletter is distributed to all IWMDs and BCWUAs supported by the project but also to MWRI staff at large and notably all (200 or so) irrigation districts in Egypt.

Beyond the empowerment of BCWUAs, another significant achievement is the general recognition within the MWRI of the many benefits of WUP. It is also noteworthy that some MWRI engineers (notably from the IWMU) have built a tremendous expertise in how to mobilize and involve water users. These engineers have become in fact the champions of WUP.

PENDING ISSUES

Even if the formation of BCWUAs has achieved impressive results, some issues remain. The most significant one is that BCWUAs lack strong legal recognition. They cannot for example open bank accounts or collect fees from their members, as do officially registered NGOs. They are acknowledged by the MWRI with decrees instructing all MWRI staff to collaborate with Board members and defining respective roles and responsibilities. Similarly BCWUA Internal Regulations are more guidelines than legally binding by-laws, even if approved by the MWRI.

As often the development of the proper regulatory framework (hopefully) follows real activities and achievements. The lack of strong legal backing has not hindered the establishment and involvement of BCWUAs:

- Board members are able to take decisions and enforce them within BCWUAs (they are usually local elders whose new "position" strengthens as mediators, and leaders);
- Peer pressure is an efficient tool to compel violators to change their behavior;
- Most water users know about the existence of the BCWUA and now refer issues, questions and concerns to Board members and not IWMD staff; and
- BCWUAs are considered serious partners by other stakeholders such as the Ministry of Agriculture and Local Councils.

At this point, the process is still fragile and sustainability rests on the implementation of more participatory water management activities to establish the credibility of BCWUAs through tangible results and concrete benefits for water users.

Another issue is the effective involvement of all water users:

- Not all farmers are engaged in BCWUAs (usually 80 to 90% per IWMD); not involved are farmers who directly irrigate from main canals (through pumps or illegal diversions), and farmers farming unofficial lands (desert fringes, non-agricultural lands, etc.);
- To a large extent, BCWUA representatives are almost exclusively farmers; while irrigation is by far the largest use of water in Egypt (about 85%), major impacts on water quality are caused by urban and industrial activities; relevant types of water users will have to be involved; and
- Women are not much involved as they tend to be remotely involved in farming activities (only destitute families allow women to farm).

As mentioned earlier, gender equity is promoted through the selection of women as representing non-farming (resident) water users. There is growing awareness among farmer representatives of the need to involve women: as an example, garbage dumping in canals is a general concern. Awareness activities to prevent dumping have to proceed from household to household and target women. Only women WURs and Board members can carry out such activities and visit other women.

NEXT STEPS

Established BCWUAs are still fragile. The most essential challenge for sustainability is to build credibility. This can only be achieved if they are able to produce concrete results and provide tangible benefits to their members. In order to enhance the self-confidence of BCWUAs, the IWMU has started promoting a set of participatory water management (PWM) activities.

These PWM activities are grouped under four themes and cover most of the basic water management activities at district-level. Each activity should produce a specific output:

Торіс		Activities	Outputs	
	A1	Needs assessment, BC priorities and action planning	Action Plan	
A-Maintenance	A2	Direct work activities (weed removal, manual bank repair, etc.)	BC improvements	
	A3	Monitoring of contractor's activities	Field visit reports, tripartite meetings (contractor, WUs, IWMD)	
	B1	Monitoring of water levels/gate operations on branch canal	Records	
B-Operations	B2	Water allocation among mesqas	Operational Plan - Schedule/calendar	
	В3	Data collection/verification re cropping patterns and water needs (MISD)	Crop data	
C-Organization/	C1	Internal communications/ conflict resolution	Internal Regulations (internal meetings)	
Communications/	C2	Formal BC dialogue with IWMD	Formal BCWUA meetings	
Awareness	C3	Formal dialogue at district-level	Formal seasonal meetings	
	C4	Administrative/Organizational	Records	
	D1	Activities to manage liquid waste disposal	Waste management activities	
D-Water Quality	D2	Activities to manage solid waste disposal	Plan)	
	D3	Awareness activities regarding pollution	Awareness meetings/actions	

These activities will be implemented under the same overall approach that heavily relies on IWMD staff to support and engage BCWUAs. To that end and to nurture the IWMD-BCWUA partnership, benefits for both sides have been identified for each activity:

Topic	Activities	Benefits to IWMD/MWRI	Benefits to WUs		
A-Main	itenance				
	Needs assessment, BC priorities and action planning	Assists identification of water management needs (distribution maintenance, rehab/improvement etc.), improves efficiency of budget allocation	Achieves concrete results, better addresses WU needs, helps establish credibility of BCWUA		
	Direct work activities (weed removal, manual bank maintenance, etc.)	Reduces maintenance costs, improves water delivery	Improves water delivery, complements maintenance by MWRI		
	Monitoring of contractor's activities	Transfers part of burden of ensuring work quality	Improves work quality on branch canal		
B-Oper	3-Operations				
	Monitoring of water levels/gate operations on branch canal	Improves water delivery, provides performance feedback	Provides better information/ understanding of water availability		
	Water allocation among mesqas	Assists with implementation of rotation - Reduces complaints at mesqa level - Increases water use efficiency	Increases equity (increased tail-end availability ?) - Decreases conflicts		
	Data collection/ verification re cropping patterns and water needs (MISD)	Provides critical data to improve water delivery, water use efficiency	Improves water delivery (timing/quantities)		
C-Orga	nization/ Communications/ Awar	eness			
	Internal communications/ conflict resolution	Strengthens BCWUAs, solves water disputes, reduces no of violations/ complaints	Provides framework for functioning of association - solving internal conflicts		
	Formal BC dialogue with IWMD	Streamlines communications with WUs - reduces no of farmers coming to IWMD,	Clear access to MWRI- IWMD		
	Formal dialogue at district- level	integrates requests/complaints - also provides conduit for awareness raising	Opportunity to discuss district-level issues with MWRI-IWMD		
	Administrative/Organizational	Strengthens BCWUAs as sustainable partners	Provides transparency and accountability		
D-Wate	er Quality				
	Activities to manage liquid waste disposal	Complemente MWDL	Improves water quality, environment, health		
	Activities to manage solid waste disposal Awareness activities regarding pollution	activities, improves water quality			

While each BCWUA is encouraged to carry out all the activities, it is up to water users and their representatives to decide which activities are needed, which ones are priorities, and which ones, if any, are not needed (at least for now). On the other hand, other activities not envisioned here can be carried out by BCWUAs as long as these activities are legal and contribute to improving water management.

Beyond building the credibility of the practice of water user participation, the objective is also to encourage a feeling of stewardship among water users. So that they evolve from being passive requesters/beneficiaries to becoming responsible actors. This would be an essential step on the long road towards Irrigation Management Transfer (IMT).

CONCLUSIONS

The conventional approach to form WUAs is to focus on water users. It involves:

- Mobilizing water users (mostly farmers);
- Sensitizing them to the concept and tools of water user participation;
- Leading them through the procedures of establishing and managing their own association (making clear it is non-governmental);
- Building their capacity to operate and manage their system; and
- Actually transferring responsibilities to them (technical, managerial and/or financial).

The main shortcoming of this approach is that governmental water managers are remotely involved and only at central or regional levels. These officials collaborate with the technical specialists or consultants assisting the formation of WUAs, and eventually coordinate with the WUAs for the supply of bulk water resources, the collection of water fees, etc. In the meantime local governmental staff is frequently bypassed and ignored, and quickly perceives the development of WUAs as a way to replace them. The end result is the strong opposition from local staff to water user participation. This is sometimes mitigated by the conversion of local staff into farmers and members of the WUAs (with frequently technical or managerial responsibilities).

The entire process, from awareness raising to actual O&M transfer, can be quite rapid (a few years). Donors tend to push for this approach as it fits within their 4-5 year project cycles. In countries like in Central Asia, the collapse of the Soviet system and the lack of public funds has led governments to adopt this approach (as a way to get rid of costly and derelict assets). But the transition can be quite traumatic for water users (left with significant O&M responsibilities, but limited experience, skills and resources) This approach has sometimes been referred as the "bigbang" approach. It seems to be somewhat successful in India. It has been successful in other countries such as Ecuador where irrigation systems are small and easily managed by water users.

As mentioned before, the initial WUA experiences in Egypt followed the conventional approach, with limited involvement of MWRI local staff, and the assumption that farmers would eventually take over. But Egypt, not unlike Central Asia, is characterized by a:

• Strong and autocratic centralization of decision-making processes;

- Large public sector with plethoric staff notably at field level;
- General lack of initiative-taking from farmers who expect a lot, if not all, from the government (the Nasser period gave Egypt a strong taste of socialism, which the Egyptian bureaucracy has been perpetuating ever since);
- Lack of financial resources (to maintain large water structures) among small-scale farmers; and
- Large irrigation system(s): the Nile Valley (or at least the Delta) is simply one large (and complex) irrigation system; no part can be managed independently.

For these reasons, the conventional "big-bang" approach is unsustainable and may even be counterproductive. Moreover, and unlike Central Asia, water user participation in Egypt also has to operate with an unsupportive regulatory framework: BCWUAs can not yet register as NGOs and are not allowed for example to collect fees.

The approach followed by the MWRI with technical assistance from the LIFE-IWRM Project focuses on empowering water users while building a strong partnership with IWMD staff. It is through that partnership that actual issues are tackled and tangible benefits achieved, in terms of improved allocation of water resources and O&M funds, better resolution of water disputes, etc.

This approach also creates the conditions for a successful dialogue between managers and users, builds the confidence of water users and eventually paves the way for an incremental evolution towards an Egyptian-type of Irrigation Management Transfer. Complementarity is the key for a smooth, gradual transfer of irrigation and drainage O&M responsibilities.

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