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**TRANSFORMATION TOWARDS SUSTAINABLE
AND RESILIENT WASH SERVICES**

**A co-management model for achieving sustainability of
community water supplies: a case of East Darfur**

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PAPER 2950

Many times sustainability of rural water supplies has failed due to system of governance. In East Darfur, the management of water points is purely a responsibility of State Water Cooperation and no attempts had been tested to give the community an opportunity to manage water resources. Piloting co-management in in six villages of East Darfur has shown immediate positive impacts. In Galabi village, besides regular maintenance of water point, the community has constructed a health centre with the 60% water yard revenue allocated to them. Livelihood income has also increased as vegetables planted around water yards has attracted sales which help women to meet their daily needs including paying school fees for their children. The co-management success has been seen in five villages and it is hoped that through these successes, the state legislative assembly will endorse the model to govern the management of rural water supplies in East Darfur.

Introduction

Sustainability is a central aspiration of development. Intervention alone are not sustainable because they are time bound thus services put in place to maintain, replace and upgrade such interventions over time should be sustainable. The Mer del Plata water conference of 1977 addressed growing international concerns about water resources and environment and stressed the need for sectorial development, establishment of national institutions and for greater spending in water and sanitation sector (Nicol,1999). The conference and its action plan led to organisation of International drinking water supply and sanitation (IDWSS) also known as water decade 1981-1990 which emphasised on the need to include water and sanitation activities integrated in rural development projects. The government remained the primary focus of development efforts although the participation of communities in decision making was also emphasised, it was Top-down and supply driven approach. The new Delhi statement (UN,1990) of Global consultation on safe water and sanitation emphasised that access to water and sanitation is not simply a technical issue; it's a crucial component of social and economic development and that sustainable and socially acceptable service can be extended by using appropriate technologies, adapting community management and enhancing human service. Community management was identified as key to sustaining services for rural poor and is a viable option to urban poor settlement. The Rio conference (UN,1992) further strengthened the need for participatory governance and highlighted the need to take all stakeholders into account in managing natural resources. In both new Delhi and the Rio conference resolutions, Community Based management became central part of major policy and practitioner discourse on rural water supply (Nicol, et al 2012). Havey and Reed (2004) observes however, that community management model remains by far the most widespread for rural water supply in Sub-Saharan Africa yet it has failed to deliver the levels of sustainability that was initially anticipated; perhaps this calls for trial of Co-management approach if this can deliver anticipated levels of sustainability.

Co-management as a participatory methodology implies that the management of resource involves several players (central government, local authority, local communities etc.). Community management on the other hand implies that the resource is managed solely by the local community. When resources are co-managed, the communities stand to benefit from government support on land rights to reduce pressure on resources

especially when a community is confronted by migrant communities from outside who are looking for fresh opportunities. Such pressure is a major failure of resource management by local communities (Baland and Plateau, 1996). However, as a collective management approach, communities are able to design rules, monitor individual actions and impose sanctions to members who deviate from a given behaviour (Ibid)

As noted by Jerome et al 2009, one major advantage that local communities have over central government in managing resources arises from their ability to access detailed information rapidly about state of resource which allows them to respond and therefore adjust more quickly. Central government on the other hand has access to ecological information at a wider scale, and to more sophisticated tools than local communities. Co-management as a model attempts to combine the advantages of local communities with those of central government and its various department. The ability to manage natural resources will thus depend on the model of interaction between the central government and the local community (Ibid).

The East Darfur context

East Darfur is one of five Darfur states created in 2011 following the signing in May 2011 of the Doha Document for Peace in Darfur (DDPD). The state covers an area of 52,867 sq.km., extending roughly 350 km north-south from North Darfur to its border with the Republic of South Sudan, and up to 200 km east-west between West Kordofan and South Darfur States. East Darfur's 1.5 million population is predominantly rural and follow a mix of farming and pastoralist livelihoods. In the past the people in East Darfur lived in dynamic equilibrium with a fragile environment characterised by climatic variability, and periods of shortage and relative plenty. Livelihoods, population levels and social structures were adapted to this fragile context, and, while conflict and acute shortage (e.g. famine) did occur, in general traditional coping strategies and forms of conflict resolution allowed the equilibrium to be maintained (National Action Plan Report, 2013).

In more recent times, however, a combination of underlying factors has disturbed this historical balance to produce disequilibrium between the environment and human livelihood systems. The result is a negatively reinforcing relationship between competition for and the unsustainable use of available natural resources (water, forests, land), environmental degradation, and reduced livelihood options. A well-documented outcome of this relationship is local conflict over natural resources (UNEP,2014)

Water resources in East Darfur are mainly seasonal ponds (*rehab*), man-made reservoirs (*Haffir*) and Water yards(*boreholes*). These important pieces of water resource infrastructure, where they do exist, are often run-down or not functioning at all, either as a result of the conflict and/or poor management. Poor management especially of water yards results from a system of water governance that centralizes decision making in the state level authority (State Water Cooperation) and removes from water users the means to manage their resources at local level thereby affecting men and women roles and responsibilities in social and economic life. It is this problem of natural resource governance, combined with the region's on-going political conflict, which most forcefully drive the environment-livelihoods disequilibrium in East Darfur. Problems of governance are manifest in the weakened system of customary (or "native") administration (UNEP,2013). Population growth and climatic factors are also known in Darfur to drive competition for – and conflict over – land and water between different livelihoods groups (Ibid).

In East Darfur, the causes of livelihoods disequilibrium are numerous: political conflict, poor governance, high population growth, and climate variability are probably the most significant. Of these, poor governance, and its intermediate consequences, is the most accessible. The co-management aspires to entrench good governance of natural resources to promote sustainable livelihood. Governance has been defined as: "... the system of values, policies and institutions by which a society manages its economic, political and social affairs within and among the state, civil society and private sector (UNDP Strategy note on governance, 2004).

Piloting co-management in East Darfur

Water is as one of the principal limiting factors bearing on livelihoods in East Darfur and is key to ensuring government buy-in to the project and improved relationships between the government institutions and the communities. The water supply infrastructure (water yards, seasonal ponds-*rahads*, Man-made reservoirs-*hafirs*) is degraded and insufficient for water user needs, and under current management approaches is financially unsustainable. This is because the current approach to the management of water yards and other water supply infrastructure is not working properly. Co-Management approach is drawing experience of UNOPs and UNEP in Sudan and applies integrated water resource management (IWRM) to water sector to

develop solutions to set of problems regarding the existing statutory requirements giving all the authority to State Water Cooperation as centralized decision maker.

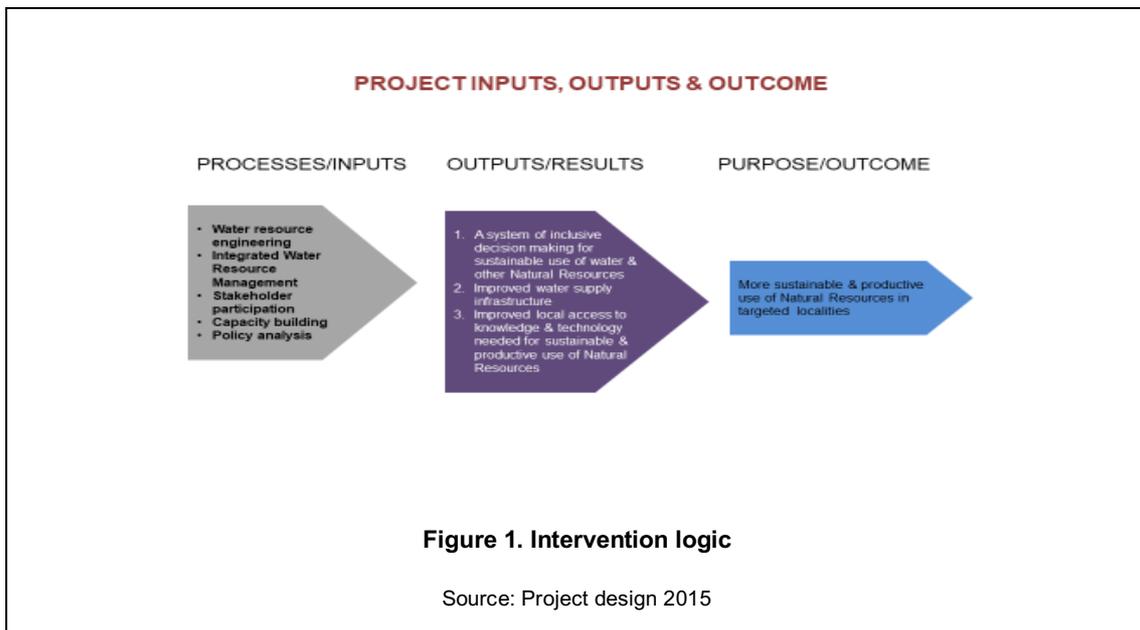
Co-Management as a model was piloted in East Darfur through EU funded project to develop and manage rural water facilities having been pioneered with some success by UNEP in North Darfur. Piloting the model was managed jointly by UNOPS, UNEP, three selected NGO and the local community representatives. UNEP dealt with the policies in addition to cross-cutting quality assurance, UNOPS with the water program design in addition to project management and INGO/NNGO was responsible for dealing directly with the communities to ensure productive techniques on the use of natural resources. Within the management set-up there is a task force committee at state level comprising of senior representatives from state government line ministries and natural resource management at the locality level where there are natural resource committees comprising of local community’s residents and the representatives of locality administration. The program implementation has been overseen by the Wali (State governor) through State Minter of Agriculture whereas the concerned state departments such as State Water Corporation (SWC) and Water and Environmental Sanitation (WES) play active role in facilitating the implementation of the initiative.

Underlying factors for success

The underlying factors for success of co-management of water resources was based on the following key results:

1. Policies guiding the use of natural resources are formulated, adapted to local requirements and implemented at local level
2. Rehabilitated and newly constructed water points are ensuring sustainable and conflict free supply
3. Local beneficiaries are applying techniques contributing to more sustainable and productive use of natural resource

The achievement of the above underlying factor is in the intervention logic illustrated in figure 1 below.



Strong policy is a corner-stone of good environmental governance, if the policy is not driven by the needs of users, as well as a consideration of bureaucratic and technical aspects, sustainable management of natural resources is likely to fail. For example, current water supply management policy and practice places the federal-level Drinking Water and Sanitation Unit, and its constituent State Water Corporations, as sole decision-makers in respect of water resource development for public consumption. Water users have an obligation to pay pre-determined fees for services provided, but have no say in the way that the service is run. The SWC task force was convened to come up with recommendations on effective operation and management water supply infrastructure in the state. Negotiations and consultations was done between the technical committees, natural resource committees and the government line ministry departments for Water i.e. State Water Cooperation and though there was more resistance from SWC to maintain the status quo, The

co-management system with the participating community was built on existing cost recovery practice and introduced a clear division of responsibilities for operations and maintenance between community and SWC, and corresponding revenue sharing; a consensus was reached that the water resources revenues generated are co-managed on 40% government and 60% for community which is due for approval at the legislative council to become a law.

Milestone achievements

In the third year of project implementation, the application of co-management approach has yielded positive result on the five water yards that were constructed as a pilot intervention to test this model. Key milestones include:

- Establishment of Natural resource management policy setting stage co-management as a model for managing community water supplies; the policy is due for approval by the state legislative council to become a law which will govern management of community rural water supplies in East Darfur
- Through co-management, revenues collected from water points of the water yards rehabilitated in the piloting phase is already being shared on 60% for community and 40% to state water cooperation; the state water cooperation to use 20% on repairs and maintenance and the other 20% for operation costs i.e. fuel and salaries for staffs .For the 60% revenue allocated to the communities ,the money can be used to construct social amenities to benefit the communities i.e. school, health centres and other small scale community projects. To date Gelabi village one of the targeted village is benefiting from a health clinic room constructed from such funds
- Bank accounts are opened in each village where the fee collected by SWC from the water points is being deposited. Signatories to these accounts are Natural resource management committee representatives at village level, head of finance at relevant line ministries for the natural resources i.e. State water cooperation, Ministry of Agriculture and Ministry of animal resources.



Photograph 1. Community members in Gelabi Village preparing vegetable garden around water yard

Source: ZOA

Summaries of lessons learned for scale up of Co-Management

- **Advocacy-Co-Management** is a new approach in East Darfur, its success requires political back up for the act to be passed into a law by legislative assembly. The humanitarian actors should also advocate for its enactment as this would lead to sustainability and a resilient community
- **Exchange visits** - Gelabi community representative visit to West Kordofan state has made them to take active role in advocating for solutions to community problems for example after building clinic arising

from water yard revenue, they sought for support from ministry of health to provide them with medical personnel

- **Building institutional Capacity**-Upscaling co-management requires capacity building process whereby community level institutions should be able to equip itself necessary functions of governance and service provision in a sustainable way. The capacity building should aim both at increasing access to resource and changing the powers relationship of parties involved
- **Stakeholder analysis**- it is necessary to assess the stakeholders importance and influence, Success of co-management in west Kordofan was boosted by key stakeholders that originated from areas where co-management was being piloted. Through their influence they were able to coerce others into making decision and endorsing the act into law; Stakeholders with high influence and importance must have good relations with the project if it is to be a success.

A story from Natural Resource Management committee leader

Natural Resource Management project introduced the idea of co-management for water yards which is already having positive impacts on the targeted communities' life. One of these communities is Galabi Village. Mohamed Adam, who is a natural resource management committee member in Galabi who also doubles up as signatory community bank says, " We have been trained by ZOA on all aspects of water yard management and money control. Two of our community members from NRM committees have been on a one year on job training with State Water Cooperation on technical repairs. Many at times we asked ZOA to provide us with services that are not included in NRM project and they reminded us that we have 60% of water yard income. This motivated us to work hard to ensure our water yard is operating without disruption to enable us have good revenue. Our revenue in the bank has increased much more and as an NRM committee, we have conducted a meeting with the community and discussed the most important needed services in Galabi. A health centre was lacking in our community to meet the urgent medical care for the pregnant women and other critical cases so we agreed to construct a clinic room since transport to Eddaain is not available at all times. The construction is finishing in a months' time and the ministry of health has agreed to support us with a medical staff. This health centre will reduce health problems in Galabi and surrounding areas". He concludes that the revenue of 60% allocated to the community from water yards will help them build more small scale projects including schools and other social amenities. Thanks to ZOA.

Conclusion

The co-management of the water infrastructure has resulted to a positive change in the attitudes of the community regarding the management of rural water points, before the final endorsement of the Act the implementation is ongoing. The model when adapted in the state will make WASH Committees normally trained by humanitarian actors have a say on the management of revenues generated from water points as the current water governance system explicitly mandates the state water cooperation to be in charge of the revenue management from the water yards which has often led to run down or limited functionality of the water points until humanitarian actors comes in to rehabilitate the systems back to their functionality status, The practice of Co-management is already showing long term benefits beyond sustainability as the financial resources generated from water tariffs has been used to address health care needs through construction of clinic. This approach will develop resilient communities of East Darfur.

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