


# Participation in Integrated Natural Resource Management Projects: Reflections from North Darfur

A FEINSTEIN INTERNATIONAL CENTER BRIEF 

*Hassan Alattar Satti, Helen Young, and Aziza Mohammed Adam*

This brief is the third in a series of learning briefs under the Taadoud II: Transition to Development project, a collaboration led by Catholic Relief Services and funded by UK Aid. The project includes Catholic Agency for Overseas Development (CAFOD), Norwegian Church Aid (NCA), Oxfam America, World Vision, and Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University. The learning brief series aims to promote awareness and understanding of natural resource use and management in Darfur to support the Taadoud II program and wider programs and policies to effectively build resilient livelihoods.

The first brief reviews farming and pastoralist livelihood systems, highlighting their evolving and overlapping tenure regimes. The increasing pressure on natural resources has contributed to strained relationships and in some cases polarization and conflict. The second brief continues this theme and reviews how farming and pastoralist specialist strategies are evolving while new strategies are emerging. Programs and policies need to reflect and support this new reality.

This third brief addresses the issue of community participation in integrated natural resource management (INRM) and the social and economic incentives that support this participation. The brief investigates the contextual and institutional opportunities and challenges facing INRM and shows how communities envisage effective INRM programming. All three briefs emphasize that problems and challenges are most effectively addressed when the complex and dynamic local context is well understood by all.

## Introduction

The natural environment is an integral part of people's lives and livelihoods in the Darfur region. Whether it's materials for housing, fuel for cooking, water for domestic use, or the natural resources that are essential for farming and pastoralism, natural resources play a fundamental and universal role as part of people's lives and livelihoods. The livelihoods that are dependent on natural resources are predominantly farming and pastoralist production, and the wide range of occupations linked to these

livelihoods, such as service provision or markets and trade. Integrated natural resource management (INRM) mediates the rights of different users, their inter-relationships, and their diverse and often complementary uses of natural resources. INRM affects the wider socio-ecological system—the sustainability of natural resources, the resilience of livelihood systems, the peaceful co-management of natural resources, and the mitigation of competition and conflict over natural resources.

This brief explores community perspectives on INRM and aims to understand the incentives of natural resource users within Taadoud II areas to participate in INRM interventions. The goal was to understand what shapes those incentives and how communities perceive the way forward for realizing INRM objectives. In addition, it highlights the link between changing livelihoods and INRM interventions.

Summary of the study methods: The methodology included fieldwork in two catchment areas of North Darfur State in February 2021 by a team of two field researchers supported by an international consultant. The catchments were the Wadi Jaldama and Wadi Abuhamra catchment areas. Four days were spent by the Taadoud Feinstein team in each catchment.

Limitations of the study: Fieldwork was limited to one state (North Darfur) as security incidents led to the cancellation of fieldwork in a second state. COVID-19 regulations meant the international consultant could not travel to the field and restricted fieldwork (e.g., no focus group (FG) discussions and only one-to-one distanced interviews were conducted).

In summary, the brief starts by reviewing important lessons from past policies and interventions

related to local governance and natural resource management. Based on this learning, Taadoud II has developed a more holistic approach to supporting both livelihoods and INRM, based on catchment area targeting combined with operational research. The brief then describes community perspectives on the economic and peacebuilding incentives to participate in INRM. The findings also cover community perspectives on how to realize effective INRM approaches and who should be involved to achieve the objectives of “integrated” NRM. The discussion reviews three main points:

- The primary importance of both economic livelihood gains and restoring relationships between natural resource users as incentives to participate in INRM interventions;
- The importance of inclusivity and integration in relation to restoring relationships between users and communities in the catchment areas, how that can be further strengthened, and who should be involved in INRM to realize the objectives of integrated NRM;
- Key governance issues that continue to undermine equitable access to natural resources and local producers’ (users of natural resources) perspectives on strengthening the Taadoud II NRM approach.

## History matters: Paradigm shifts and the legacy of external intervention

The Taadoud II project builds on a body of learning on governance of natural resources and its links to livelihoods and conflict from Taadoud I and earlier experience in Darfur. Understanding this history is vital for understanding local governance and rights of access to natural resources, which underpin the livelihoods and local natural resource conflict resolution mechanisms. Taadoud communities still remember to this day positive experiences of community development and participatory approaches from the 80s, which Taadoud has built on. As the situation in Darfur has changed, so has the international modality and scale of response, from humanitarian assistance and protection to

reconstruction and early recovery, with an increasing focus on building resilience and promoting the peaceful management of natural resources.

Institutional change in Darfur has come about as a result of the influence of foreigners as well as national policy makers. In colonial times, the Anglo-Egyptian government adapted many of the institutions that were part of the administrative system under the Fur Sultanate, which was a system of indirect rule known as the Native Administration. Reorganization of local government after independence (the 1971 Local Government Act) altered administrative boundaries and reduced

the authority of the Native Administration to a more administrative role, both of which were factors in triggering tribal conflicts over borders and rights to land across Darfur (Young, Osman et al. 2005).<sup>1</sup> Locally, the demise of this vital local governance institution created a vacuum whereby arbitrary changes to traditional natural resource management practices antagonized local relations. For example, the practice of spontaneous private range enclosure causes disruption to the wider pastoralist systems, and reduces efficiency, leading to a decline in herd performance and overgrazing (Behnke 1985). The Native Administration remains the backbone of local governance despite its chequered history, with a wide-ranging role in relation to the management of natural resources. However, two decades of protracted conflict have further challenged its institutions and somewhat eroded its authority and capacity. Despite this apparent weakness, there remains a strong base of community-level support for the local administration. This support, when mobilized in an inclusive manner, has the capacity to resolve resource competition and conflict.

Development deficits, misconceptions, and prejudices have exacerbated the livelihood crisis facing farmers and pastoralists in Darfur. For a long time, government policy ignored and marginalized Darfuri producers, including rainfed farmers, focusing instead on the mechanization of farming. The resettlement of pastoralists was also widely advocated, wrongly assuming that pastoralism was incompatible with modern life, and that basic services were difficult to adapt for nomads.

A continued policy focus on farming fueled inequalities and rivalries between communities associated with different livelihood specializations (farming or pastoralism). Echoes of this exclusionary narrative are still heard today, and the participation of pastoralists in development initiatives continues to be lower than that of their farming compatriots. However, both producer groups have suffered from policy neglect and marginalization.

Early international development efforts<sup>2</sup> fared little better, with a focus on technology transfer for increasing productivity and stopping desert encroachment. Emergency relief, especially international food assistance, prevailed in the 70s and 80s. A few international non-governmental organizations (NGOs) stayed on after the 80s famine, focusing on famine mitigation and preparedness. Oxfam GB pioneered community development approaches combining technical interventions with community participation (Strachan and Peters 1997). "In the past, few people practiced wadi cultivation in Sanabel. However, Oxfam GB supported wadi cultivation to the area through introducing vegetable gardening to farmers," one community member from Sanabeel of Wadi Jaldama said. The organization emphasized community empowerment, gender, and the participation of women, and recognized the reciprocal relations between nomads and settled farmers. Evident during the fieldwork for this brief in North Darfur is the legacy of Oxfam's work, in the capacities and narratives of communities and local institutions.

The Darfur conflict and humanitarian crisis changed the course of international action as the focus switched to delivering life-saving interventions and protection. Some commentators argue that competition over natural resources is a precursor to communal conflicts, and a driver of farmer-herder competition and conflict (Assal 2006, UNEP 2007). However, conflict in the Darfur context is complex, with a confusing array of actors and what appears to be multiple levels and drivers of conflict that in fact are interconnected and merge into one another. While community-level interventions can help to address the livelihood challenges and local-level, conflict-related processes, they cannot be expected to solve deeper issues linked to wider structural or policy issues associated with natural resource management failures or national and international peacebuilding.

<sup>1</sup> Up to 16 different rural council border disputes and conflicts occurred in southern Darfur alone soon after this Act was implemented (Young, Osman et al. 2005).

<sup>2</sup> Two major programs were the Western Savannah Development Scheme in South Darfur and the Jebel Marra Rural Development Program (JMRDP) in West Darfur.

There have been periods when it was widely believed that conflict is over and recovery can start in earnest, especially after the signing of a peace agreement or when the rains are excellent for more than one year at a time and many producers benefit. However, at no time since the start of the wider conflict in 2003 has conflict resolved completely, and always there remain outstanding grievances, competition, and tensions on all sides over lost, reducing, or blocked access to natural resources that at times led to conflict and violence. It is increasingly recognized that the process of restoring peace to Darfur “will include a resolution of the means by which natural resources are governed and managed in the wider region” (Bromwich 2015). However, the paradigm shift switching from urgent humanitarian action based on aid or service delivery to supporting the peaceful governance of natural resources in the long term represents a huge challenge (Bromwich 2015).

Despite the systemic failures of development, important lessons must be drawn from this history. For example:

- The longevity, dynamism, and constantly evolving nature of the NRM institutions reflect

their flexibility, experience, and the trust placed in them by communities.

- Community participation approaches in the 80s made a lasting difference in how communities work together, which is still evident today.
- The short-term impacts of technical fixes that, if they are not well supported and maintained, are unsustainable can leave communities worse off in the medium term.
- In order to promote peace, conflict drivers need to be addressed at the level at which they operate through the relevant policies and institutions, recognizing the connections between them.

Box 1 describes the Taadoud II INRM approach. Taadoud II is building on these earlier successful development efforts, learning from past experience and making new strides in promoting integration and peaceful cooperation between producers.

### Box 1. Taadoud II INRM approach

The Taadoud II INRM approach builds on a wider body of learning and experience related to livelihoods, natural resources, and protracted conflict in Darfur. Based on learning from Taadoud I—the first phase of Taadoud—Taadoud II recognizes the complementarity of farming and pastoralist livelihood specializations, and the importance of their co-resilience to their sustainability and peaceful relationships. Co-resilience means that the resilience of either pastoralism or farming depends on the resilience of the other, which in turn shapes their relationships and sustainability. Toward that end, the project has moved toward a more inclusive approach, by transitioning from targeting households and communities toward working with “catchments areas”<sup>3</sup> where natural resources are shared by different communities as part of the wider socio-ecological system.

Within these catchments, consortium members facilitate dialogue-based activities through local community action groups and catchment-level NRM forums, which are intended to create more inclusive consensus-building platforms, ones that allow collaboration and negotiation, and ultimately strengthen local NRM institutions and structures. This process of strengthening NRM institutions and inclusivity is complemented by a process of local construction and management of basic infrastructure to improve the productivity of natural resources.<sup>4</sup>

<sup>3</sup> Taadoud II defines a catchment as an entire area in which natural resources shared.

<sup>4</sup> For example, sand dam construction, gully reclamation, nursery rehabilitation, pasture rehabilitation, public forest re-establishment, seed stores/banks, water harvesting.

# Economic incentives: Participation in INRM projects in times of transforming livelihood strategies

## The role of the economic imperative in shaping the incentive to participate in INRM projects

In Wadi Jaldama and Wadi Abuhadra, users of natural resources perceived INRM projects as interventions that should have a direct impact on households' economic situation through improving access to, use of, and maintenance of natural resources. For many people interviewed in Taadoud II areas, their major incentives to participate in INRM projects are conditioned by the potential feasibility of INRM projects in increasing agricultural productivity; maintaining forests and rangelands; increasing access to water for croplands and livestock; and improving soil fertility.

Indeed, increased abundance of natural resources and their services was a common ambition shaping the people's vision for what access to natural resources should look like in the future. While in some interviews that ambition appeared to be linked to environmental aspirations, e.g., improving forest cover, people linked the environmental value of natural resources to economic incentives like sheds for livestock, improved soil fertility, and marketing of forest fruits. In the words of one community member from Sanabeel, "I hope to wake up tomorrow and see the whole area turned green and covered with *Acacia senegal* trees, and when the NGO people come, they find that we achieved high production from our farms and increased our livestock numbers."

Economic wellbeing is a lens that people used to assess the success of INRM projects. The more economic gains the project makes, the more it is perceived as a successful INRM intervention. Those gains are either achieved through interventions targeting a small group of households or a group of communities who share natural resources within a catchment area. For many community members in Wadi Abuhadra, the increased agricultural

production that farmers experienced as a result of Taadoud II irrigation interventions is an example of the importance of economic gains as incentive for participation in INRM activities. Many community members in Wadi Jaldama indicated that the economic gains beneficiary households made from engaging in Taadoud II farming groups are evidence of the success of Taadoud II INRM intervention.

Although the economic gains INRM projects promote are felt mostly at the household level, their success is also judged at the community and catchment levels. The coverage of the INRM activities (in terms of the number and livelihood diversity of beneficiary households) is the lens through which people assess the impact at community and catchment levels. When asked about the economic gains at the community level, people were concerned about extending these gains to large number of households. However, making sure that these economically feasible activities are not discriminating against any community was a concern shared amongst participants from communities within Taadoud II catchments regardless of whether they benefited or did not benefit from the project's INRM interventions. Moreover, people were not interested in activities that would benefit their community members while damaging the livelihoods of people in other communities. This finding indicates that communities care very much about other communities with whom they share resources and makes it important for implementing agencies to ensure that their interventions are designed in a way that causes no harm to other communities and prevents damaging trust in the INRM approach they adopt (see Boxes 2 and 3).

Respondents from the communities within the catchment that have not benefited from Taadoud II activities perceived themselves as being marginalized by the project. In Wadi Jaldama, for example, communities that have not benefited from



the agricultural activities expected to benefit from the reforestation activities that were designed to cover all the communities within the catchment. Unfortunately, these activities have not been completed, which means that these communities have not realized any material gains from the project (see Box 3). In the words of a community member from Um Sayala *damrah*<sup>5</sup> of Wadi Jaldama, “There was no justice in the distribution of NRM

services between communities. We felt that the activities were planned for specific communities.” Maintaining community trust in the NGO, let alone in its INRM approach, requires sticking to the original commitments made as well as transparency and clear communications in terms of what is feasible and what is not possible to accomplish within the project timeframe.

### Box 2. Taadoud II NRM approach in Wadi Abuhamra

In Wadi Abuhamra, the NRM forum decided to improve the management of Wadi Abuhamra catchment through constructing dams and terraces. In Um Dressaya, the project constructed a diversion dam to prevent the water from flowing outside the wadi stream and an earth dam for irrigation. The project also established small terraces in Dar El Salam to recharge underground reservoirs.

The dams that were established in Um Dressaya had a very positive impact in Um Dressaya and Shangil Tobay as wide areas were covered by irrigation services in both communities. Both dams have served through two rainy seasons, although the community now reports they need rehabilitation due to cracks and collapse in parts, which some community members linked to subsequent flooding. CAFOD (a Taadoud partner) is taking steps to rehabilitate the dams and respond to community concerns. This experience illustrates the importance of reviewing and responding to both the technical feasibility and rehabilitation needs of engineering projects and their social and environmental impact.

### Box 3. Taadoud II NRM approach in Wadi Jaldama

In Wadi Jaldama, the NRM forum focused on the issue of deforestation as a major NRM issue in the catchment and adopted a combination of strategies to tackle that issue. These strategies included awareness raising around the issue of deforestation and promoting the use of wood alternatives in fortifying water wells and in farm fencing. The project has a plan to establish a community nursery to produce tree seedlings to be used by farmers as a natural fence for their farms. In addition to tackling the issue of deforestation, the project aimed to support vulnerable households through improved irrigation for wadi cultivation by establishing farming groups in various locations and supporting them with irrigation pumps.

The members of the farming groups that were established and supported with wells and irrigation pumps experienced improved income. In one of the villages, the male farming group included all the men from across the community. On one farm they work in shifts and invest the revenues in public goods like schools and mosques. Female farming groups have also helped many poor women to increase and sustain their income from wadi cultivation. However, the scale of the farming groups activities is very narrow and benefited a small number of households within the agro-pastoralist communities. This small number of beneficiaries could be attributed to the difficulty of allocating scarce wadi lands to a large number of vulnerable households. All these farming groups were formed in villages, but none were established in a damrah, although most of the pastoralist inhabitants of these damrah are also involved in wadi cultivation. Moreover, the community nurseries that are intended to produce seedlings for the whole catchment appear to have stalled due to lack of funding.

<sup>5</sup> *Damrah* is a home settlement for pastoralists.

## The transforming livelihood strategies of Wadi Jaldama and Wadi Abuhamra

The changes to and transformation of people's livelihoods in Darfur have influenced their incentives for participating in INRM interventions. The increasing economic imperative plays a crucial role in shaping the transformation toward a cash economy. Taadoud II catchments are no exception. Households within these catchments want to ensure that their food and cash needs can be met by the livelihood strategies they adopt.

Over years, the economic motives have changed due to various contextual factors. Of particular importance were large demographic shifts (population increase and migration) as well as protracted and complex conflicts and intermittent droughts and floods. The improved access to markets and availability of agricultural technology were also factors at play. Communities in both catchments adapted their livelihood strategies according to these contextual changes. At the same time, these contextual changes led to shifts in the way people use natural resources and contributed to changes in NRM institutions.

In both catchment areas, the demand for land and other natural resources has dramatically increased due to population increases, migration, and the presence of internally displaced persons (IDPs). In Wadi Abuhamra, the droughts of 1983/84 and 1991 led to massive environmental migration from drought-affected areas in North Darfur to communities within the catchment areas where the economic potential is high and natural resources are available. Abuhamra also experienced settlement of IDPs from different parts of Darfur after the eruption of Darfur conflicts. In both catchments, many mobile pastoralist communities from diverse tribal backgrounds settled, shortened their travel mobility,<sup>6</sup> and are increasingly involved in cultivation. The shortening of travel mobility took place as a result of blocked migratory routes and loss of livestock due to theft or animal diseases. Additional factors that have led herders to reduce their travel mobility are their concerns about risks of insecurity in more

distant locations and the need to balance household labor demands given their increasing livelihood diversification (Suliman and Young 2019). These changes in long-distance migration patterns put increasing pressure on pastures and water for livestock in the grazing areas closer to communities (Suliman and Young 2019). Moreover, we found a growing trend of increasing the numbers of livestock kept by households as a result of improved security, which concurs with the earlier findings of the Taadoud II NRM assessment in North Darfur. Wadi Jaldama communities are aware that the grazing areas in the community vicinity are insufficient to meet the needs of herds all year round.

While demand for water for livestock decreased amongst agro-pastoralists households during the conflict years, the demand for water for cultivation increased due to the move toward continuous cultivation. This move toward continuous cultivation is a strategy widely adopted by agro-pastoralists households to meet their need for cash. They cannot meet their need for cash by relying on rainy season cultivation in the increasingly smaller parcels of land available to households. This smaller household farm size is a result of increased population whereby access to land is mainly secured through inheritance. It is also a result of the decline of other livelihood options, particularly the loss of livestock due to insecurity and animal disease during the conflict years.

Indeed, the Wadi Jaldama area is a stark example of the complex situation that Darfuri livelihoods have been exposed to over the past four decades or more. People in Wadi Jaldama lost their livestock under the combined pressure of droughts in the 80s and 90s as well as the insecurity associated with Darfur's web of different conflicts. Moreover, successive drought cycles had a severe damaging impact on the gum arabic sector in Wadi Jaldama as many *Acacia senegal* trees could not withstand the severity of the 80s and 90s droughts.

Although these tough events presented real challenges to the resilience of the historically

<sup>6</sup> Travel mobility is the long-distance mobility between dry and rainy season grazing areas, while grazing mobility is the day-to-day herd movements while grazing in a particular area (Turner and Schlecht 2019).

adapted livelihoods in the region, some structural developments provided people with opportunities and economic incentive in accessing natural resources, but with different strategies. These developments include the completion of Omdurman Road, which allowed farmers to access big markets in central Sudan, as well as enhanced access to improved agricultural technologies like irrigation pumps and tractors. While these developments provided agro-pastoralist communities with opportunities to increase their income from cultivation, it also presented a challenge for mobile pastoralists as it limited their access to the natural resources of rangelands and water. The challenges faced by mobile pastoralists as a result of expansion of crop lands is well recognized by local government executives and Native Administration leaders. According to the executive director of Dar El Salam locality, "There is an expansion of cultivation lands at the expense of rangelands. Last year, pastoralists organized a strike in front of the locality because there were no rangelands where they can take their animals to. Dar El Salam is being invaded by commercial farmers who are getting concessions from sheikhs, and no land is left for livestock to use."

To conclude, economic incentives are an important factor influencing how people develop strategies

for their natural resource-based livelihoods, which are not limited to their participation in INRM projects. Many external factors are involved in transforming people's strategies in a way that fulfills their economic goals. In making changes to their livelihood strategies and practices, people may dispense with or move away from the NRM institutions that organized the way they share natural resources with other users in the first place. The starkest examples of this move away from traditional NRM institutions is the demise of the *talaig*<sup>7</sup> that facilitated pastoralist herds' access to harvested fields, with the increasing trends of trade in crop residues. In Wadi Jaldama, people indicated that there is no *talaig* in the wadi, meaning that *talaig* cannot be practiced in wadi land because the land is always under cultivation. The prevention of *talaig* by wadi farmers limits pastoralists' access to crop residues and wadi water. Similarly, as the demand for the most productive land increases and wadi land is increasingly privatized, access to this land by women is increasingly difficult (except as hired workers) (Young and Ismail 2019). As other users experience increasing pressures from the breaking of institutions, it becomes very difficult to realize INRM principles of equity, complementarity, and sustainability.

## Restoring relationships and social cohesion: The peacebuilding incentive of INRM

### Relationships as means to realize people's potential from accessing natural resources

Farming and pastoralism are the major livelihoods practiced by the majority of the Darfur's rural populations. Both livelihoods sub-systems are well adapted to the environmental variability characterizing the region's environment, within which they have co-evolved and thrived. Understanding farming and pastoralism as sub-systems implies understanding that they are integrated livelihood strategies within the wider

socio-ecological system of Darfur (Young and Ismail 2019). At the heart of their co-evolution and adaptation to the extreme environmental variability of the region has been the various social and practical ways through which they are integrated. This integration is governed by institutions that regulate their access to natural resources through peaceful means.

Understood as integrated sub-systems, the resilience of farming and pastoralism depend on the resilience

<sup>7</sup> *Talaig* is a customary institution that allows pastoralist herds to access harvested fields to graze their animals on crop residues. The timing of the *talaig* is usually negotiated between the Native Administration leaders of farming and pastoralist groups.



of each other, i.e., farming cannot be resilient without pastoralism being resilient and pastoralism cannot be resilient without farming being resilient. The resilience of both sub-systems is what shapes the resilience of the socio-ecological system. The more enhanced the complementarity between pastoralism and farming in Darfur, the greater the resilience of both livelihood sub-systems. As such, building the resilience of livelihoods sub-systems becomes a matter of strengthening the relationships of those involved in these two sub-systems.

Indeed, the incentive to participate in INRM interventions is not only driven by economic motives. The discussions we had with people from Wadi Abuhamra and Wadi Jaldama indicate that people across the livelihoods' spectrum perceive relationships as central for achieving their potential. When discussing relationships between different users, people mostly mention the disrupted relationship between farmers and pastoralists. This relationship is clearly the most damaged one between users of natural resources in the Darfur region. It has come about as a result of long-term processes of marginalization, manipulation, and exclusion by national and international actors along livelihood lines. However, both farmers and pastoralists indicated that they are exhausted by the protracted hostilities and disputes, and that they want to move toward a more stable and cooperative future shaped by social cohesion.

The people of Wadi Jaldama and Wadi Abuhamra perceive INRM as a potentially successful approach for building consensus around the rights of different users in accessing natural resources. The participatory and inclusive nature of the approach makes it appealing to the aspirations of these communities in terms of promoting social cohesions and preventing disputes through recognizing the rights of all users to natural resources. For many of natural resource users interviewed, peacebuilding through INRM can only be achieved through giving different users as well as different segments of the community, particularly women and youth, a voice in the design of these interventions. Communities see this as the best way to address their needs, and promote synergy and cooperation. In the words of

one participant, "This will bring people together and unite them."

When people discuss their aspirations for INRM, they link that with past and current practices and initiatives. Many agro-pastoralists want the *talaig* to be organized as it used to be. Mobile pastoralists used to send their sheikhs to coordinate its timing with the agro-pastoralists' sheikhs. They see that as the best way to restore trust between different groups. However, these are the kinds of challenges that require genuine engagement and proper consideration from all stakeholders.

Taadoud II made a significantly important move toward inclusivity by reaching out to various users of natural resources in both Wadi Jaldama and Wadi Abuhamra. In both catchment areas, the project managed to establish NRM forums in which different users were included. The forums were multi-stakeholder, including members from forestry, livestock, and agriculture departments at the locality levels. This move was very much appreciated by the communities, who value the NRM forums for their role in planning, implementing, monitoring, and evaluating Taadoud II NRM activities and for their role in strengthening the relationships between different communities and different natural resource users in the area. Leading from behind, Taadoud II is implementing different NRM activities in both areas with a focus on irrigation and reforestation interventions.

The project's attempt to increase the productivity of the natural resource base is an important step toward enhancing the resilience of the production systems that depend on that natural resource base. By moving toward working in catchments, the project aimed to "strengthen local institutions/structures and improve natural resources management (NRM). Taadoud II will create platforms of negotiations & collaboration for previously independent users of natural resources through community action groups (CAGs) (CRS, 2017)."

However, within these two catchment areas, negotiations within the forums were dominated by discussions about how to distribute Taadoud II-

funded natural resource services and overlooked the issues of institutions that organize access to natural resources. As these local institutions continue to evolve and change, they disrupt relationships between different users of natural resources. Our discussions with different stakeholders and natural resource users revealed that the issues of limited access to agricultural land, early *talaig*, blocked migratory routes, reduced areas of rangeland, insecurity, and animal thefts are the key challenges facing agro-pastoralists and mobile pastoralists. Without a multi-stakeholder approach that brings actors at various levels together to address these issues, any other interventions will have very limited impact on the resilience of livelihoods within the socio-ecological system.

Indeed, the project approach to INRM could be made more robust by using the dialogue platforms to initiate discussions amongst different stakeholders about organizing access to different natural resource users in integrated, equitable, and sustainable ways. Some of the users we interviewed believe that NGOs have the capacity to support consensus-building processes around governance of natural resources and think they could have a significantly greater impact if they begin to engage with some of these particularly sensitive issues. Over the last six years, the Taadoud program has invested in understanding the social and political sensitivities associated with NRM through its operational research program. It is crucial that the consortium applies these lessons in a more strategic and practical way, by more explicitly addressing the integration of NRM, through capacity building and the fullest possible participation—at scale, meaning including the different levels of authority—to renegotiate and authorize new ways of working.

In Darfur's context of protracted and multi-level conflicts, the risks of not fully understanding the multi-level processes and factors driving conflict are high. The risks are further exacerbated by Darfur's conflict legacy of divisions, which in many cases implies division between livelihood specializations by identity groups; i.e., certain communities specialize in camel or cattle pastoralism, while others might specialize in rainfed farming. For example, although

mobile pastoralism is practiced by different groups from a wide range of identity backgrounds, it is often wrongly associated only with Arab identity groups. While many of those with Arab identity backgrounds have settled and are involved in cultivation more than pastoralism, the idea that they have become farmers, often long before the beginning of the Darfur conflict, goes unrecognized by many development actors. That nonrecognition is why they are often excluded from agricultural development programs. Indeed, an understanding of the livelihoods specializations of people as integral parts of a wider socio-ecological system is the right entry point to conflict-sensitive INRM programming in Darfur. Working with this understanding, development actors can contribute positively to conflict resolution through promoting cooperation between different users of natural resources. Conversely, interventions that work with one specialization without recognizing or understanding the way it interacts with other specializations is likely to exacerbate tensions and conflict between the two.

At the local level, there are attempts to address these issues through restoring relationships between different communities and addressing the needs of different users with community-led initiatives. The community-based organization (CBO) Voluntary Network for Rural Helping and Development (VNRHD), for example, opened a blocked migratory route passing between Um Dressay and Shangil Tobay in Abuhadra catchment this year. This initiative was appreciated by some of the mobile pastoralists interviewed. In Um Dressay, there is a sheikh who specializes in mediating between herders and farmers whenever a dispute erupts between them. In Dar El Salam, community leaders from the sedentary community organized a visit to community leaders of mobile pastoralists in an effort to rebuild relationships with them. Moreover, communities around Wadi Abuhadra are committed to seeking the consent of one another whenever they implement community-led water interventions that might affect other communities. These local experiences provide development actors and policy makers with an opportunity to promote collaborative institutions around natural resources.

# Communities' perspective on how to realize INRM projects

Interviewees in both case study catchment areas perceive that promoting INRM values of integration, justice, and sustainability is essential for a variety of reasons. The major reason behind their interest in INRM is organizing access to shared natural resources for different users by agreeing on clear rules that govern access to natural resources for different users. For them, doing so would make access to natural resources organized to accommodate their different needs in different seasons based on mutually accepted agreements.

There is agreement amongst different stakeholders interviewed in both catchments about the approach that needs to be adopted to achieve the objectives of INRM. They agree it needs to be an integrated approach that could be achieved through a combination of consensus building, awareness raising, and livelihoods support.

In terms of consensus building, an INRM conference in different catchments is seen as the best way for different stakeholders and natural resources users to reach agreements on how to organize access to natural resources in a sustainable way. Different users should be represented by their Native Administration leaders, while women and youth should be represented by the leaders of their associations. During these conferences, natural resource users within a certain catchment should discuss their major NRM issues and try to reach agreements around them. In order to be credible and legitimate, these agreements need to protect the rights of all users and be supported by the government.

Users and stakeholders both argued that building consensus around natural resources is a top priority for promoting INRM but believed consensus cannot be realized without raising awareness of the importance of INRM amongst Native Administration leaders as well as farmers and pastoralists. Promoting awareness must focus on the issues of sustainability and justice while aiming to enhance

coexistence and tolerance within communities and amongst different communities. Some participants stressed the important role that media outlets, particularly radio stations, could play in raising the public's awareness of the advantages of INRM.

Given the various economic and environmental challenges facing the communities, stakeholders and community members interviewed stressed some of the issues that need to be tackled. They stressed the importance of supporting livelihoods and providing alternative energy sources. This could be achieved by improving the productivity of natural resources to reduce the demand for land and reduce competition between different users. From that perspective, productivity could be enhanced by investing in reforestation, water services for farming and pastoralism, agricultural extension, and veterinary services.

For many stakeholders, selling of firewood and the use of firewood as a cooking fuel are maladaptive strategies adopted by people to cope with the economic hardships they are facing and because they lack other alternative energy sources. These maladaptive strategies are adopted at a very wide scale and are the main drivers behind deforestation in both catchments. Stakeholders believe that without creating employment opportunities for youth and without providing alternative energy sources, these maladaptive strategies cannot be prevented, and deforestation rates will increase.

## INRM: A multi-stakeholder process

Embedding INRM principles within any catchment institution concerned with shared natural resources is a multi-stakeholder process that requires support from different actors at different levels. In our interviews with different livelihood users and stakeholders, they expressed their expectations in terms of how they envisage the role of the Native Administration, government, communities, women, and youth in achieving the goal of INRM within their

catchments. The following is a summary of those expectations.

### The Native Administration

The role of the Native Administration in terms of organizing access to natural resources faces many institutional, political, and capacity challenges. However, the communities in both catchment areas recognize the paramount role that the Native Administration plays and could play in terms of organizing access to natural resources. In the words of one farmer from Shangil Tobay, “In Sudan, there is nothing better than customs. Native Administration leaders know these customs, and they can bring people together around them.”

All those we interviewed perceive Native Administration leaders as the right representatives of communities in any consensus-building process around INRM because of their wealth of experience in organizing access to natural resources and resolving conflicts around them. The respect that Native Administration leaders have amongst their communities qualifies them to play a major role in raising the awareness of their communities about INRM and in guiding them through implementation of any agreements with other communities within the catchment.

### The government

Despite its limited role in regulating access to natural resources and in promoting natural resource services in both catchments, people have high expectations for the government in terms of INRM. People recall the positive role the Forests National Corporation used to play in forest conservation in the past through its presence in all the areas, which allowed it to police forests effectively.

In terms of INRM, the government at different levels is expected to play a key role in building the relationships between communities through facilitating dialogue between Native Administration leaders in different catchment areas. This mediator role is expected to be complemented with technical

and financial support for NRM projects that can promote the principles of INRM in different catchments. Moreover, the government is perceived as the major guarantor of security. It must play an active role in policing forests, protecting livestock migratory routes, and ensuring the overall security of people and their assets.

### The community

Although the Native Administration is expected to play a leading role in negotiating INRM regulations within catchment areas, community members’ commitment to and respect for these regulations are considered crucial for promoting INRM in any catchment. Collective actions like *nafeers*<sup>8</sup> are perceived as an essential role for the communities to play in INRM interventions to enhance the sense of ownership for any services established and to ensure sustainability.

Within the community, certain roles are associated with men and women. Interviewees explained that to ensure women and youth participation in INRM initiatives, youth and women associations should be part of any consensus-building process and any established decision-making forums. While women’s roles are always weakened by social norms, their participation in developing INRM regulations within their catchment is perceived by many women and men interviewed as important for enhancing their roles with regards to NRM.

The majority of those interviewed stressed the importance of benefiting from the energy and innovation that youth could contribute to INRM projects. Because of their higher levels of education, youth are considered a very creative and innovative group that can bring new ideas to help their communities improve NRM practices. Moreover, youth are perceived as peacebuilding agents because of their relationship networks that frequently extend along geographical and tribal lines and that allow them to contribute toward building relationships between different communities.

<sup>8</sup> Collective labor in support of a household or for realizing a public good.

### NGOs and other development actors

The experiences and contributions of NGOs were very much valued by the majority of those we interviewed. Interviewees expected NGOs to lead INRM and peacebuilding interventions using robust

technical approaches, which at the same time help to restore relationships. Additionally, NGOs have a role in building the capacities of the local actors around INRM approaches as well as in managing, monitoring, and evaluating NRM interventions.

## Discussion and conclusions

Since Taadoud I, the consortium members were able to adapt their approaches by continuously critiquing their work to improve the impact of the program. An ambitious shift was the transition the project made from targeting households and communities toward targeting catchments of natural resources shared by different livelihoods specializations. This transition implied a paradigm shift, through which farming and pastoralism are perceived as complementary livelihoods specializations integrated in a wider socio-ecological system.

Our findings indicate that natural resource users' key incentives to participate in INRM interventions are the potential economic gains from supporting livelihoods as well as restoring relationships between the different natural resource users. The economic incentive plays an important role in shaping natural resource users' incentive to participate in natural resource interventions. For these communities, participating in an INRM intervention means achieving significant economic gains to support them in making ends meet. That could be achieved through improving access to, use of, and maintenance of natural resources. It is worth mentioning that economic incentives are an integral part of Darfuri livelihoods transformation within a context shaped by challenges and opportunities for livelihoods development.

The Taadoud INRM interventions investing in irrigation resulted in significant improvement in the economic wellbeing of the beneficiary households and communities in the Wadi Jaldama and Wadi Abuhamra interventions. However, the impact of those activities could have been higher if they had been distributed in a more inclusive way.

The incentives to participate in INRM interventions are not merely economic. People with different livelihood strategies recognize the need to organize access to natural resources in a way that can help in maintaining good relationships with one another. This recognition is derived from the history of complementarity between different users as well as the recent experience of damaged relationships since the eruption of the Darfur conflict and its impact on NRM institutions. Of particular importance is the disruption to the relationships between producers, the impact on both groups (farmers and pastoralists), and the observation from this and other Taadoud research that both farmers and pastoralists want a peaceful future. There are also examples of serious local initiatives that aim to restore relationships and cooperation between farmers and pastoralists.

In North Darfur, Taadoud II was able to achieve key successes in promoting an inclusive approach to INRM. In the two catchment areas visited as part of the development of this brief, the project established an NRM forum with representation from different natural resource users (farmers and pastoralists), the government departments, and local civil society organizations. Different natural resource users, forum members, and government departments interviewed indicated that the NRM forum created a space for different users within different communities to plan and implement Taadoud II NRM interventions. INRM forums are convened regularly to follow up on the progress of the project activities.

The efforts exerted in operationalizing NRM forums in Wadi Jaldama and Wadi Abuhamra are pivotal



steps toward INRM in Darfur. The shift toward working with catchments of integrated livelihoods specialization is a radical one, compared to more than a decade of humanitarian delivery targeting communities and households. Working with catchments is as important for conflict sensitivity as it is for resilience building. It implies proper understanding of the context, particularly the way natural resources are involved in local conflicts. Based on that understanding, projects need to consider how their activities affect the conflict context to ensure positive impact on the local conflict-related dynamics and to minimize the risk of fueling grievances and conflicts.

In relation to conflict sensitivity, Taadoud II experiences show noticeable successes. Overall, the space the NRM forums provided is widely appreciated for its role in promoting social cohesion between the communities within these catchments. The project contributions to social cohesion began to emerge in 2018 when the project peacebuilding committee in North Darfur supported farmers and pastoralists to settle a dispute over blocked migratory route in Azagarfah, north of Al Fashir (Satti, Sulieman et al. 2020). Without that initiative, a lot of damage could have happened to crops, and the dispute could have escalated into violent confrontation.

While the project manifests institutional capacities to move toward inclusive and conflict-sensitive resilience programming, its approach suffered some limitations. In terms of practical limitations, there are gaps in the representation of mobile pastoralists in Wadi Abuhamra. While some groups of mobile pastoralists have benefited from the project activities, not all mobile pastoralist groups are represented in the NRM forum. In Wadi Jaldama, representation of mobile pastoralists is clear in the NRM forum, but they have not benefited from any of the NRM activities. Missing certain pastoralist groups in local committees or groups is not unique to Taadoud II, but rather a larger problem affecting a wide range of programs in Darfur. However, Taadoud II is in a unique position to find ways to promote greater inclusivity. The project can learn from past experiences of other development actors who managed to engage with these groups in INRM

interventions, such as in the demarcation of livestock migratory routes.

Beside the gaps in representation and targeting, practical limitations in establishing NRM services had a negative impact on the project approach in the case study areas. In Wadi Jaldama, the project planned to establish a community nursery in one of the villages to produce seedlings for the whole catchment, but the construction is uncompleted. In Abuhamra, the project established two dams that suffered serious damage one year after construction. The project can make efforts to reverse the damage caused and to ensure that basic infrastructure facilities are established based on robust technical feasibility studies as well as social and environmental impact assessments.

Despite the success of many of the project dialogue-based activities and physical activities, engaging with the governance issues that natural resources users face in both catchments was a structural limitation in the project. NRM forums in both areas were consumed in discussions about implementation of Taadoud II activities. These forums have the potential for holding discussions about how to maintain equitable access to natural resources or how to avoid the disruption caused by incidences of early *talaig*, blockage of migratory routes, or exchange of inputs between farmers and pastoralists. Indeed, these are some of the continuing and priority issues of concern for natural resource users in both catchments and the rest of rural Darfur. Exploring opportunities to promote INRM requires exploring opportunities and strategies to facilitate discussions around governance between different users of natural resources.

Given the project's relatively recent engagement in INRM, there is some unrealized potential in the Taadoud II approach. The lessons drawn in this brief from Taadoud II experience provide opportunities for learning and development. A strength of Taadoud II's approach is the shift to working at catchment level and applying this catchment-level focus across the five states of Darfur.

Taadoud II partners would strategically benefit from engaging critically with the strategies, approaches,

and practices they adopt toward realizing the project goals. Not every project activity can be expected to be a success given that projects (like Taadoud) are working in difficult places with complex problems (Glennerster 2019). The successes evident in these case studies in promoting participation and moving toward greater integration are of the kind that

have significantly more lasting impacts compared to short-term technical fixes, if past experience is anything to go by. It is these areas that Taadoud needs to learn from and invest in to more effectively strengthen the structural resilience of livelihoods that is upheld by INRM institutions, as part of the wider socio-ecological system.

## Recommendations

1. Taadoud and other actors should seek to learn from and build upon relevant earlier experience of INRM in Darfur, recognizing that some catchments have historical experience and therefore are better positioned to adopt participatory approaches and promote inclusivity, and thereby potentially serve as examples of conflict-sensitive integration.
2. As people's incentive to participate in INRM interventions is driven by their aspirations for economic prosperity and peace, it is very important that current and future interventions take these incentives into consideration. Natural resource-based livelihoods need to be supported with interventions that can enhance all users' economic wellbeing while at the same time facilitating developing NRM institutions that do not discriminate against any user. In that sense, resilience building is not only an economic endeavor but also a relational matter.
3. There are opportunities for cross-learning between catchments, and from other relevant experience led by other development actors, by engaging, collaborating, and sharing INRM experiences to promote shared understanding and strengthen the collective institutional memory. For example, it would be beneficial to share the learning about successes and failures of different actors' experiences, and their relevant and appropriate ways of working, and think about how they might be replicated.
4. Programing in Darfur has made significant shifts between program modalities, which has required flexibility in making complex and difficult transitions: for example, from development to humanitarian action and from neutral NRM to conflict-sensitive INRM. There are important lessons for the foreseeable future. Conflict sensitivity is needed across all modalities. Youth and women associations should be part of any consensus-building process and any established decision-making forums to ensure the participation of women and youth in INRM initiatives.
5. Communities in Darfur have experiences that evolved throughout a long history of handling NRM issues in the region. The communal memory of these communities is rich with various traditional ways of forging agreements between communities around natural resources. Successful INRM interventions need to learn from these experiences and build on them. They provide a very good opportunity for development actors to support the realization of the goals of INRM.

# References

- Assal, M. A. M. (2006). "Sudan: Identity and conflict over natural resources." *Development* 49 (3): 101-105.
- Behnke, R. H. (1985). Open-range management and property rights in pastoral Africa: A case of spontaneous range enclosure in South Darfur, Sudan. Paper 20f. Overseas Development Institute, Pastoral Development Network, London.
- Bromwich, B. (2015). "Nexus meets crisis: A review of conflict, natural resources and the humanitarian response in Darfur with reference to the water-energy-food nexus." *International Journal of Water Resources Development* 31(3): 375-392.
- CRS, 2017. *Taadoud II: Continuing the Transition to Development*: Catholic Relief Services. Project Document
- Glennerster, R. (2019). Lessons from a year at DFID. [https://medium.com/@DFID\\_Research/lessons-from-a-year-at-dfid-d11d9947f90](https://medium.com/@DFID_Research/lessons-from-a-year-at-dfid-d11d9947f90).
- Satti, H. A., Sulieman, H., Young, H. & Radday, A., 2020. Natural Resources Management: Local Perspectives from North and Central Darfur, Boston: Feinstein International Center.
- Strachan, P. and C. Peters. (1997). *Empowering Communities: A casebook from West Sudan*. Oxfam GB: Oxford.
- Sulieman, H. and H. Young. (2019). Transforming pastoralist mobility in West Darfur: Understanding continuity and change. Building Resilience in Chad and Sudan (BRICS) project. Concern Worldwide and Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University, Boston.
- Turner, M. D. and E. Schlecht. (2019). Livestock mobility in sub-Saharan Africa: A critical review. *Pastoralism: Research, Policy and Practice* 9 (13). doi:<https://doi.org/10.1186/s13570-019-0150-z>.
- United Nations Environment Programme (UNEP). (2007). Sudan, post-conflict environmental assessment. UNEP, Nairobi.
- Young, H., A. M. Osman, Y. Aklilu, R. Dale, B. Badri and A. J. Fuddle. (2005). Darfur: Livelihoods under Siege. Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University, Boston.
- Young, H., and M. A. Ismail. 2019. Complexity, continuity and change: Livelihood resilience in the Darfur region of Sudan. *Disasters special issue: Resilience from the ground up* 43 (S3): S318-S344.