

Good practice on the rehabilitation of basins in the Korama valley colonised by *Typha australis*: transforming constraints into opportunities

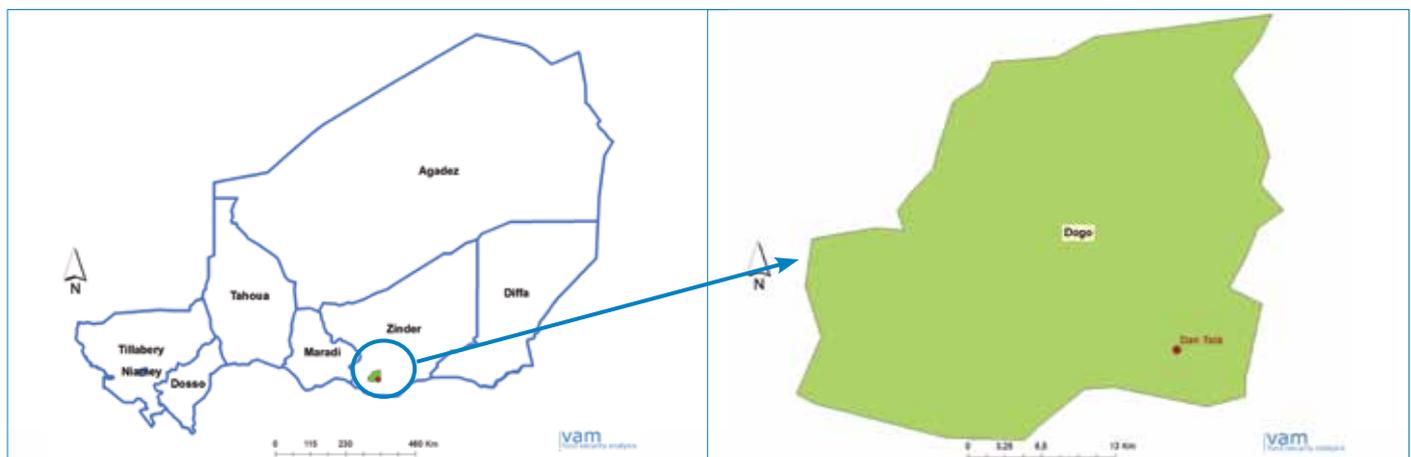


Photo: WFP/Zouloukalleyni Dourfaye

Context

The Korama valley in the convergence municipality of Dogo (Zinder) is a fossil watercourses where the relics are constituted by a chain of basins in the inter dune areas, mainly dominated by capillary rise.

The site of Dantata, consisting of eight villages (Dantalla, Dantata, Doulaye Amme, Douleye Beti Garin, MI.Zagui, Kalgoma, Kandawa, N Gao) is a succession of ponds interspersed by dune. The ponds are threatened by *Typha australis*. It is a proliferating plant which colonises water bodies causing ecological imbalance, mostly on the agricultural and fishery productions. This situation used to bring the producers in food insecure situation in view of chronic deficits every year.



Summary of intervention

The complexity of the response to deliver, the multitude of needs and the potentials around Dantata site brought the Rome Based United Nations Agencies – RBA (FAO, IFAD, WFP), with other partners, namely the technical services, NGO Initiative for Basic Development (IDB), Regional Chamber of Agriculture (CRA) of Zinder to put together their expertise and experience to improve the resilience of the communities by creating synergies and complementarities with the implementation of weed cutting and cleaning work in ponds and other complementary activities. More

specifically, WFP took charge of weed cutting and cleaning in ponds as well as trainings on compost making and mulching. IFAD completed a part of the weed cutting and cleaning in ponds. FAO and IFAD worked on exploitation of the rehabilitated sites through development of vegetable gardening sites, provision of training and inputs to fishermen, and biological protection of the sites (sheltering hedgerows and wind protection). Additionally WFP provided sensitisation sessions on the Key Family Practices (KFP) at the sites, and community based screening of malnutrition as well as treatment.

Approach

Diagnosis and planning based on the participatory approach were carried out with communities, technical services and other actors to identify the community specific problems, needs and priorities with gender and environmental aspects in order to find adequate solutions. A common beneficiary targeting was carried out through the Household Economy Approach (HEA) in which only the households classified as very poor were identified as beneficiaries and confirmed with a door-to-door approach to ensure the reliability of the result. The negotiation over the land property has been

conducted to enable the very poor to have an access to the rehabilitated plots through social agreement with customary landowners. One common implementing partner, NGO IDB, was contracted by three agencies. Weed cutting and cleaning in ponds were carried out by mixed groups of 20 beneficiaries with **a clear division of labour between women and men**. The beneficiaries devoted 4 days for the physical work, 1 day for management of residues, 1 day for sensitisation and one day for rest.

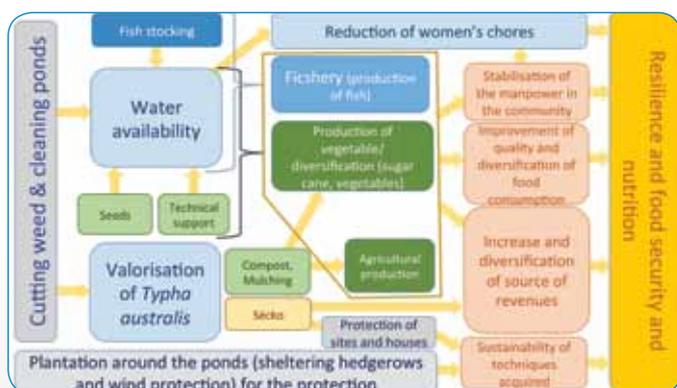
The work consisted of:

<p>1. Cut weeds (<i>Typha australis</i>) at the bottom of the pond</p> 	<p>2. Remove the stump and make piles</p> 	<p>3. Bring the biomass away from the pond about 50m from the bank</p> 	<p>4. Make compost with the residues from the weed cutting (<i>Thypha australis</i>)</p> 
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The complementary activities, namely stocking the cleaned ponds with fish, realisation of sheltering hedgerows and wind protection (plantation for the protection of ponds) and rehabilitation of vegetable gardening sites, were carried out.

Achieved results

The package of activities around the weed cutting and cleaning in ponds contributed to improve the resilience of 310 direct beneficiary households and more than 410 indirect beneficiary households. The diagram below shows the causal linkage.



More precisely, the obtained results are as follows:

- **Improvement of the sustainable access to water** owing to the pond cleaning and weed

cutting activities. This allowed not only to **practice the vegetable gardening and fishery activities** but also to **reduce the time to fetch water** for the domestic use, especially the chore reserved essentially for women and children.

- **Diversification of irrigated crops** (potatoes, rice, sugar cane etc. with 66 tons of production in 2015 – 2016) and **development of fishing** (estimated fish production of 2.13 tons in 2016). This has created **opportunities of revenues** and contributed to **food diversification** and **quality change in the diet habit**.
- Improvement of production factors such as **reduction of seed-eating birds on crops** owing to the destruction of their habitats, *Typha australis* in the basin, improvement of the fertility of the soil and reduction of their sensibility to erosion owing to compost and mulching that brought an increase in yields of crops;
- **Net improvement of vulnerability status of the beneficiaries**. According to the survey by the IDB in 2016, more than 73% of the direct beneficiaries have left the status "very poor".

Total number of direct beneficiaries initially very poor (before the programme)	Results of the graduation (socio-economic status with the programme)			
	Very poor	Poor	Middle	Rich
310	83	116	76	35

(source : enquête de progression des ménages, IDB 2016)

Factors of success, constraints and lessons learned

- **Engagement of the communities and behaviour change of the populations** have played a central role to implement quality works and to achieve the objective as well as the **indirect consequences**. The involvement of the beneficiaries from the beginning of the project has created their interests and engagements in the activities. The improvement of access to water and vegetable production activities after certain moment of the implementation have enabled the communities to understand the value and the advantage to invest in the works. This engagement ensured the **respect of the technique** of pond cleaning which is indispensable for the sustainability. This allowed also to scale up the practices in other sites by the beneficiaries and non-beneficiaries. Volunteers of the communities, namely their investments in their community works such as hobbing and rehabilitation of the 15 drillings, purchase of land to build a school have created combined effects to achieve the objective. This engagement has been

created through **the participatory planning** which enabled to empower the populations in the decision making, **technical assistance**, and **sensitisations** as well as **accompaniment and close follow-up** by **technical services, RBA and implement partners**.

- **Valorisation of *Typha australis*** for compost and mulching contributing to the improvement of the fertility and the protection of the soil and to make baskets and séckos (wall made of straws) which enabled the auto-use as well as the diversification and increase of revenue. The populations used these séckos to fence houses and vegetable garden sites developed by the programme. ***Typha australis* which used to threaten and hinder the agricultural productions of the populations now contributes to improve the agricultural production and security of the communities as well as to the diversification of revenues.**
- **Creation of female-male mixed teams with**



Photo: WFP/Rina Uchida



Photo: WFP/Rina Uchida

division of labour between women and men, taking into account their physical capacities. This contributed to the effective implementation of the activities and to the equal access to resources. It allowed the women's empowerment in the community works, decision making etc. Through the activities, the men understand better the importance of promoting women's participation in the community activities and respect them.

- **Formalisation of the RBA collaboration** by the joint operational plan which clarifies the division of labour of each agency has enabled to optimise financial and human resources. The scale down of the weed cutting and pond cleaning activities due to the insufficient resource of WFP was complemented by ProDAF-FIDA, which allowed to continue the activities with the same scale. **Without bringing the whole expertise, such good results could not have been achieved.** Only the improvement of access to water could not have easily allowed the very poor households to practice vegetable gardening. Completing with material and technical supports has enabled to achieve the results and contributed to building resilience of the populations. **The joint monitoring missions and supervisions with**

the decentralised technical services have also played an important role to ensure the effective implementation of the activities. The presence of the offices in the same premises (FAO and WFP) or nearby (ProDAF-FIDA, IDB and the direction of environment) and their involvement to achieve the best implementation have also facilitated the collaboration.

- **Common target of the beneficiaries** which has contributed to achieve the critical mass in a more effective and efficient way. By receiving the package of the supports, the beneficiaries have acquired a holistic set of pond cleaning activities and techniques. This contributed effectively to reinforce their resilience in the long-term. The difficulties related to the beneficiary targeting at the beginning of the programme has been solved by integrating new indicators with the "door to door" approach.
- **Depth of the certain ponds and the presence of scorpions in *Typha australis***. The constraints have been overcome owing to the local solution (put traditional product) and the volunteer (reorganise the participants according to the abilities to swim).

Sustainability and replication

The key elements to ensure the sustainability of results are amongst others:

- **Inclusion of communities and decentralised technical services** in the whole programme cycle from the beginning of the planning coupled with technical supports which contribute to develop their ownership as well as the sustainability and the scale-up of gains.
- **Diversification of productive activities around the rehabilitated areas** prevents the beneficiaries from adopting negative coping strategies (land sales, usurer loans, early sales of products) and to protect and valorise the assets created.
- **Installation of fences around the treated ponds** enables to protect them from silting and animals.
- **Obtain a consensus around the land property** with formal certificate of the land transaction has been constituted a key element.

In order to reproduce this activity, it is important to ensure:

- **A good understanding of the populations** on the clear objective and the mechanism, the results and the weed cutting and pond cleaning techniques;
- **The command of the weed cutting and pond cleaning techniques** which allows the communities themselves to rehabilitate their basins.

Conclusion

The transformation of a constraint (*Typha australis*) to opportunities (compost, piles and handcrafts and the strong engagement of all actors with a good understanding of the techniques guaranteed the success.

However, there are still some difficulties to raise such as:

- **Reduction of colonisation capacities of *Typha australis*** by a permanent control in the zones



Photo: WFP/Zouloukalleyni Dourfaye

as well as biological skills in order to improve the technique of the fight against the *Typha australis*;

- **Perpetuation of the land loan agreement** for the vulnerable households;
- **Improvement of the commercialisation** of the vegetable and fish production;
- **Coverage of the activities by the RBA** as well as other agencies in other domains down to the grouped villages level (at the sub-commune level);
- **Inventory of the basins and evaluation of the surfaces to rehabilitate**;
- **Pursuit of the structuration and reinforcement of the capacities of the farmers' organisations**;
- **Development of scientific partnerships with research institutions** to overcome the technical difficulties and improve the quality of work; and
- **Securing the land rights** for the rehabilitated sites.



Photo: IDB/Hamani Karimou

Voice from the field

Houéla Harou, living in the Dan Tata village. "It was known by everyone in the village that before, I did not even own one hen. With the supports of the partners through the activities of cutting weed and cleaning in ponds, today I have 3 goats and I would simply say this activity was the opportunity to leave from the vulnerability".

Cliché Hamani Karimou 2016

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