

METHODOLOGY FOR A PARTICIPATIVE REHABILITATION OF COMMUNAL LANDS

A DOCUMENTATION OF RCBDIA INTERVENTION







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1 Communal land in Southern Region (SNNPRS) - Ethiopia

According to the Southern Nations, Nationalities and Peoples Regional State (SNNPRS) Rural Land Administration and Utilization Proclamation ratified in 2007, a "Communal Holding" is a "land out of government or individual possession and under the common use of the local community as a common holding for grazing, forest and other social services."

Communal lands have been widely used as permanent grazing land. However, with the increasing demographic pressure, uncontrolled overgrazing has resulted in severe degradation of natural vegetation and soil fertility in communal grazing lands and fallow lands, particularly in upland and steep-sloped areas. Communal lands are often characterized by high density of cattle, poor forage quality below livestock needs and high erosion.

Officially, *Kebele* officials are responsible for the management of those communal lands. However, who should manage those sites and how, are still not clearly defined. With no clear indication of management rules, these common resources have been over-used, ¹.

Some *Kebeles* have initiated collective work to protect and rehabilitate degraded communal lands, mainly through mandatory campaign works. The mechanical measures implemented include construction of soil bunds, terraces, diversion ditches, check dams, micro-basins and hillside terraces. The biological measures mainly consist in the exclosure of degraded land from human and animal interference, as well as trees and grass seedling plantation (see example).

Communal land rehabilitation with enclosure

Area closure involves the protection of severely degraded land to restore its productive capacity. There are two major types of area enclosures practiced in Ethiopia: (1) the most common type involves closing off an area from livestock and people so **that natural regeneration of the vegetation** can take place; (2) the second option comprises **closing off degraded land while simultaneously implementing additional measures** such as planting of seedlings, mulching and establishing water harvesting structures to enhance and speed up the regeneration process.

Communal lands are enclosed for natural regeneration, and a site guard may be assigned to further ensure protection. Structural measures such as micro-basins, trenches, and bunds that enhance water infiltration and soil moisture are constructed to increase survival rate of vegetative material planted. Nitrogen-fixing and multipurpose shrubs/trees (for fodder, fuel) such as Acacia, Sesbania sesban, or Leucaen leucocephala are widely grown.

However, in a context of increasing pressure on land and resources, officials are facing funding and human resources difficulties to properly supervise all the works, as well as a lack of motivation of communities, which cast doubt on their sustainability. Added to that, lack of community participation in the planning and supervision of activities combined with an absence of local collective rules established by grassroots groups, the communal lands often remain over-exploited and communal works are not maintained, resulting in continuous erosion damages.

¹ See also, the "Tragedy of the commons", an economic theory of a situation within a shared-resource system where individual users acting independently according to their own self-interest behave contrary to the common good of all users by depleting or spoiling that resource through their collective action https://en.wikipedia.org/wiki/Tragedy of the commons

2. RCBDIA project to support local administration and farmers in communal land rehabilitation

The Regional proclamation previously cited asserts that communal lands should be protected, and people who organize their rehabilitation can get the usufruct, benefitting from the outputs, and a land certificate from the local government. "The government, being the owner of rural land, can change communal rural land holdings to private holdings as may be

necessary. (...) Land holding certificates for communal land shall be prepared in the name of the beneficiary community and kept at the Kebele administration office."

This proclamation aroused RCBDIA interest to support motivated Kebele officials and Development Agents (DA) to work together with "Iddir" committees on collective land rehabilitation. Improving tenure security, working closely with communities, and building the capacities of local institutions are key elements to establish communal land rehabilitation activities. Those activities should also generate economic benefits to households.

RCBDIA provides *Kebele* officials and DA with basic advice, follow-ups and tools to facilitate activities on communal lands. *Kebeles* facilitate water access for communal nurseries, and the procurement of land certificates.

Iddirs represent a traditional system of mutual aid, based on a regular membership fee in exchange for support at the time of funerals or hard blows. They are one of the only forms of authentic collective organization that can be found in rural Ethiopia, used to managing collective goods, fees and memberships, and having their own bylaws. They also benefit from a strong recognition and legitimacy: every farming family from every social class is member of an Iddir, and the management committee of the Iddir is directly selected by the members

In the meanwhile, the RCBDIA team supports *Iddir* groups with all procedures for communal land rehabilitation works, certificate acquisition application, rules and bylaws establishment, as well as basic tools (watering can, seeds, seedlings, shovel or spade) and technical assistance. Most of the time, one communal land is linked with one *Iddir*. When several *Iddirs* share a communal land, they organize works and bylaws together.

Communal nurseries are established to propagate diversified seeds and seedlings of grasses, legumes, trees and shrubs. A communal nursery is a plot of land previously owned by the government and whose usufruct has been given to a community. Tree seedlings are mainly transplanted on communal lands. Grass seedlings are used either to transplant on communal land, or are distributed to farmers who wish to have new plantlets. Grass surplus is harvested and sold to other farmers.

In communal lands, physical and biological works are undertaken according to Iddir committees' action plan which is linked to the topography, the slope and the size of the area.



3. From community enquiry to land certification validation

RCBDIA supports Iddirs for the planning process, and provides technical and organizational advice during the entire implementation stage.

1. COMMUNITY REQUEST

An Iddir group who wishes to initiate common works to rehabilitate communal land first has to agree with every member on the different tasks and means they plan to use and accomplish. Once every household has approved works' organization, activities and outlets, they present a request to the DA (Development Agent of the MoA) responsible for the area.



2. IDENTIFICATION OF DEGRADED AREA

The Woreda team makes reconnaissance visits to the concerned communal land and holds talks with DA, Kebele authorities, RCBDIA and the Iddir committee to agree on the location of the site and mark out its boundaries. A GPS is used to precisely identify the limits of the area.

They introduce and explain watershed management principles, what is likely to be done in the selected land, and agree on the next steps.

3. CONFLICT MANAGEMENT

As communal lands have been used by various communities for decades, some disputes can appear between farmers who claim the "ownership" of the area. Disagreements can concern:

- Farmers from the same *Iddir* group who disagree about the boundaries of the communal land which "encroach" on their field
- Farmers from the concerned *Iddir* and neighboring *Iddirs* who don't feel concerned with the project and don't
 agree to be a part of the project.

The identification of communities/ farmers who are at loggerheads with each other is done through the mediation of DAs and the Kebele committee. A decision-making process is undertaken by those stakeholders to resolve and regulate the contentions.

4. VALIDATION OF COMMUNAL LAND REGISTRATION BY THE LAND ADMINISTRATION COMMITTEE

Each *Kebele* has a **rural land registration** on which every land is registered and located. The land administration committee judges the decision and validates or denies the communal land boundaries previously identified on their map.

DA, who act as intermediaries between farmers and *Kebele* and *Woreda* officials, give *Iddir* members the decision of the land administration committee.

4. Establishment of community action plan and bylaws

Farmers have been using communal lands for ages, so they cannot stop exploiting it from one day to another. Limiting access to the area is a long process, which has to be done step by step.

With DA and RCBDIA support, Iddir members establish the planning and the prioritization of innovations to be introduced in the communal land. Rules and bylaws are set up to ease and ensure activities' implementation and sustainability.

NB: A communal land is generally part of one Village Unit, led by one Iddir group. If a communal land is shared between different Iddir groups, all of them must be a part of the decision making.

1. SENSITIZATION SESSIONS: RAISING FARMERS' AWARENESS OF LAND DEGRADATION

Once communal land is recognized by the community and validated by *Kebele* officials, open discussions are organized between DA, Kebele chiefs, and the community.

The goal of this meeting is to raise people's awareness of the current situation of land degradation and make them react about their responsibilities concerning the need of rehabilitation for the coming generation. By assessing communal land conditions themselves, farmers feel more responsible and motivated to improve the situation.

The sensitization session is conducted as an open discussion to trigger a reaction from farmers. It looks at six main subjects: 1) History of the area; 2) The current situation; 3) Causes of such degradation; 4) Solutions to overcome the damages; 5) Main actors involved; 6) Project approach and activities.



2. SOCIAL ORGANIZATION: THE ROLE OF IDDIR LEADERS AND PEER FARMERS

Peer farmers are motivated farmers, recognized by the community for their technical skills and experiences and their pedagogical capacities. As they have earned farmers' trust, they play an important role in communicating with the communities about improved land management and encouraging their participation in activities that affect them. Their collaboration is an efficient way to include the local community in the planning, implementation, monitoring and evaluation of activities.

Peer Educators are elected by the community with the presence of RCBDIA and DA, according to the following criteria:

- live permanently on the farm
- have basic education to be able to write, read, and understand the different formats
- have a certain influence on the community
- have good experience and skills in farming
- volunteer to accomplish their duties.



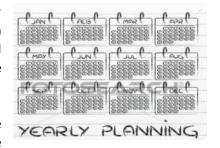
To ease the close follow up of activity planning, implementation and monitoring, the Iddir community is divided into several clusters of 20 to 25 families, covered by one peer farmer. The division depends on the number of households, their affinity with each other, and their geographical proximity to the selected peer farmers.

Peer educators jointly with Iddir leaders are responsible for:

- Following household regular participation through the attendance sheet
- Organizing households to work jointly on common works
- Supervising works' advancement
- Giving advice for communal nursery establishment and follow up
- Estimating the number of structures and levelling bunds according to the slope using the line level method
- Giving advice and supervising the vegetation of the structure
- Participating in a yearly planning organization

3. PARTICIPATORY COMMUNITY ACTION PLAN

The community action plan gives the main objectives and reasons of the community for rehabilitating the communal land. It describes the short term and long term goals, the different steps of activities' implementation, regarding social and technical aspects. Community organization, the mechanical and biological works planned to be achieved, the means and the deadlines are estimated.



Review and approval of the plan: the Iddir committee's proposal is presented to the RCBDIA and DA who make the necessary changes and approve it for submission. The plan is then sent to the Kebele and Woreda officials for final approval.

4. COLLECTIVE RULES ON COMMUNAL LAND REHABILITATION

With their new responsibilities, the Iddir community has to institute new rules and regulations to ensure the successful implementation of agreed activities. RCBDIA provides the Iddir committee with draft rules and bylaws which are already implemented by other communities.

For each non-respected rule, an incremental sanctions' process is applied:

- Warnings, the first 2 or 3 times
- A fine has to be paid by the farmer after 2 to 3 warnings, whose amount varies from one Iddir to another and from one rule to another (in practice, fine payment is rarely applied)
- Failure to abide by commonly agreed terms, especially after several unpaid punishments, can result in social exclusion (in practice, this never happens)



Open grazing restriction

Open grazing is a common uncontrolled practice, conflicting with communal land rehabilitation. Animals impede natural grass regrowth and compete with cultivated grasses and tree seedling development. They can severely damage the mechanical works.

To help restrict open-grazing in their communities, Development Iddirs introduce their own regulations and punishments.

As suggested by William Forster Lloyd "overgrazing could result because for each additional sheep, a herder receives benefits, while the group shares the damage to the commons. If all herders made this individually rational economic decision, the common could be depleted or even destroyed, to the detriment of all." (ref: "The Tragedy of the Unregulated Commons")





Figure 1: Uncontrolled sheep and goats grazing fodder grasses on bunds, resulting in production loss and structure damages

Fines are mainly used to dissuade households from letting their animal wander, but are rarely applied.

This rule goes along with the 2007 Southern Nations, Nationalities and People's Regional State Rural Land Administration and Utilization Proclamation which declares that "In any type of rural land where soil and water conservation works have been undertaken, a system of free grazing shall be prohibited and a system of cut and carry feeding shall be gradually introduced".

Common work participation

One day per week is booked for common works on communal land or communal nursery. Households are generally organized in working teams or sub-teams to undertake the different tasks of rehabilitating the land.

Every household has to participate in common working days to rehabilitate the land according to the annual plan. Iddir leaders are responsible for following up on the attendance sheet, and sanctions are applied when people do not show up on collective working days in the communal land.

Example: Interview with Iddir leader of Bolosso Sore, Dagecho communal land

- * 8 ha of communal land in total
- * The rehabilitation work started on 5 ha.

The first step was to establish common rules.

- Open-grazing restriction:

Each individual who bring his cattle to graze on the communal land has to pay 10 ETB, and 5 ETB for sheep or goat.

- Common works:

Every Saturday, common works are organized to rehabilitate the land: building soil bunds, Fanya juu or stone bridges, digging holes for tree planting, fence maintenance...

A fine of 10 ETB has to be paid for each non-working day.

- Tool management:

180 tools are distributed by the Peer Farmers for maintenance. Each Peer Farmers follows up on tool distribution.

Rules for toolbank management

Basic working tools such as shovels or "3-fingered" hoes are distributed by RCBDIA (initial donation) to the Iddir committee according to the number of households and the length of SWC structure to be built. Iddir leaders or Peer educators control and follow up on the right use of those tools. If a tool is broken, stolen or lost, the user has to replace it and in some cases has to pay a fine to the community.



Uses and sharing of the benefits

The equitable uses and benefits of the resources are clearly formulated and have to be approved by the entire community.

Bundles of grass can be harvested following a cut-and-carry practice, and a price is fixed for each bundle. The main reason to restrict grass harvesting in enclosures is to restore the soil seed bank.

- Natural grass harvesting is conducted once a year, starting 3 to 5 years after enclosure establishment.
- Cultivated grass is harvested 2 to 3 times a year depending on the growth rate.

Once the community has harvested what they need, the excess bundles are sold to neighbouring Iddirs. The money collected from the sale of the communal land resources is kept on the Iddir committee's account.

5. Activities' implementation and follow up

Communal lands have always been exploited by farmers for their individual interests: open-grazing of animals, wood for fuel or construction.

Starting communal land rehabilitation at a small scale allows a smooth integration of new activities' implementation and a closer follow up of the community, with frequent trainings. This reduced area can serve as a demonstration site, to ease the acceptability and understanding among farmers who are not convinced or for surrounding Iddirs.

The setting up of a community action plan on communal land rehabilitation and access limitation is undertaken with a sensitization session and mediation to raise people's willingness to manage common resources together.

Stakeholders at all levels implement the plan. Kebele officials are expected to mobilize resources, and ease RCBDIA intervention. The RCBDIA team organizes technical training and provides a close follow up for the smooth implementation of activities according to the plan. RCBDIA also facilitate the initial access to seeds and also provide tools. *Iddir* members use their indigenous knowledge and know-how to mobilize collective action and ensure equitable responsibility and benefit sharing.

1. EXCLOSURE OF THE LAND

Establishing exclosure areas is considered advantageous since it is an effective method for the rehabilitation of degraded land. Various studies have proven that the establishment of exclosures on degraded communal grazing lands can be effective in improving soil nutrient content and properties. Other studies also indicate that anthropogenic disturbance and livestock grazing have a strong negative effect on species composition, germination, seedling growth, and mortality of many of the plant communities and in turn results in less species richness and poor soil quality in severely overgrazed sites.

The community, with RCBDIA and DA support, delineates the area that will be protected first. The other part of the communal land will remain open, and enclosed progressively depending on works' advancement within the previous enclosure.

Enclosures are usually made with branches and trees (like Euphorbia) around the communal land.

2. COMMUNAL NURSERY

A communal nursery is a plot of land previously owned by the government and whose usufruct has been given to a community. The nursery is usually located in an accessible area, as close as possible to a house and a water point, as frequent maintenance and follow up are needed.

Communal nurseries served to propagate diversified seeds and seedlings of grasses, legumes, trees and shrubs.





Communal nursery in Dagecho, Bolosso Sore

Size: 0.375 ha

Production:

- Tree seedlings for SWC in communal
- Grass seedlings and legumes for both individual and communal lands.

Organization:

A calendar is established by Iddir committee for working days:

The VU is divided into 4 clusters.

4 people of a cluster work together in the communal nursery during 1 day. The day after, 4 people from another cluster are responsible for keeping the nursery. And so on...



Activities in the communal nursery vary according to the season: fence maintenance and rehabilitation, seedling bed fertilization and preparation, watering, transplantation...

One of the main issues is the transport of plantlets from the nursery to the communal land.

Grevillea robusta tree is usually used in agro-forestry systems. It is easily propagated and established and is relatively free of pests and diseases. It is a multipurpose tree that meets various needs: it provides fuel wood, timber and serves to form boundaries. Its leaves provide fodder during severe drought. Simultaneously, it can control raindrop splash, increase organic matter, provide mulching materials to improve ground cover on the farm, reduce wind speed, and encourage nutrient recycling due to its deep rooting. Other trees that are planted are: Acacia saligna, sesbania sesban, leucaena, Cordia africana...

3. PHYSICAL AND BIOLOGICAL WORKS

Communal lands frequently suffer from heavy erosion problems: deep gullies, strong water flows. The first works generally consist in rehabilitating those gullies with gabions (mainly under government campaigns), building check dams and cut off drains around the lands (trench 40cm deep and 1.5m width).

Those major works are prerequisites to ensure the sustainability of further soil and water conservation measures establishment.

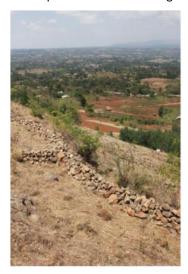




According to the topography, the slope, the type of soil and community wishes, soil bunds, fanya juu, stone ridges or grass strips are constructed. The length and the levelling of those structures are estimated and measured by the Peer Farmers, and validated by the entire community.

Reduction of soil cover (plants, litter and mulch) and of soil organic matter is the starting point in a vicious degradation spiral. As the soil is no longer protected against direct sun exposure, wind and often intense rainfall, water cannot infiltrate the soil. To overcome these major issues, vegetative covers and biomass production have to be set up. Various species of fodder grasses and legumes, trees and shrubs are propagated in communal nurseries and transplanted on structures within exclosures (bracharia, diverse pennisetum, cajanus cajan,...).

The RCBDIA team and the Development Agents of the MoA give technical advice about the type of construction that can be done and the species suited according to farmers purpose.







Common works are organized according to Iddir rules as well as yearly and monthly planning. DA and RCBDIA closely follow the works.

Wednesday morning (1-2 hours of work)

Missing people have to pay 5 ETB to the community

Iddir and Peer Farmers follow an attendance sheet

People are organized between several groups:

- Old people are responsible for fencing,
- Younger for digging holes for tree or for SWC structures,
- Women are responsible for watering, transplanting seedlings of tree or grasses

4. PLANNING FOLLOW UP: WORK ACHIEVEMENT AND REMAINING REHABILITATION WORK

The monthly and yearly planning are established by the Iddir committee and Peer Farmers in consultation with the community and with the support of DA and RCBDIA. They are important tools to ensure the realization of activities, respecting deadlines.

In order to follow up works advancement, a quarterly report is presented to DA, including a description of the physical and biological activities realized, and an evaluation of the results.

Example of a Yearly plan for 2015:

1ha to rehabilitate

- 1500 to 2000 seedlings to produce in the nursery
- 560 m of soil bunds to construct
- 300 m of bunds to plant with Pennisetum Riparium or Elephant grass
- 2 gabions in gullies (during campaign works)
- Maintenance of ancient SWC structures because lots of them have been damaged due to last year heavy rains and water flows.

Quarterly report:

Main task in March:

50 m fencing with branches and Grevillea,

1200 holes dug for tree plantation,

340 m of soil bund and 100 m of stone ridge constructed

5. LAND CERTIFICATION ACQUISITION

Woreda officers organize regular visits to evaluate the motivation of the community and inspect work progress. The achievement of visible land rehabilitation works is a prerequisite for the Woreda council office and the department of land administration to provide the land certification.

Land certification acquisition process is facilitated by DA. However, it generally takes 1 year to get it after community involvement in communal land rehabilitation. The communal land ownership certification is then granted to the Iddir community.

6. Elements for successful and sustainable communal land rehabilitation activities and limits

The approach for communal land rehabilitation initiated by RCBDIA highlights that focusing only on technical aspects cannot bring sustainable changes. It is fundamental to deeply address social issues such as community ownership, institution intervention and raise the benefits for every stakeholder of such an activity.

1. AN INNOVATIVE APPROACH BASED ON 4 MAIN FACTORS

- a. <u>The integration of land certification</u>: land certification for the community helps motivate farmers to take part in communal land rehabilitation and sustain the implementation and ownership of activities.
- b. The establishment of a communal nursery: the issue of getting vegetative material such as fodder seedlings or tree cuttings for large areas such as communal land represents a major bottleneck for organizations and institutions. Involving farmers in the production and propagation of seedlings in a communal nursery wipes off the constraint of supply, and gives households the autonomy to control the multiplication and transplantation of varieties that interest them with reduced inputs. The difficulty for farmers to recover planting material on large communal lands when affected by drought or after heavy rains can be better overcome.
- c. Community-based rules for activity implementation and strong empowerment: the involvement of Iddir members in the planning, decision making, selection of technologies, and the major role of Peer farmers and the Iddir committee in the follow up of weekly activities and estimation of yearly achievement create a real dynamic for communal land rehabilitation. The critical issue of animal open-grazing control is more efficiently addressed. Farmers also organize the works according to community habits and know-how, which lead to a stronger appropriation of activities.

d. Uses of communal land outputs:

High quality forage available for all, locally. The natural regeneration of the vegetation within enclosure supported by planting of nitrogen-fixing/multi-purpose shrubs and trees as well as local grass species enable a gradual improvement of fodder availability of high quality and locally produced.

- Without animal interference, pasture can develop in an optimal way.
- Moreover, the cultivated grasses such as Pennisetum riparium, Bracharia, Elephant grass or Bana grass are highly productive, including in dry season when fodder is scarce.
- Since harvests are controlled (using a cut-and-carry practice) and farmers pay for the bundles they have collected, resources are not overexploited.
- The impact on animal feeding, health and by-products are clear advantages.
- The link with soil and water conservation (consolidation and durability of the anti-erosive structures, reduction of run-offs, moisture conservation...) is another relative advantage when compared to the more conventional models, which usually do not consider the integration of fodder production as an option to better conserve soil fertility.

Benefits for common purpose. The money generated by the sale of natural grass or cultivated fodder from communal land and nursery is kept in a common bank account, together with the money from punishments. During one of its monthly meeting, the Iddir committee organizes a session with the community to decide how the money should be managed and spent. Various ideas are suggested and discussed by the members, and farmers vote for their favorite one. On a longer term, the developed trees can bring additional resources for timber or fire wood, to the benefice of the community.

2. DIFFICULTIES AND LIMITS OF LAND REHABILITATION

However, a host of socio-economic, institutional and political parameters constrain the choices of land management and can result in mismanagement of the land.

Procurement of communal land certification: since the communal land certificate has not been transferred to the community, *Kebele* officials are the owners of the place. Commonly, *Kebele* officials use parts of the communal land to get an income from the sale of natural grasses or trees. Consequently, some *Kebeles* are reluctant to take part in this type of collaboration on land rehabilitation as officials do not get any benefits from the exploitation of the land once it is managed by the community.

Difficulties for rules and norms consideration: during the first 2 to 3 years of communal land rehabilitation projects, various conflicts occur with farmers from neighbouring communities who don't feel concerned by the works, rules or punishments and who don't respect open grazing restrictions. In that case, farmers have to refer to the Kebele officials, who will settle the problem with the other Kebele leaders. Norms and rules remain informal and not legally binding. As they are locally established, their practical application is reserved to the concerned Iddir community. Thus, they can hardly apply to free riders coming from outside the community.

- → It is fundamental to sensitize the other neighboring Kebeles and communities (through other Iddir leaders) when activities are undertaken to avoid any trouble.
- → Another solution could be to devise mechanisms to provide legal recognition of such commonly agreed rules and regulations at the Kebele level.

Development Agent of the Ministry of Agriculture turn-over: several Iddir committee members and DA have been disappointed about the DA turn over. They initiate good cooperation with motivated DA, gain each other's confidence, but suddenly the DA are transferred to other Kebeles by the decision of the Woreda. In Damot Sore Woreda, it is the second time in 2 years that a new DA has come, and each time, they have to build their confidence and collaboration again. This frequent turn-over slows down the rehabilitation process and decreases community motivation to undertake activities. A better knowledge of this mechanism at higher level appears therefore essential to ensure the continuity of the rehabilitation work.



RCBDIA is now trying to develop a kind of model for the rehabilitation of these degraded communal lands in order to build references that could serve to addess these many unproductive lands, victims of the "tragedy of the commons". Obtaining a certificate for traditional Iddirs groups, which is delivered by local authorities, is a key element that encourages families to work hard to restore these lands. Here below, the communal land of Dagecho, with 4 years separating the photo on the left and those on the right (the trees have grown). The following page shows some early developments in extremely degraded lands of the Damot Sore district, with the Acacia saligna species, pine, and leucaena being prepared in a communal nursery.



