



A farmer transporting hay to Tera weekly market (©FAO/Giulio Napolitano)

## Community participation in large-scale land restoration for Africa's Great Green Wall programme (Нигер)

### ТОДОРХОЙЛОЛТ

The Food and Agriculture Organization of the United Nations (FAO) has been using a participatory approach to implement large-scale restoration of degraded land in the Sahel. Communities have been central to the programme. In the framework of the Great Green Wall initiative, adapted and useful native tree species, shrubs, and fodder grasses are planted in agro-sylvo-pastoral land. This is response to community needs and preferences while ensuring that the species and varieties are all ecologically suitable.

The approach is implemented under FAO's Action against Desertification (AAD) programme in the Great Green Wall for the Sahara and the Sahel Initiative (GGWSSI). This is Africa's flagship initiative to combat the effects of climate change and desertification, and to address food insecurity and poverty. It brings together more than 20 African countries with international agencies, research institutes, civil society and grassroots organizations. Through the GGWSSI, the vision is a mosaic of sustainable land use practices and productive landscapes stretching across North Africa, the Sahel and the Horn.

Community participation in the Great Green Wall restoration initiative is through a people-centred approach to rangeland management that puts communities at the heart of efforts. It focusses on plant species that support their livelihoods. Specifically these are a selection of well-adapted indigenous trees, shrubs and fodder grasses with proven resilience to drought and usefulness in restoration. Village communities decide on which areas to plant and on the species that they can utilise for food, for fodder, and for medicines. There are also plants that produce economically valuable goods for local, national and even international markets, such as gum arabic (from *Acacia senegal*) for example.

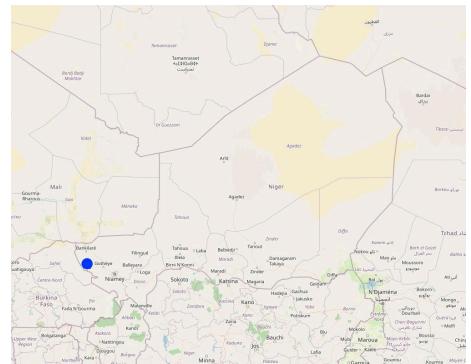
Technically, AAD supports the implementation of land restoration activities through provision of equipment, and by strengthening the technical and functional capacities of individuals, communities, and organizations in restoration techniques and sustainable land management. The three main objectives of this approach are:

- Poverty alleviation;
- Ending hunger; and
- Improving resilience to climate change.

The restoration approach is based on a five-step model:

- Communities: needs and requirements for restoration are determined through in-depth consultations with communities.
- Research: good quality seed is made available for the propagation of economically viable, locally adapted and biodiverse vegetation.
- Operational procedure: efficient operational restoration processes are ensured, including land preparation and management, assisted natural regeneration and planting.
- Monitoring: field performance of species are evaluated, as well as communal activities such as maintenance and management of restored areas.

### БАЙРШИЛ



**Байршил:** In Niger, the GGWSSI covers all the eight regions of the country. Currently FAO's Action Against Desertification project works in the three regions of Tillabery, Dosso and Tahoua, though the approach is expanding to the remaining five regions., Tillabery, Dosso and Tahoua, Нигер

### Сонгосон байршуудын газарзүйн холболт

- 0.7552, 14.00527

**Эхлэх огноо:** 2013

**Төгсөх жил:** тодорхойгүй

### Арга барилын төрөл

- ☐ уламжлалт / уугуул
- ☐ Сүүлийн үеийн орон нутгийн санаачлага / шинэчлэл
- ☒ төсөл / хөтөлбөр дээр үндэслэсэн



- Capacity development: village technicians' capacities are upgraded in forest seed collecting and nursery techniques, planting, maintenance and management of restored areas, and development of plant products, marketing, and local business management.



A woman sows a "half-moon" after its construction in Tera, Niger.  
(©FAO/Giulio Napolitano)



Farmers harvesting hay in Tera, Douma, Niger (©FAO/Giulio Napolitano)

## АРГА БАРИЛЫН ЗОРИЛГО БА ЭЭРЭГ НӨЛӨӨ

### Арга барилын үндсэн зорилго, зорилт

Key elements and aims of this approach include:

- Planting the right species in the right place.
- Promoting the use of quality native forest and fodder seeds for restoration.
- Ensuring that a wide range of useful plant species is made available.
- Managing natural regeneration of species and planted areas through village management committees.
- Updating a species database for gene-pool traceability, monitoring, reporting and for future uses of data and information.

### Тухайн Арга барилын хүрээнд нэвтрүүлсэн Технологийг хэрэгжүүлэхэд дэмжлэг болох нөхцлүүд

- **Нийгэм / соёл / шашны хэм хэмжээ, үнэт зүйлс:** The approach is people-centred, and builds on traditional management of land, traditional ecological knowledge and techniques such as "half-moons" (demi-lunes in French) for rainwater harvesting that facilitate improved plant establishment.
- **Санхүүгийн нөөц, үйлчилгээний хүртээмж / боломж:** Individuals can acquire finance to buy seeds. On community land, finance may be needed to lease land for production of plant varieties, or for hiring labour to take care of seedlings.
- **Бүтэц зохион байгуулалт:** Better organization at local level enhances community participation and commitment to achieve interventions at large-scale/community level.
- **Талуудыг хамтын ажиллагаа/зохицуулалт:** There are various levels of collaboration needed for example in establishing which land should/ can be used, in seed selection based on defined needs, and also for the provision of labor. Fundamentally, collaboration is key to agreements to achieve the desired objectives.
- **Хууль, эрхзүйн хүрээ (газар эзэмшил, газар, ус ашиглах эрх):** Securing access rights to land and water resources is a motivation for investing in reforestation.
- **Бодлогууд:** National level policies can protect and ensure supply of seeds as well facilitate access to natural resources such as land. Additionally, policies such as those in support of Great Green Wall activities create an enabling environment within which these activities can be supported.
- **Газрын засаглал (шийдвэр гаргах, хэрэгжүүлэх, шаардлага):** Similar to legal framework above.
- **ГТМ-ийн талаарх мэдлэг, техникийн дэмжлэг авах боломж:** Knowledge around SLM contributes to maintenance and management of restored areas, thus ensuring sustainability of activities. The programme has integrated existing/traditional SLM activities such as zaï (wide planting pits)/half-moons in capturing, concentrating and storing water thus keeping soils moist and improving the chances of good plant growth in a very dry environment.
- **Зах зээл (материал худалдан авах, бүтээгдэхүүн борлуулах), үнэ:** Market access and increasing economic capacities of communities can enable active involvement in restoration especially when plant products can earn income thus facilitating local business.
- **Ажлын багтаамж, хүн хүчний нөөц бололцоо:** Availability of labor facilitates activities such as forest seed collecting, nursery activities, planting, maintenance and management of restored areas. Most of the work is done by women who prepare the land and take the lead in planting.

Тухайн Арга барилын хүрээнд нэвтрүүлсэн Технологийг хэрэгжүүлэхэд хүндрэл учруулах нөхцлүүд

## ТАЛУУДЫН ОРОЛЦОО БА ҮҮРЭГ

Арга барилд оролцогч талууд болон тэдгээрийн үүрэг

Ямар оролцогч талууд / хэрэгжүүлэгч байгууллагууд арга барилд оролцож байсан бэ?	Оролцогч талуудыг тодорхойлно уу	Оролцогч талуудын үүргийг тайлбарлана уу
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Орон нутгийн газар ашиглагч / орон нутгийн иргэд	Total project beneficiaries are currently 116,000 people (over half are women) Age varies from 15 to 70 years. Participants are villagers including farmers, herders, traditional healers and herbalists. Each intervention village has a village management committee set up for GGW implementation. They contribute land and labour, and village technicians are trained in large-scale degraded land restoration techniques so that they can be self-sufficient at the end of the funding.	1. Defining needs, preferences of species and objectives for land restoration in degraded areas. 2. Trained in the collection of seeds and in how to produce seedlings in village nurseries. 3.The communities involved also participated in the regular monitoring and evaluation of plots. 4. Participating in workshops including agreeing on work plans 5. Communities were also a source of rich traditional ecological knowledge 6. Supporting projects through in-kind contributions of labour and land 7. Representation in the steering committee
олон нийтэд түшиглэсэн байгууллагууд	Each intervention village has a village management committee set up for GGWSSI activities.	- Contributed land, labor and village technicians to be trained in large-scale land restoration techniques geared to self-sufficiency at the end of project life. Managing intervention sites including products such as fodder. Collaborating with national and local administrations.
ГТМ-ийн мэргэжилтэн/ хөдөө аж ахуйн зөвлөх	Support in identification of land needed for restoration, seeds, and management of restoration.	
Судлаачид	National seed centres.	1. Address the availability of good quality seeds for collection. 2. Ensure genetic diversity reflecting varieties of native species.
ТББ	Local NGOs and CBOs.	Local NGO's were trained in land restoration activities. NGOs were also instrumental in discussions on scaling up the approaches and policy support for mainstreaming sustainable land management.
Хувийн хэвшил	Supplies of equipment and materials needed for restoration activities.	Mainly business related to procurement of goods and services.
Орон нутгийн захиргаа	Local administration and national governments in the respective countries.	1. Provide technical management and management of the operational team. 2. Mobilization of communities. 3. Part of the steering committee.
Засгийн газар (шийдвэр гаргагч, төлөвлөгч)	1. Ministry of Environment and Sustainable Development. 2. National Agency of the Great Green Wall. 3. National Forestry Seed Centre. 4. Local authorities (i.e.Town halls/ Mairies in French) involved in Tillabery, Dosso and Tahoua regions.	
Олон улсын байгууллага	Royal Botanical Garden, Kew.	Technical support; botanical knowledge and information resources, and identifying priority species for the Great Green Wall.

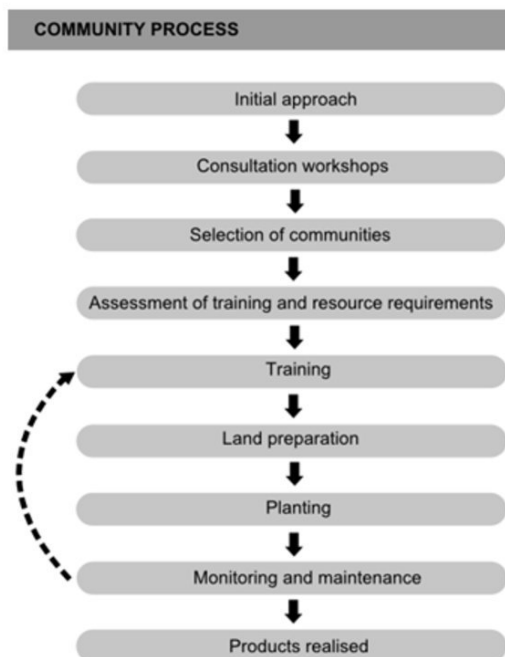
## Арга барилын янз бүрийн үе шатанд орон нутгийн газар ашиглагчид / бүлгүүдийг татан оролцуулах

	үгүй идэвхгүй Гадаад дэмжлэг интерактив өөрийн хүчийг нэгтгэсэн
санаачлага/идэвхжүүлэлт	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Төлөвлөгөө	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Хэрэгжилт	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Мониторинг/ үнэлгээ	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

Communities' local knowledge, needs and aspirations were the backbone of the project. Communities were extensively consulted on species identification and prioritization based on needs, including speed of production, personal knowledge and aspirations. This was through questionnaires and village workshops. Commitment and buy-in from the community was also a prerequisite for activities to start, as they had to commit to contribute land and in-kind labour. Selection of villages for restoration was based on, amongst other things, motivation and commitment by communities to participate in restoration activities, and community-based structures and organizations. Extensive planning was done with communities before implementation, e.g. to agree on planting times, use of traditional techniques and land preparation. Implementation was done actively with communities who volunteered traditional knowledge as well as labour to the activities. This built on the initial procedures where species were selected and prioritized; planning of activities; and later labour in preparation of land, setting-up nurseries and transplanting. Monitoring and field data collection of survival and growth of seedlings were carried out by trained village technicians in collaboration with the communities and technical institutions.

## Арга барил хэрэгжүүлэх бүдүүвч

Community process.



Зохиогч: AAD Project

## ГТМ-ийн технологи сонгох шийдвэр гаргах явц

Шийдвэр гаргасан этгээд

- ☐ Газар ашиглагч дангаараа (өөрийн санаачлага)
- ☐ ГТМ-ийн мэргэжилтнүүдийн дэмжлэгтэйгээр, голчлон газар ашиглагчид
- ☒ оролцооны зарчмын хэсэг болох бүх холбогдох талууд голдуу ГТМ-ийн мэргэжилтнүүд, газар ашиглагчидтай зөвлөлдсөний үндсэн дээр
- ☐ ГТМ-ийн мэргэжилтэн дангаараа
- ☐ улс төрчид / удирдагчид

Шийдвэр гаргах үндэслэл нь

- ☒ ГТМ-ийн мэдлэгийг баримтжуулалтын үнэлгээ (нотолгоонд суурилсан шийдвэр гаргах)
- ☒ Судалгааны үр дүн, ололтууд
- ☒ Хувь хүний туршлага ба санал бодол (баримтжуулаагүй)

## ТЕХНИКИЙН ТУСЛАЛЦАА, ЧАДАВХИ БИЙ БОЛГОХ БОЛОН МЭДЛЭГИЙН МЕНЕЖМЕНТ

Дараах үйл ажиллагаа эсвэл үйлчилгээ нь арга барилын нэг хэсэг болсон

- ☒ Чадавхи бэхжүүлэх/сургалт
- ☒ Зөвлөх үйлчилгээ
- ☒ Институцийг бэхжүүлэх (байгууллагын хөгжил)



- ✓ Мониторинг ба үнэлгээ
- ✓ Судалгаа

## Чадавхи бэхжүүлэх / сургалт

### Дараах сонирхогч талуудад сургалт хийсэн

- ✓ Газар ашиглагчид
- ✓ хээрийн ажилтан / зөвлөх

### Сургалтын хэлбэр

- ✓ Ажил дээр
- ✓ фермерээс -фермер
- ✓ үзүүлэнгийн талбай
- ✓ Олон нийтийн уулзалт
- ✓ курс дамжаа

### Хамарсан сэдэв

Technical training was provided to villages through formal modules in how to collect quality seeds in defined seed zones. The training was provided by the national forest seed centres. The training was in seedling production and participatory forest management. Other areas covered included; added-value and the development of plant products (non-timber forest products), marketing and local business management to support income generation.

## Зөвлөх үйлчилгээ

### Зөвлөх үйлчилгээ үзүүлсэн

- ✓ Газар ашиглагчийн талбай дээр
- ✓ Тогтмол төвд
- ✓ workshops

To re-introduce plants for large-scale restoration, effective use of seeds of wild species demands sufficient biological and technical knowledge about a large number of species to allow for collection, storage and germination of seeds and establishment of seedlings. In this approach therefore, use was made of the technical know-how of RBG Kew and their partnership with forest seed centres that guided collection of quality seeds.

## Институцийг бэхжүүлэх

### Институци бэхжисэн / бий болсон

- ✓ Үгүй
- ✓ Тийм, бага
- ✓ Тийм, дунд зэрэг
- ✓ Тийм, маш их

### дараах түвшинд

- ✓ Орон нутгийн
- ✓ Бүс нутгийн
- ✓ Үндэсний

### Байгууллага, үүрэг, хариуцлага, гишүүд зэргийг тодорхойлно уу.

Institutions: National government; NGOs, CBOs. Support to the national government which is the national agency for the GGW is the entry point. Through them and based on national objectives, the project progresses to a decentralized level. At the national level, capacities have been improved on monitoring and evaluation techniques; seed identification and selection and handling. Local level: these are the implementing partners and work on the ground. Their capacities have been improved on seed selection and restoration techniques, and on data collection. Regional level: more collaboration, coordination and knowledge sharing on the GGW initiatives as well as peer-to-peer learning.

## Дэмжлэгийн төрөл

- ✓ Санхүүгийн
- ✓ чадавхи бэхжүүлэх / сургалт
- ✓ Тоног төхөөрөмж

### Дэлгэрэнгүй мэдээлэл

Equipment: mainly for land preparation for planting and non-timber forest product processing.

## Мониторинг ба үнэлгээ

Regular monitoring is carried out by village communities involved in the restoration exercise. The activities include assessing seedling survival and growth, and the area planted.

## Судалгаа

Судалгаа нь дараах сэдвийг хамарсан

- ✓ Социологи
- ✓ Эдийн засаг/ зах зээл
- ✓ Экологи
- ✓ Технологи

Through a questionnaire, communities define their needs and preferences for species, and the objectives of land restoration in their selected agro-sylvo-pastoral degraded lands. Results of this consultation are fed back to them after analyses by the project team (researchers, plant experts, seed centres) for the feasibility, suitability and availability of the requested species. This creates common agreement on interventions, priorities and implementation plans, with roles and responsibilities from the communities as well as from the technical teams.

1. Sociology: prior research was done on social diversity of village communities in areas such as gender, age, and professions to decide on village selection, but also to ensure balance.

2. Economics/marketing: this was multi-faceted - on the one hand looking at community economic needs and priorities, but also on how to add value to non-timber forest products. The plant-use data received from respondents were classified according to the Economic Botany Data Collection. These helped in deciding and prioritizing species according to community needs.

3. Ecology: the GGW initiative is typically aimed at drylands with challenges of aridity. Thus the ecology was studied to identify suitable plant species that would thrive under these conditions - in combination with traditional SLM/ water harvesting technologies that have been developed to overcome moisture deficits.

The selected species was further examined in laboratories to check their suitability for dryland environments and thereafter to ensure good quality and genetically diverse seeds are used.

## САНХҮҮЖИЛТ БОЛОН ХӨНДЛӨНГИЙН МАТЕРИАЛЛАГ ДЭМЖЛЭГ

### ГТМ-ийн бүрэлдэхүүн хэсгийн жилийн төсөв ам.доллараар

- ✓ < 2,000
- ✓ 2,000-10,000
- ✓ 10,000-100,000
- ✓ 100,000-1,000,000

Action Against Desertification is implemented by FAO and partners with funding from the European Union in the framework of the

### Газар ашиглагч нарт дараах урамшуулал, үйлчилгээг үзүүлсэн

- ✓ Газар ашиглагчдад санхүүгийн / материаллаг дэмжлэг үзүүлсэн
- ✓ Тодорхой хөрөнгө оруулалтанд нөхөн олговор олгох
- ✓ Кредит

<div> <div></div> <div>&gt; 1,000,000</div> </div> <div>Precise annual budget: тодорхойгүй</div>	<div> <div></div> <div>10th European Development Fund (EDF). The GGWI under AAD in Niger is funded up to around 1.5m USD for the four years of the project.</div> </div>	<div> <div></div> <div>Бусад урамшуулал, хэрэгсэл</div> </div>
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<b>Газар ашиглагчдад санхүүгийн болон материаллаг дэмжлэг үзүүлэх</b> Finances are needed for purchasing equipment; seeds were also provided; seed testing was carried out to establish appropriate type/species of those chosen by the communities.			<div> <div></div> <div>Хэсэглэн санхүүждэг</div> </div> <div> <div></div> <div>Бүрэн санхүүждэг</div> </div>
Ажил хөдөлмөр Local communities shared some tasks such as during planting period the project provided lunch.			<div> <div></div> <div></div> </div>
Тоног төхөөрөмж: машин төхөөрөмж Provided such as hand tools, and carts for transportation.			<div> <div></div> <div></div> </div>
Тоног төхөөрөмж: машин төхөөрөмж: Багажууд Tools for SLM/WH structures and planting.			<div> <div></div> <div></div> </div>
Хөдөө аж ахуй: Үр, үрсэлгээ Training was provided in a collection of native forest seeds that were then bought from them (communities thus earning an income).			<div> <div></div> <div></div> </div>
Барилга байгууламж: Чулуу For storage facilities.			<div> <div></div> <div></div> </div>
Газар ашиглагчаас гаргасан хөдөлмөр хүчний зардал <div> <div></div> <div>сайн дурын</div> </div> <div> <div></div> <div>хоол хүнсээр ажилладаг</div> </div> <div> <div></div> <div>бэлэн мөнгөөр төлдөг</div> </div> <div> <div></div> <div>бусад материаллаг дэмжлэгээр шагнагдсан</div> </div>			

<b>Бусад урамшуулал, хэрэгсэл</b> Functional capacity building village communities for example in management of restoration sites and development of forest products
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НӨЛӨӨЛЛИЙН ДҮН ШИНЖИЛГЭЭ БА ДҮГНЭЛТ				
Арга барилын үр нөлөө				
				Үгүй Тийм, бага зэрэг Тийм, зарим Тийм, их
Арга барил нь орон нутгийн газар ашиглагчдыг чадваржуулах, оролцогч талуудын оролцоог сайжруулсан уу? The project supports communities to improve the productivity of their land in direct consultation with them while benefiting from training on recording changes in the diversity of biomass in community plots and lands.				✓
Арга барил нь нотолгоонд суурилсан шийдвэр гаргах боломж олгосон уу?				✓
Арга барил нь ГТМ-ийн технологийг хэрэгжүүлж, хадгалахад газар ашиглагчдад тусласан уу? Training was provided in various aspects such as seed selection and collection.				✓
Арга барил нь ГТМ-ийн зардал хэмнэсэн хэрэгжилт, зохицуулалтыг сайжруулсан уу? The project is not funding all aspects, though building sustainability through the direct capacity development and participation of communities.				✓
Арга барил нь ГТМ-ийн хэрэгжилтийн санхүүгийн эх үүсвэрийн хүртээмжийг сайжруулах / эргэлтэнд оруулахад чиглэсэн үү? 1. Village technicians have been used by other projects in the area in SLM and also by the government while receiving remuneration. 2. Communities are able to sell indigenous seeds for restoration to other projects in the region, and to the government.			✓	
Арга барил нь ГТМ хэрэгжүүлэхэд газар ашиглагчдын мэдлэг, чадварыг сайжруулахад хүргэсэн үү?				✓
Энэ арга барил бусад сонирхогч талуудын мэдлэг, чадавхийг сайжруулсан уу? 1. Governments; training of technicians in specialized tools, training in monitoring and evaluation of SLM and in restoration impacts. 2. CBOs and local administrations: regional organizations such as CILSS-Agryhmet were also trained in the above.				✓
Арга барил нь оролцогч талуудын хооронд институци, хамтын ажиллагааг бий болгож, бэхжүүлсэн үү? The village technicians and trained seed collectors have now been organized into a regional union for supply of restoration seed.				✓

10/10

10

100%

100%

100%

100%

☒☒

100%

100%

The capacity being developed should help farmers continue without external intervention e.g. training in collecting planting material, planting techniques and in managing the plots enables continuity, and the capacities developed stay within the community – for example: the trained village technicians.

- The consultation process and the mutual trust built over time, which helps people “buy into” the programme and feel ownership of the activities on the ground.
- The technical and scientific feedback answers to priorities and preoccupation of land users in terms of restoration objectives.
- The involvement of people in monitoring and management of their planted sites as they contribute their lands and labour.

Эмхэтгэгч  
Vivian Onyango

Хянан тохиолдуулагчид  
Mouctar Sacande  
Vivian Onyango

Хянагч  
Donia Mühlematter  
Simone Verzandvoort  
Rima Mekdaschi Studer  
Joana Eichenberger

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Сүүлийн шинэчлэл: 21 8-р сар 2024

### Мэдээлэл өгсөн хүн

Vivian Onyango (vivian.onyango@fao.org) - ГТМ мэргэжилтэн  
Mouctar Sacande (mouctar.sacande@fao.org) - ГТМ мэргэжилтэн

### WOCAT мэдээллийн сан дахь бүрэн тодорхойлолт

[https://qcat.wocat.net/mn/wocat/approaches/view/approaches\\_2909/](https://qcat.wocat.net/mn/wocat/approaches/view/approaches_2909/)

### Холбогдох ГТМ мэдээлэл

тодорхойгүй

### Баримтжуулалтыг зохион байгуулсан

Байгууллага

- Food and Agriculture Organization of the United Nations (FAO) - Итали

Төсөл

- Book project: Guidelines to Rangeland Management in Sub-Saharan Africa (Rangeland Management)
- FAO-Action Against Desertification

### Гол сурвалж баримт сэлт

- FAO. 2015. Global guidelines for the restoration of degraded forests and landscapes in drylands: building resilience and benefitting livelihoods. Forestry Paper No. 175. Rome, Food and Agriculture Organization of the United Nations.: UN-FAO
- Community participation at the heart of Africa's Great Green Wall Restoration model. Authors: M. Sacande, N. Berahmouni and S. Hargreaves. In Unasylva. Volume 66 2015/3: UN-FAO

### Холбогдох мэдээллийн интернет холбоос

- Action Against Desertification (FAO): <http://www.fao.org/in-action/action-against-desertification/en/>
- Building Africa's Great Green Wall: Restoring degraded drylands for stronger and more resilient communities: <http://www.fao.org/3/a-i6476e.pdf>
- Forest and Landscape Restoration Approach: <http://www.fao.org/3/a-i5212e.pdf>

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