



WOCAT - World Overview of Conservation Approaches and Technologies

Questionnaire on Sustainable Land Management (SLM) Technologies

Version: Core (2018)

A tool to help document, assess, and disseminate SLM practices

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Introduction to the questionnaire

About the WOCAT documentation of SLM practices

Welcome to WOCAT!

WOCAT provides standardized, user-driven, open-access, globally-used tools and methods for the documentation and assessment of sustainable land management (SLM) practices. **SLM** in the context of WOCAT is defined as the sustainable use of land resources – including soils, water, vegetation, and animals. WOCAT focuses on efforts to prevent and reduce land degradation and restore degraded land through improved **land management technologies** and **approaches to implement these**. All practices may be considered, whether they are indigenous, newly introduced through projects, or recent innovations by land users. All information documented through WOCAT questionnaires is made available in the Global SLM Database and can be used to disseminate SLM knowledge and improve decision-making for further implementation and spreading of SLM practices.

Process of documentation and review of WOCAT data

Are you going to document an SLM Technology or an SLM Approach – or both? And what is the difference between the two?

*An **SLM Technology** is a physical practice that controls land degradation and enhances productivity and/ or other ecosystem services. A Technology consists of one or several measures, such as agronomic, vegetative, structural, and management measures.*
Example:
https://qcat.wocat.net/en/wocat/technologies/view/technologies_3359/

*An **SLM Approach** defines the ways and means used to implement one or several SLM Technologies. It includes technical and material support as well as the involvement and roles of different stakeholders. An Approach can refer to a project/ programme or to activities initiated by land users themselves.* Example:
https://qcat.wocat.net/en/wocat/approaches/view/approaches_3173/

The two questionnaires together provide the full picture of an SLM practice. Ideally, you first fill in the questionnaires on SLM Technologies followed by the questionnaire on SLM Approaches. An Approach should always be linked to one or several Technologies. Optional thematic modules provide in-depth information on specific topics (such as Climate Change Adaptation, Watershed and Runoff, and Mapping Land Degradation and Conservation). See <https://qcat.wocat.net>

How to document and review WOCAT data

- 1) Familiarize yourself with the paper questionnaire (download it at <https://www.wocat.net/en/global-slm-database/slm-practices-technologies-and-approaches>). Go through the questions and read the instructions below. Contact the WOCAT Secretariat if you have questions.
- 2) Start filling in the questionnaire based on your knowledge and existing documents. Please write clearly and legibly.
- 3) Identify land users and other key resource persons with in-depth knowledge of the SLM Technology/ Approach (ideally a team of specialists with different backgrounds and experience).
- 4) Collect data in the field. Gather information through interviews with land user(s) and key resource persons. Take measurements and photos, and make technical drawings.
- 5) Enter the compiled information in the Global SLM Database. Go to <https://qcat.wocat.net> and create a new SLM Technology/ Approach data entry form. Type the data collected – section by section, and upload images and other digital files.
- 6) The Global SLM Database will guide you on how to edit and submit your data for review, making sure it is complete, clear, and comprehensible. You can invite editors (registered WOCAT users) to help you.

Note: fill in a separate questionnaire for each Technology and for each Approach.

Help us to improve WOCAT

Thank you for contributing to the Global SLM Database with good quality data on SLM! WOCAT provides flexible and user-driven tools. Help us to improve the existing questionnaires and contribute to the development of new questionnaire modules on specific topics related to SLM. Send your inputs or feedback to: wocat@cde.unibe.ch

Please read the following notes before filling in the questionnaire:

- It is recommended that the questionnaire be filled in by a **team of SLM specialists – including land users** – with different backgrounds and experience, who are familiar with the details of the SLM Technology (technical, financial, socio-economic).
- **Answer all questions.** If hard or precise data are not available, we ask you to provide a best estimate based on your professional judgement. If certain questions are not applicable or not relevant, indicate “n/a”. Remember that the quality of the results depends entirely on the quality of your answers.
- Questions with the icon  must be answered in consultation with land users. Depending on the Technology, it may be advantageous to answer all questions in consultation with land users.
- Questions with the icon  require measurements or observations in the field.
- Answer options with can only be ticked once.
- Answer options with can be ticked several times, max. options are indicated,
- Instructions, explanations, definitions, and examples are indicated in italics. Use the definitions given in this document, even if they deviate from your own/ national definitions (e.g. land use, slope classes, etc.).
- **Make use of existing documents and seek advice from other SLM specialists and land users as much as possible in order to improve the quality of the data.**
- If you do not have enough space for answers, use the empty pages at the end of the questionnaire for additional information. Please always make proper reference to particular questions and page numbers!
- Attach good technical **drawings, photographs (including descriptions)**, references, etc.
- Please fill in a separate questionnaire for each Approach and each Technology (i.e. one questionnaire per Approach; one questionnaire per Technology). An Approach should be linked with one or several Technologies. Together, the two questionnaires (on SLM Technologies and on SLM Approaches) describe a case study within a selected area.
- The questionnaire was designed to document SLM Technologies. However, it can also be used for any land use management practice which is considered **non-sustainable**. If the objective is to compare situation 1 (before or without SLM measures) with situation 2 (after or with SLM measures), or to assess two different technologies and compare their impacts within the same land use system, fill in two separate questionnaires. Questionnaire 1 has to be filled in completely. In Questionnaire 2, it is sufficient to fill in the answers that differ from those given in Questionnaire 1. Indicate reference/link between questionnaires in question 1.6.
- Fill in the questionnaire **carefully and legibly**.
- Please enter the information in the **WOCAT online database**, see gcat.wocat.net.

Answer all questions. If precise data are not available, we ask you to provide a best estimate based on your professional judgement. If certain questions are not applicable or not relevant, indicate "n/a".

1. General information

1.1 Name of the SLM Technology (hereafter referred to as the Technology)

Name:

Locally used name:

Country:

1.2 Contact details of resource persons and institutions involved in the assessment and documentation of the Technology

Compiler

The person who conducted the interviews, compiled the information, and filled in the questionnaire.

Last name: First name(s): female

male

Name of institution:

.....

.....

Country:

Phone no. 1: Phone no. 2 (mobile)

E-mail 1: E-mail 2:

Key resource person(s)

Person(s) who provided most of the information documented in this questionnaire. These can be land users, SLM specialists (e.g. technical advisers, researchers), or any other persons. Note: Circles indicate a single-select question. Tick only one answer!

Specify the key resource person 1: land user¹ SLM specialist/ technical adviser Co-compiler:

other (specify):

Is the key resource person a registered or a non-registered WOCAT user?

Registered User Non-registered USER

WOCAT recommends that important key resource persons of this dataset should be registered in the WOCAT database/ website. That way they remain contactable for inquiries. Their contact data will only be accessible to registered WOCAT users.

female

male

Last name: First name(s):

Name of institution:

Country:

¹ *Land user: the person/ entity who implements/ maintains the Technology. The term land user may refer to individual small- or large-scale farmers, groups (gender, age, status, interest), cooperatives, industrial companies (e.g. mining), government institutions (e.g. state forest), etc.*

Indicate further resource persons who have provided information on the Technology (if relevant):

Specify the key resource person 2: land user¹ SLM specialist/ technical adviser Co-compiler:
 other (specify):

Is the key resource person a registered or a non-registered WOCAT user?

Registered User Non-registered USER

WOCAT recommends that important key resource persons of this dataset should be registered in the WOCAT database/ website. That way they remain contactable for inquiries. Their contact data will only be accessible to registered WOCAT users.

Last name: First name(s): female
 male

Name of institution:

Country:

Specify the key resource person 3: land user¹ SLM specialist/ technical adviser Co-compiler:
 other (specify):

Is the key resource person a registered or a non-registered WOCAT user?

Registered User Non-registered USER

WOCAT recommends that important key resource persons of this dataset should be registered in the WOCAT database/ website. That way they remain contactable for inquiries. Their contact data will only be accessible to registered WOCAT users.

Last name: First name(s): female
 male

Name of institution:

Country:

Specify the key resource person 4: land user¹ SLM specialist/ technical adviser Co-compiler:
 other (specify):

Is the key resource person a registered or a non-registered WOCAT user?

Registered User Non-registered USER

WOCAT recommends that important key resource persons of this dataset should be registered in the WOCAT database/ website. That way they remain contactable for inquiries. Their contact data will only be accessible to registered WOCAT users.

Last name: First name(s): female
 male

Name of institution:

Country:

Name of the institution(s) which facilitated the documentation/ evaluation of the Technology (if relevant):

Name of project which facilitated the documentation/ evaluation of the Technology (if relevant):

Note: You may upload the logo(s) of your institution/ project to the WOCAT database.

1.3 Conditions regarding the use of data documented through WOCAT

The compiler and key resource person(s) accept the conditions regarding the use of data documented through WOCAT:

- yes no

Note: If you do not accept the conditions regarding the use of data documented through WOCAT, you will not be able to enter and edit data in the WOCAT database.

Conditions regarding the use of data documented through WOCAT

- Data captured through WOCAT questionnaires will be entered, edited, and stored in the WOCAT online database by the compiler or a data entry person assigned by the compiler. Overall responsibility for compilation and data quality lies with the compiler. The compiler, resource persons, and data entry person will be recorded and given credit for the data in the database as well as in any compilation or publication of the documented Technology.
- Data stored in the WOCAT database are open access.
- Data are made available for users under the [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License](https://creativecommons.org/licenses/by-nc-sa/3.0/).

You are free to:

- **Share** — copy and redistribute the material in any medium or format
- **Adapt** — remix, transform, and build upon the material

The licensor cannot revoke these freedoms as long as you follow the following license terms:

- **Attribution** — You must give appropriate credit, provide a link to the license, and indicate if changes were made.
- **Non-commercial** — You may not use the material for commercial purposes.
- **ShareAlike** — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.
- **No additional restrictions** — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Full license terms: <http://creativecommons.org/licenses/by-nc-sa/3.0/legalcode>

1.4 Declaration on sustainability of the described Technology

Note that WOCAT questionnaires focus on the documentation and assessment of SLM practices. However, this questionnaire can also be used to describe a non-sustainable land management practice if you wish to compare this practice with specific SLM Technologies. In this case, indicate reference to those SLM Technologies in question 1.6.

Is the Technology described here problematic with regard to land degradation, so that it cannot be declared a *sustainable* land management technology?

- Yes No

Comments:

1.5 Reference to Questionnaire(s) on SLM Approaches

To understand properly the implementation of the Technology, the associated SLM Approach must be described. Name the corresponding Approach and its compiler below, and make sure that a link is created in the database.

Name of SLM Approach:

Compiler:

.....

2.4 Videos of the Technology

If video files presenting the Technology are available, upload them to a public platform (e.g. vimeo.com, youtube.com) and indicate a link and a short description for each file in the table below.

Link	Comments, short description	Date	Location	Name of videographer

2.5 Country/ region/ locations where the Technology has been applied and which are covered by this assessment

The described Technology might be applied in various sites. However, restrict information given in this questionnaire to only those sites that have been assessed/ analysed in the documentation process (through field visits, interviews with respective land users, reports, etc.). Do not include other sites where the same Technology is applied but no data have been collected.

Country: Region/ State/ Province:

Further specification of location (e.g. municipality, town, etc.), if relevant::

Number of sites considered/ analysed in the documentation of this Technology:

single site 2-10 sites 10-100 sites 100-1,000 sites > 1,000 sites

Site: A site can be a single plot or a larger area managed by individuals or a community, or a place where specific infrastructure has been implemented (e.g. dam).

Note: Circles indicate a single-select question. Tick only one answer!

Specify the spread of the Technology:

evenly spread over an area (e.g. mulching, series of terraces, afforestation, micro-catchments) applied at specific points/ concentrated on a small area (e.g. national reserve, national park)

If the Technology is evenly spread over an area, specify area covered (in km²):

.....

Is/are the technology site(s) located in a permanently protected area?

Yes No

Geo-referenced information (coordinates) of the sites where the Technology was documented (reference sites):

Add a point for each technology site that was considered/ analysed in the documentation of this technology. If more than 10 sites were considered, select and add a point for those that are most representative.

The coordinates must be in decimal degrees of format "Latitude, Longitude", eg. 46.9526, 7.4352

Use the following link to convert from degrees, minutes and seconds to decimal degrees: <http://www.latlong.net>

Name of location, name of land user, etc.	Latitude	Longitude

Comments:

.....

2.6 Date of implementation

Indicate year of implementation:

If precise year is not known, indicate approximate date:

- less than 10 years ago (recently)
- 10-50 years ago
- more than 50 years ago (traditional)



2.7 Introduction of the Technology

Several answers possible.

Specify how the Technology was introduced:

- through land users' innovation
- as part of a traditional system (> 50 years)
- during experiments/ research
- through projects/ external interventions
- other (specify):

Comments (type of project, etc.)

.....

.....

.....

*The terms **traditional** and **innovation** refer to the land users' own technologies. They cover technologies that have been in use for generations, as well as those developed more recently by innovative land users in response to changing circumstances. Use "other" when the Technology does not fit any of the given categories and specify why it does not fit.*

3. Classification of the SLM Technology

3.1 Main purpose(s) of the Technology



Several answers possible. Tick max. 5 answers.

- improve production (crop, fodder, wood/ fibre, water, energy)
- reduce, prevent, restore land degradation (soil, water, vegetation)
- conserve ecosystem
- protect a watershed/ downstream areas – in combination with other Technologies
- preserve/ improve biodiversity
- reduce risk of disasters (e.g. droughts, floods, landslides)
- adapt to climate change/ extremes and its impacts (e.g. resilience to droughts, storms)
- mitigate climate change and its impacts (e.g. through carbon sequestration)
- create beneficial economic impact (e.g. increase income/ employment opportunities)
- create beneficial social impact (e.g. reduce conflicts on natural resources, support marginalized groups)
- other purpose (specify):



3.2 Current land use type(s) where the Technology is applied

See definitions of land use, land use types, and subcategories below. Use the definitions given in this document, even if they deviate from your own/ national definitions.

Is land use mixed within the same land unit (e.g. agroforestry)?

- Yes No

Select land use type

Select one or more subcategories

Specify major products/ services/ remarks

Usually one, max. two ticks Several answers possible

Only one tick possible

Cropland

- Annual cropping
- Perennial cropping
- Tree and shrub cropping
- other (specify):

Number of growing seasons per year:

- 1
 2
 3

Specify:

Is crop rotation practiced?

- Yes
 No

Is intercropping practiced?

- Yes
 No

Grazing land

Extensive grazing

- Nomadism
- Semi-nomadic pastoralism
- Ranching
- Transhumant pastoralism

Specify animal type:

.....

Intensive grazing

- Cut-and-carry/ zero grazing
- Improved pasture
- Other (specify):

Is integrated crop-livestock management practiced?

- Yes
 No

Specify products and services for grazing land:

.....

Livestock population 1 :

Species:.....

Count:

Livestock population 2 :

Species:.....

Count:

Livestock population 3 :

Species:.....

Count:

Livestock population 4 :

Species:.....

Count:

<input type="checkbox"/> Forest/ woodlands	<input type="checkbox"/> <i>(Semi-)natural forests/ woodlands</i> <input type="checkbox"/> Selective felling <input type="checkbox"/> Clear felling <input type="checkbox"/> Shifting cultivation <input type="checkbox"/> Dead wood/ prunings removal <input type="checkbox"/> Non-wood forest use If ticked, specify type of forest; <input type="checkbox"/> <input type="checkbox"/> <i>Tree plantation, afforestation</i> . <input type="checkbox"/> Monoculture local variety <input type="checkbox"/> Monoculture exotic variety <input type="checkbox"/> Mixed varieties If ticked, specify type of forest; and specify type of tree: If ticked, specify type of forest;	Products and services: <input type="checkbox"/> Timber <input type="checkbox"/> Fuelwood <input type="checkbox"/> Fruits and nuts <input type="checkbox"/> Other forest products (honey, medicinal plants, etc.) <input type="checkbox"/> Grazing/ browsing <input type="checkbox"/> Nature conservation/protection <input type="checkbox"/> Recreation/ tourism <input type="checkbox"/> Protection against natural hazards <input type="checkbox"/> other (specify): Are the trees specified deciduous or evergreen? <input type="radio"/> deciduous <input type="radio"/> mixed deciduous/ evergreen <input type="radio"/> evergreen
--------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<input type="checkbox"/> Settlements, infrastructure	<input type="checkbox"/> Settlements, buildings <input type="checkbox"/> Traffic: roads, railways <input type="checkbox"/> Energy: pipelines, power lines <input type="checkbox"/> other (specify):	Remarks:
------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------

<input type="checkbox"/> Waterways, waterbodies, wetlands	<input type="checkbox"/> Drainage lines, waterways <input type="checkbox"/> Ponds, dams <input type="checkbox"/> Swamps, wetlands..... <input type="checkbox"/> other (specify):	Main products/ services:
-----------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------

<input type="checkbox"/> Mines, extractive industries	Specify:	Main products:.....
-------------------------------------------------------	----------------	---------------------

<input type="checkbox"/> Unproductive land	Specify:	Remarks:
--------------------------------------------	----------------	----------------

<input type="checkbox"/> Other (specify):	Specify:	Remarks:
-------------------------------------------------	----------------	----------------

Comments:

Choose from the land use types and subcategories listed below.

Land use: human activities which are directly related to land, making use of its resources or having an impact on it.

Land cover: vegetation (natural or planted) or man-made structures (buildings, etc.) that cover the earth's surface.

Land use types

Main categories	Subcategories
Cropland: land used for cultivation of crops (field crops, orchards)	<ul style="list-style-type: none"> • Ca: Annual cropping: land under temporary/ annual crops usually harvested within one, maximally two years (e.g. maize, paddy rice, wheat, vegetables, fodder crops). • Cp: Perennial (non-woody) cropping: land under permanent (not woody) crops that may be harvested after 2 or more years, or where only part of the plants are harvested (e.g. sugar cane, banana, sisal, pineapple). • Ct: Tree and shrub cropping: permanent woody plants with crops harvested more than once after planting and usually lasting for more than 5 years (e.g. orchard/ fruit trees, coffee, tea, grapevines, oil palm, cacao, coconut, fodder trees).
Grazing land: land used for animal production	<ul style="list-style-type: none"> • Ge: Extensive grazing land: grazing on natural or semi-natural grasslands, grasslands with trees/ shrubs (savannah vegetation) or open woodlands for livestock and wildlife. Includes the following subcategories: <ul style="list-style-type: none"> • Nomadism: people move with animals. • Semi-nomadic pastoralism: animal owners have a permanent place of residence where supplementary cultivation is practiced. Herds are moved to distant grazing grounds. • Ranching: grazing within well-defined boundaries, movements cover smaller distances and management inputs are higher compared to semi-nomadism. • Transhumant pastoralism: regular movements of herds between fixed areas in order to benefit from the seasonal variability of climates and pastures. • Gi: Intensive grazing/ fodder production: improved or planted pastures for grazing/ production of fodder (for cutting and carrying: hay, leguminous species, silage etc.) not including fodder crops such as maize, cereals. These are classified as annual crops (see above). Intensive grazing can be subclassified into: <ul style="list-style-type: none"> • Cut-and-carry/ zero grazing: carrying fodder to animals confined to a stall/ shed or another restricted area; in zero-grazing systems the livestock are not permitted to graze at any time. • Improved pastures: pasture that is sown with a mixture of introduced grasses and legumes (can be fertilized and/ or inoculated with rhizobia to fix nitrogen).
Forests/ woodlands: land used mainly for wood production, other forest products, recreation, protection.	<ul style="list-style-type: none"> • Fn: Natural or semi-natural: forests mainly composed of indigenous trees, not planted by man. <ul style="list-style-type: none"> • Selective felling. • Clear felling: felling the whole forest at one time. • Shifting cultivation: felling (harvesting) only certain valuable trees within a forest. • Dead wood/ prunings removal (no cutting of trees). • Non-wood forest use (e.g. fruit, nuts, mushrooms, honey, medicinal plants, etc.). • Fp: Plantations, afforestations: forest stands established by planting or/ and seeding in the process. of afforestation or reforestation. <ul style="list-style-type: none"> • Monoculture local variety. • Monoculture exotic variety. • Mixed varieties. • Fo: Other: e.g. selective cutting of natural forests and incorporating planted species.
Settlements, infrastructure	<ul style="list-style-type: none"> • Ss: Settlements, buildings • St: Traffic lines: roads, railways • Se: Energy lines: pipe lines, power lines • So: Other infrastructure
Waterways, waterbodies, wetlands	<ul style="list-style-type: none"> • Wd: Drainage lines waterways • Wp: Ponds, dams • Ws: Swamps, wetlands • Wo: Other waterways
Mines, extractive industries	<ul style="list-style-type: none"> • I: Mines, extractive industries
Unproductive land	<ul style="list-style-type: none"> • U: Wastelands, deserts, glaciers, etc.



3.3 Has land use changed due to the implementation of the Technology?

Has land use changed due to the implementation of the Technology?

- No (Continue with question 3.4)
- Yes (Please fill out the questions below with regard to the land use before implementation of the Technology)

Is land use mixed within the same land unit (e.g. agroforestry)?

A mixture of crops, grazing and trees within the same land unit, e.g. agroforestry, agro-silvopastoralism.

- Yes
- No

Select land use type	Select one or more subcategories	Specify major products/ services/ remarks
<input type="checkbox"/> Usually one, max. two ticks	<input type="checkbox"/> Several answers possible	<input type="radio"/> Only one tick possible

Cropland

- Annual cropping
- Perennial cropping
- Tree and shrub cropping
- other (specify):

Number of growing seasons per year:

- 1
- 2
- 3

Specify:

Is intercropping practiced?

- Yes
- No

Is crop rotation practiced?

- Yes
- No

Grazing land

Extensive grazing

- Nomadism
- Semi-nomadic pastoralism
- Ranching
- Transhumant pastoralism

Intensive grazing

- Cut-and-carry/ zero grazing
- Improved pasture
- Other (specify):

Specify animal type:

.....

Is integrated crop-livestock management practiced?

- Yes
- No

Specify products and services for grazing land:

.....

Livestock population 1 :

Species:.....

Count:

Livestock population 2 :

Species:.....

Count:

Livestock population 3 :

Species:.....

Count:

Livestock population 4 :

Species:.....

Count:

<input type="checkbox"/> Forest/ woodlands	<input type="checkbox"/> <i>(Semi-)natural forests/ woodlands</i> <input type="checkbox"/> Selective felling <input type="checkbox"/> Clear felling <input type="checkbox"/> Shifting cultivation <input type="checkbox"/> Dead wood/ prunings removal <input type="checkbox"/> Non-wood forest use If ticked, specify type of forest; <input type="checkbox"/> <input type="checkbox"/> <i>Tree plantation, afforestation</i> . <input type="checkbox"/> Monoculture local variety <input type="checkbox"/> Monoculture exotic variety <input type="checkbox"/> Mixed varieties If ticked, specify type of forest; and specify type of tree: If ticked, specify type of forest;	Products and services: <input type="checkbox"/> Timber <input type="checkbox"/> Fuelwood <input type="checkbox"/> Fruits and nuts <input type="checkbox"/> Other forest products (honey, medicinal plants, etc.) <input type="checkbox"/> Grazing/ browsing <input type="checkbox"/> Nature conservation/protection <input type="checkbox"/> Recreation/ tourism <input type="checkbox"/> Protection against natural hazards <input type="checkbox"/> other (specify): Are the trees specified deciduous or evergreen? <input type="radio"/> deciduous <input type="radio"/> mixed deciduous/ evergreen <input type="radio"/> evergreen
<input type="checkbox"/> Settlements, infrastructure	<input type="checkbox"/> Settlements, buildings <input type="checkbox"/> Traffic: roads, railways <input type="checkbox"/> Energy: pipelines, power lines <input type="checkbox"/> other (specify):	Remarks:
<input type="checkbox"/> Waterways, waterbodies, wetlands	<input type="checkbox"/> Drainage lines, waterways <input type="checkbox"/> Ponds, dams <input type="checkbox"/> Swamps, wetlands <input type="checkbox"/> other (specify):	Main products/ services:
<input type="checkbox"/> Mines, extractive industries	Specify:	Main products:
<input type="checkbox"/> Unproductive land	Specify:	Remarks:
<input type="checkbox"/> Other (specify):	Specify:	Remarks:

3.4 Water supply

Water supply for the land on which the Technology is applied:

- rainfed
 mixed rainfed–irrigated
 full irrigation
 other (e.g. post-flooding):

Comment:

Rainfed: crop(s) establishment and development is completely determined by rainfall.

Mixed rainfed–irrigated: the application of a limited amount of water to the crop when rainfall fails to provide sufficient water for plant growth, to increase and stabilize yield; the additional water alone is inadequate for crop production.

Full irrigation: any of several means of an artificial regular supply of water, in addition to rain, to the crop(s).

Post-flooding: after rainwater has naturally flooded the field (e.g. in Wadis, riverbanks), the water infiltrated into the soil is used intentionally as a water reserve for crop cultivation. The crop(s) use(s) this water reserve for establishment.

3.5 SLM group to which the Technology belongs

Assign the described Technology to one of the following SLM groups. If this is not possible, select several (max. 3) groups to represent the Technology:

- natural and semi-natural forest management
- forest plantation management
- agroforestry
- windbreak/ shelterbelt
- area closure (stop use, support restoration)
- rotational system (crop rotation, fallows, shifting cultivation)
- pastoralism and grazing land management
- integrated crop–livestock management
- improved ground/ vegetation cover
- minimal soil disturbance
- integrated soil fertility management
- cross-slope measure
- integrated pest and disease management (incl. organic agriculture)
- improved plant varieties/ animal breeds
- water harvesting
- irrigation management (incl. water supply, drainage)
- water diversion and drainage
- surface water management (spring, river, lakes, sea)
- groundwater management
- wetland protection/ management
- waste management/ waste water management
- energy efficiency
- beekeeping, aquaculture, poultry, rabbit farming, silkworm farming, etc.
- home gardens
- ecosystem-based disaster risk reduction
- post-harvest measures
- other (specify):

Natural and semi-natural forest management: encompasses administrative, legal, technical, economic, social, and environmental aspects of the conservation and use of forests.

Forest plantation management: plantation forests comprise even-aged monocultures and are established primarily for wood and fibre production. They are usually intensively managed and have relatively high growth rates and productivity.

Agroforestry: integrates the use of woody perennials with agricultural crops and/ or animals for a variety of benefits and services including better use of soil and water resources; multiple fuel, fodder, and food products; and habitat for associated species.

Windbreak: or shelterbelt is a plantation usually made up of one or more rows of trees or shrubs planted in such a manner as to provide shelter from the wind and to protect soil from erosion. They are commonly planted around the edges of fields on farms.

Area closure (stop use, support restoration): enclosing and protecting an area of degraded land from human use and animal interference, to permit natural rehabilitation, enhanced by additional vegetative and structural conservation measures.

Improved plant varieties/ animal breeds: refers to the development of new plant varieties or animal breeds that offer benefits such as improved production, resistance to pests and diseases, or drought tolerance, in response to changing environmental conditions and land users' needs.

Water harvesting: is the collection and management of floodwater or rainwater runoff to increase water availability for domestic and agricultural use as well as ecosystem sustenance.

Irrigation management (incl. water supply, drainage) aims to achieve higher water use efficiency through more efficient water collection and abstraction, water storage, distribution, and water application.

Water diversion and drainage: is the natural or artificial diversion or removal of surface and sub-surface water from an area

Surface water management (spring, river, lakes, sea): involves the protection of springs, rivers, and lakes from pollution, high water flows(floods), or over-abstraction of water, as well as protection measures against damage

Rotational systems (crop rotation, fallows, shifting cultivation): is the practice of growing a series of dissimilar/ different types of crops/ plants in the same area in sequenced season, letting it fallow for a period of time, shifting cultivation is an agricultural system in which plots of land are cultivated temporarily, then abandoned and allowed to revert to their natural vegetation while the cultivator moves on to another plot.

Pastoralism and grazing land management: is the grazing of animals on natural or semi-natural grassland, grassland with trees, and/ or open woodlands. Animal owners may have a permanent residence while livestock is moved to distant grazing areas, according to the availability of resources

Integrated crop–livestock management: optimizes the uses of crop and livestock resources through interaction and the creation of synergies.

Improved ground/ vegetation cover: any measures that aim to improve the ground cover be it by dead material/ mulch or vegetation

Minimal soil disturbance refers to no-tillage or low soil disturbance only in small strips and/ or shallow depth and direct seeding.

Integrated soil fertility management (ISFM) aims at managing soil by combining different methods of soil fertility amendment together with soil and water conservation. ISFM is based on three principles: maximizing the use of organic sources of fertilizer (e.g. manure and compost application, nitrogen-fixing green manure and cover crops); minimizing the loss of nutrients; and judiciously using inorganic fertilizer according to needs and economic availability.

Cross-slope measures: are constructed on sloping lands in the form of earth or soil bunds, stone lines, or vegetative strips, etc. for reducing runoff velocity and soil erosion.

Integrated pest and disease management (incl. organic agriculture): Integrated pest and disease management is a process to solve pest and disease problems while minimizing risks to people and the environment.

from waterbodies (e.g. river bank erosion, floods, tidal erosion)

Groundwater management: involves securing the recharge of groundwater reserves and their protection from pollution, overexploitation/ overuse, and rising groundwater levels leading to salinization.

Wetland protection/ management: managing wetland typically involves manipulating water levels and vegetation in the wetland, and providing an upland buffer.

Waste management/ waste water management: is a set of activities that include collection, transport, treatment and disposal of waste, prevention of waste production, and modification and reuse/ recycling of waste.

Energy efficiency technologies: reduce the amount of energy required to provide products and services, e.g. for cooking and heating, reducing the demand for fuel (fossil, wood).

Beekeeping, aquaculture, poultry, rabbit farming, silkworm farming, etc.: allow food production and agricultural products requiring small surfaces of the land.

Home gardens (also called backyard or kitchen gardens): are a traditional multifunctional farming system applied on a small area of land around the family home. They have the potential to supply most of the non-staple foods (including vegetables, fruits, herbs, animals and fish). They also provide a space for recreation, leisure, and relaxation.

Ecosystem-based Disaster Risk Reduction: is the sustainable management, conservation, and restoration of ecosystems with the aim of enabling these ecosystems to provide services that mitigate hazards, reduce vulnerability, and increase livelihood resilience.

Post-harvest measures: encompasses activities to deliver a crop from harvest to consumption with minimum loss, maximum efficiency, and maximum return for all involved – such as drying, storage, cooling, cleaning, sorting, and packing.

3.6 SLM measures comprising the Technology

Use the SLM measures and subcategories listed below. Several answers possible.

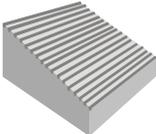
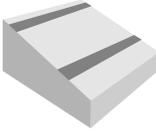
Select SLM measure	Select one or more subcategories/ codes (see definitions below), and fill in the specifications where required
<input type="checkbox"/> agronomic measures ¹	.....
<input type="checkbox"/> vegetative measures	.....
<input type="checkbox"/> structural measures	.....
<input type="checkbox"/> management measures	.....
<input type="checkbox"/> other measures	.....
Comments/ remarks:	
.....	

SLM measures – the constituents of a Technology

SLM measures fall into five categories: agronomic, vegetative, structural, management, and other. Measures are components of Technologies. Each Technology is made up of one or – very commonly – a combination of measures: For

instance, terraces – a typical structural measure – are often combined with other measures, such as grass on the risers for stabilization and fodder (vegetative measure), or contour ploughing (agronomic measure).

¹ *Specifications required: (1) Soil surface treatment: Differentiate tillage systems, and (2) Residue management*

Type of measure	Subcategories	Examples
<p data-bbox="116 170 336 199">Agronomic measures</p>  <ul data-bbox="124 338 496 622" style="list-style-type: none"> • are usually associated with annual crops • are repeated routinely each season or in a rotational sequence • are of short duration and not permanent • do not lead to changes in slope profile • are normally independent of slope 	<p data-bbox="518 170 799 199">A1: Vegetation/ soil cover</p> <p data-bbox="518 226 783 286">A2: Organic matter/ soil fertility</p> <p data-bbox="518 315 783 344">A3: Soil surface treatment</p> <p data-bbox="518 405 783 434">A4: Subsurface treatment</p> <p data-bbox="518 472 783 533">A5: Seed management, improved varieties</p> <p data-bbox="518 539 783 568">A6: Residue management</p> <p data-bbox="518 568 655 598">A7: Others</p>	<p data-bbox="831 170 1358 221"><i>Mixed cropping, intercropping, relay cropping, cover cropping</i></p> <p data-bbox="831 226 1422 309"><i>Conservation agriculture, production and application of compost/ manure, mulching, trash lines, green manure, crop rotations</i></p> <p data-bbox="831 315 1374 405"><i>Zero tillage (no-till), minimum tillage, contour tillage</i> <i>Differentiate tillage systems: No tillage, reduced tillage (>30% soil cover), full tillage (>30% soil cover).</i></p> <p data-bbox="831 405 1358 465"><i>Breaking compacted subsoil (hard pans), deep ripping, double digging</i></p> <p data-bbox="831 472 1358 533"><i>Production of seeds and seedlings, seed selection, seed banks, development/ production of improved varieties</i></p> <p data-bbox="831 539 1406 568"><i>Specification required: burned, grazed, collected, retained.</i></p>
<p data-bbox="116 739 328 768">Vegetative measures</p>  <ul data-bbox="124 920 480 1205" style="list-style-type: none"> • involve the use of perennial grasses, shrubs, or trees • are of long duration • often lead to a change in slope profile • are often aligned along the contour or against the prevailing wind direction • are often spaced according to slope 	<p data-bbox="518 739 783 768">V1: Tree and shrub cover</p> <p data-bbox="518 768 799 828">V2: Grasses and perennial herbaceous plants</p> <p data-bbox="518 828 799 857">V3: Clearing of vegetation</p> <p data-bbox="518 857 799 947">V4: Replacement or removal of alien/ invasive species</p> <p data-bbox="518 947 655 976">V5: Others</p>	<p data-bbox="831 739 1406 768"><i>Agroforestry, windbreaks, afforestation, hedges, live fences</i></p> <p data-bbox="831 768 1358 828"><i>Grass strips along the contour, vegetation strips along riverbanks</i></p> <p data-bbox="831 828 1214 857"><i>Fire breaks, reduced fuel for forest fires</i></p> <p data-bbox="831 857 1198 887"><i>Cutting of undesired trees and bushes</i></p> <p data-bbox="831 947 975 976"><i>Tree nurseries</i></p>
<p data-bbox="116 1238 320 1267">Structural measures</p>  <ul data-bbox="124 1408 496 1877" style="list-style-type: none"> • are of long duration or permanent • often require substantial inputs of labour or money when first installed • involve major earth movements and/ or construction with wood, stone, concrete, etc. are often carried out to control runoff, erosion, and wind velocity, and to harvest rainwater • often lead to a change in slope profile • are often aligned along the contour/ against prevailing wind direction • are often spaced according to slope <p data-bbox="124 1883 480 1960"><i>If structures are stabilized by means of vegetation, also select relevant vegetative measures!</i></p>	<p data-bbox="518 1238 655 1267">S1: Terraces</p> <p data-bbox="518 1301 703 1330">S2: Bunds, banks</p> <p data-bbox="518 1364 783 1424">S3: Graded ditches, channels, waterways</p> <p data-bbox="518 1424 751 1453">S4: Level ditches, pits</p> <p data-bbox="518 1487 767 1516">S5: Dams, pans, ponds</p> <p data-bbox="518 1516 735 1576">S6: Walls, barriers, palisades, fences</p> <p data-bbox="518 1576 751 1666">S7: Water harvesting/ supply/ irrigation equipment</p> <p data-bbox="518 1666 751 1727">S8: Sanitation/ waste water structures</p> <p data-bbox="518 1727 799 1787">S9: Shelters for plants and animals</p> <p data-bbox="518 1787 719 1848">S10: Energy saving measures</p> <p data-bbox="518 1848 655 1877">S11: Others</p>	<p data-bbox="831 1238 1358 1290"><i>Bench terraces (slope of terrace bed <6%); Forward-sloping terraces (slope of terrace bed >6%)</i></p> <p data-bbox="831 1301 1374 1361"><i>Earth bunds, stone bunds (along the contour or graded), semi-circular bunds (“demi-lunes”)</i></p> <p data-bbox="831 1361 1390 1422"><i>Diversion/ drainage ditch, waterways to drain and convey water</i></p> <p data-bbox="831 1422 1342 1482"><i>Retention / infiltration ditches, planting holes, micro-catchments</i></p> <p data-bbox="831 1482 1358 1512"><i>Dams for flood control, dams for irrigation, sand dams</i></p> <p data-bbox="831 1512 1390 1572"><i>Sand dune stabilization, rotational grazing (using fences), area closure, gully plugs (check dams)</i></p> <p data-bbox="831 1572 1390 1601"><i>Rooftop water harvesting, water intakes, pipes, tanks, etc.</i></p> <p data-bbox="831 1666 1422 1695"><i>Compost toilet, septic tanks, constructed treatment wetlands</i></p> <p data-bbox="831 1727 1310 1756"><i>Greenhouses, stables, shelters for plant nurseries</i></p> <p data-bbox="831 1787 1358 1848"><i>Wood-saving stoves, insulation of buildings, renewable energy sources (solar, biogas, wind, hydropower)</i></p> <p data-bbox="831 1848 1342 1908"><i>Compost production pits; reshaping of surface (slope reduction)</i></p>
<p data-bbox="116 1971 344 2000">Management measures</p>	<p data-bbox="518 1971 767 2022">M1: Change of land use type</p>	<p data-bbox="831 1971 1406 2022"><i>Area closure/ resting, protection, change from cropland to grazing land, from forest to agroforestry, afforestation</i></p>

Wo *Offsite degradation effects: deposition of sediments, downstream flooding, siltation of reservoirs and waterways, and pollution of water bodies with eroded sediments*

E: Soil erosion by wind

Et *Loss of topsoil: uniform displacement*
Ed *Deflation and deposition: uneven removal of soil material*
Eo *Offsite degradation effects: covering of the terrain with windborne sand particles from distant sources (“overblowing”)*

C: Chemical soil deterioration

Cn *Fertility decline and reduced soil organic matter content (not caused by erosion): e.g. leaching, soil fertility mining, nutrient oxidation and volatilization (N)*
Ca *Acidification: lowering of the soil pH*
Cp *Soil pollution: contamination of the soil with toxic materials*
Cs *Salinization/ alkalization: a net increase of the salt content of the (top) soil leading to a productivity decline*

P: Physical soil deterioration

Pc *Compaction: deterioration of soil structure by trampling or the weight and/ or frequent use of machinery*
Pk *Slaking and crusting: clogging of pores with fine soil material and development of a thin impervious layer at the soil surface obstructing the infiltration of rainwater*
Pi *Soil sealing: covering of the ground by an impermeable material (e.g. construction, mining, roads, etc.)*
Pw *Waterlogging: effects of human-induced water saturation of soils (excluding paddy fields)*
Ps *Subsidence of organic soils, settling of soil*
Pu *Loss of bio-productive function due to other activities*

B: Biological degradation

Bc *Reduction of vegetation cover: increase of bare/ unprotected soil*
Bh *Loss of habitats: decreasing vegetation diversity (fallow land, mixed systems, field borders), increased fragmentation of habitats*
Bq *Quantity/ biomass decline: reduced vegetative production for different land use*
Bf *Detrimental effects of fires (includes low/ high severity of fires): on forest (e.g. slash and burn), bushland, grazing land, and cropland (burning of residues)*
Bs *Quality and species composition/ diversity decline: loss of natural species, land races, palatable perennial grasses; spreading of invasive, salt-tolerant, unpalatable, species/ weeds*
Bl *Loss of soil life: decline of soil macro-organisms and micro-organisms in quantity and quality*
Bp *Increase of pests/ diseases, loss of predators: reduction of biological control*

H: Water degradation

Ha *Aridification: decrease of average soil moisture content*
Hs *Change in quantity of surface water: change of the flow regime (flood, peak flow, low flow, drying up of rivers and lakes)*
Hg *Change in groundwater/ aquifer level: lowering of groundwater table due to over-exploitation or reduced recharge of groundwater; or increase of groundwater table resulting in waterlogging and/ or salinization*
Hp *Decline of surface water quality: increased sediments and pollutants in fresh water bodies due to point pollution and land-based pollution*
Hq *Decline of groundwater quality: due to pollutants infiltrating into the aquifers*
Hw *Reduction of the buffering capacity of wetland areas to cope with flooding and pollution*

3.8 Prevention, reduction, or restoration of land degradation

Specify the goal of the Technology with regard to land degradation:

(max. 2 ticks)

- prevent land degradation
- reduce land degradation
- restore/ rehabilitate severely degraded land
- adapt to land degradation
- not applicable

Comments/ remarks:

Prevention: good land management practices that are already in place on land that may be prone to land degradation. They maintain natural resources and their environmental and productive functions.

Reduction: interventions intended to reduce ongoing degradation and/ or halt further degradation. They start improving natural resources and their functions. Impacts tend to be noticeable in the short to medium term.

Rehabilitation/ restoration: required when the land is already degraded to such an extent that the original use is no longer possible, and land has become practically unproductive. Here, longer-term and more costly investments are needed to show any impact.

Adaptation: applied when rehabilitation/ restoration of the original state of the land is no longer possible or requires resources beyond the means of land users. This means the state of land degradation is “accepted”, but land management is adapted to suit land degradation (e.g. adapting to soil salinity by introducing salt-tolerant plants).

4. Technical specifications, implementation activities, inputs, and costs

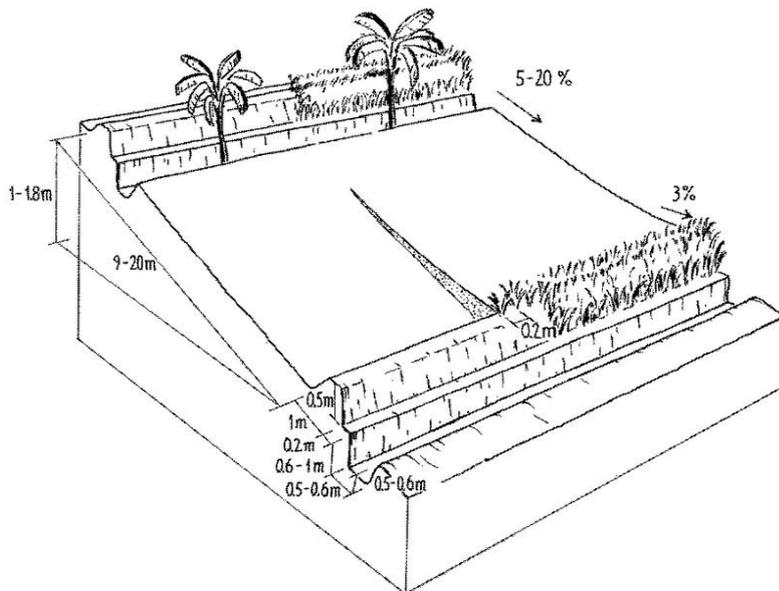
4.1 Technical drawing of the Technology

Please provide a comprehensive and detailed drawing (including dimensions) of the Technology and indicate technical specifications, measurements, spacing, gradient, etc. You can also provide several drawings showing (a) a temporal sequence of operations or (b) different elements or details of the Technology. Alternatively you can also provide one or several photographs with technical specifications drawn and/ or written onto the photograph(s). Include as much technical information as possible on the drawings (or photographs).

Keep the drawing simple and schematic. The technical drawing is crucial for understanding the Technology! Scan the drawing and upload the scan.



Author: Date: .



Example: Technical drawing indicating technical specifications, dimensions, spacing



4.3 Establishment activities

List establishment activities for the Technology (in sequence) and indicate timing

Activity ¹	Timing ²
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Comments:

¹ Type of measure: A = Agronomic; V = Vegetative; S = Structural; M = Management; O = Other measures; refer to 3.6

² Timing: time during which activity is carried out, e.g. month or season, or “after harvest of crops”, “before onset of rains”, etc.



4.4 Costs of inputs needed for establishment

Note: Costs and inputs specified below should refer to the Technology area/ Technology unit defined in 4.3 and to the activities listed in 4.4. Use the currency indicated in 4.3. Figures reflect the situation at the time of recording the data.

If possible, break down the costs of establishment according to the following table, specifying inputs and costs per input.

If you are unable to break down the costs, give an estimation of the total costs of establishing the Technology:

Input	Specify input ³	Unit ⁴	Quantity	Costs per unit (specified currency)	Total costs per input (specified currency)	% of costs borne by land users
Labour						
Equipment						
Plant material						
Fertilizers and biocides						
Construction material						
Others						
Total costs of establishment of the Technology (specified currency)						
Total costs for establishment of the Technology in USD						

³ **Specify inputs:**

- **Labour** includes total person-days, be they paid or unpaid (e.g. contributed by family members). Under “Costs per unit”, indicate daily wage for hired labour. If relevant, differentiate between skilled and unskilled labour.
- **Equipment** includes tools, machine hours, animal traction, etc. Cost calculation for machine hours and animal traction should be based on hiring costs – even if the machinery/ animals are owned by the land user.
- **Plant material** includes seeds, seedling, cuttings, etc.
- **Fertilizers and biocides:** compost/ manure, inorganic fertilizer, herbicides, pesticides, etc.
- **Construction material** includes timber, stones, earth, cement, pipes, tanks, etc.

⁴ **Units:** person-days, kg, litres, pieces, etc.

If land user bore less than 100% of costs, indicate who covered the remaining costs:

Comments:

.....



4.5 Maintenance/ recurrent activities

List maintenance/ recurrent activities for the Technology (in sequence) and indicate timing

<i>Activity</i> ¹	<i>Timing</i> ² / <i>frequency</i> ³
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Comments:

¹ **Type of measure:** A = Agronomic; V = Vegetative; S = Structural; M = Management; O = Other measures; refer to 3.6

² **Timing:** time during which activity is carried out, e.g. month or season, or “after harvest of crops”, “before onset of rains”, etc.

³ **Frequency:** e.g. annually, each cropping season, etc.



4.6 Costs of inputs and recurrent activities needed for maintenance (per year)

Note: Costs and inputs specified below should refer to the Technology area/ Technology unit defined in 4.3 and to the activities listed in 4.6. Use the currency indicated in 4.3.

If possible, break down the costs of maintenance according to the following table, specifying inputs and costs per input.

If you are unable to break down the costs, give an estimation of the total costs of maintaining the Technology:

.....

Input	Specify input ⁴	Unit ⁵	Quantity	Costs per Unit (specified currency)	Total costs per input (specified currency)	% of costs borne by land users
Labour						
Equipment						

Plant material					
Fertilizers and biocides					
Construction material					
Others					

Total costs of maintenance of the Technology (specified currency)

Total costs of maintenance of the Technology in USD

⁴ **Specify inputs:**

- **Labour** includes total person-days, be they paid or unpaid (e.g. contributed by family members). Under “Costs per unit”, indicate daily wage for hired labour. If relevant, differentiate between skilled and unskilled labour.
- **Equipment** includes tools, machine hours, animal traction, etc. Cost calculation for machine hours and animal traction should be based on hiring costs – even if the machinery/ animals are owned by the land user.
- **Plant material** includes seeds, seedling, cuttings, etc.
- **Fertilizers and biocides:** compost/ manure, inorganic fertilizer, herbicides, pesticides, etc.
- **Construction material** includes timber, stones, earth, cement, pipes, tanks, etc.

⁵ **Units:** person-days, kg, litres, pieces, etc.

If land user bore less than 100% of costs, indicate who covered the remaining costs:

Remarks/ comments:

.....



4.7 Most important factors affecting costs

.....

.....

5. Natural and human environment

Give details of the natural (biophysical) conditions where the Technology is applied. Make specific reference to the sites where the documented Technology has been assessed and analysed. Tick one box per question only, except for slope and soil parameters (see indications below). Use comment sections to specify your answers and provide additional information.

Note: Some of the environmental conditions (e.g. slope angle, soil characteristics, water quality/ availability, etc.) may change as a result of the Technology! However, you are requested to **describe the conditions as they were without any impact of sustainable land management!** In exceptional cases, certain questions might not be relevant for the Technology. In such cases, skip the question but use the comment sections to explain why you are skipping it. Use the definitions given in this document, even if they deviate from your own/ national definitions (e.g. slope, soil depth, etc.)

5.1 Climate

Annual rainfall (max. 2 ticks)

- < 250 mm
- 251-500 mm
- 501-750 mm
- 751-1,000 mm
- 1,001-1,500 mm
- 1,501-2,000 mm
- 2,001-3,000 mm
- 3,001-4,000 mm
- > 4,000 mm

Specify average annual rainfall (if known): mm

Specifications/ comments on rainfall distribution, seasonality (e.g. monsoon, winter/ summer rains), number/ length/ months of rainy seasons, occurrence of heavy rains, length of dry periods:

.....

.....

.....

.....

.....

Indicate the name of the reference meteorological station considered:

.....

Agro-climatic zone (max. 2 ticks)

- humid
- sub-humid
- semi-arid
- arid

Specifications/ comments on climate:

.....

.....

Agro-climatic zone

- *Humid: length of growing period (LGP) > 270 days. Length of growing period (LGP) is defined as the period during which precipitation is more than half of the potential evapotranspiration (PET) and the temperature is higher than 6.5° C.*
- *Sub-humid: LGP 180-269 days*
- *Semi-arid: LGP 75-179 days*
- *Arid: LGP < 74 days*



5.2 Topography

Slopes on average (max. 2 ticks)

- flat (0-2%)
- gentle (3-5%)
- moderate (6-10%)
- rolling (11-15%)
- hilly (16-30%)
- steep (31-60%)
- very steep (> 60%)

Landforms (max. 2 ticks)

- plateau/ plains
- ridges
- mountain slopes
- hill slopes
- footslopes
- valley floors

Altitudinal zone (max. 2 ticks)

- < 100 m a.s.l.
- 101-500 m a.s.l.
- 501-1,000 m a.s.l.
- 1,001-1,500 m a.s.l.
- 1,501-2,000 m a.s.l.
- 2,001-2,500 m a.s.l.
- 2,501-3,000 m a.s.l.
- 3,001-4,000 m a.s.l.
- > 4,000 m a.s.l.

Slope gradient conversion table:

Slope in degrees → Slope in percent

Landforms (modified from ISRIC 1993):

- *Plateau/ plains: extended level land (slopes less than 8%).*

- 1° → 2%
- 3° → 5%
- 5° → 8%
- 9° → 16%
- 17° → 30%
- 31° → 60%
- 45° → 100%

- **Ridges:** narrow elongated area rising above the surrounding area, often hilltops or mountaintops.
- **Mountain slopes** (including major escarpments): extended area with altitude differences of more than 600 m per 2 km and slopes greater than 15%
- **Hill slopes** (including valley and minor escarpment slopes): altitude difference of less than 600 m per 2 km and slopes greater than 8%
- **Footslopes:** zone bordering steeper mountain/ hill slopes on one side and valley floors/ plains/ plateaus on the other side
- **Valley floors:** elongated strips of level land (less than 8% slope), flanked by sloping or steep land on both sides

Indicate if the Technology is specifically applied in convex situations
 concave situations
 not relevant

Convex: ridge (diversion of water flow)

Concave: depression (conversion of water flow)

Comments and further specifications on topography (e.g. exact altitude and slope angles of the evaluated sites):

.....

.....



5.3 Soils

(max. 2 ticks per question)

Soil depth on average

- very shallow (0-20 cm)
- shallow (21-50 cm)
- moderately deep (51-80 cm)
- deep (81-120 cm)
- very deep (> 120 cm)

Soil texture (topsoil)

- coarse/ light (sandy)
- medium (loamy, silty)
- fine/ heavy (clay)

Soil texture (> 20 cm below surface)

- coarse/ light (sandy)
- medium (loamy, silty)
- fine/ heavy (clay)

Topsoil organic matter

- high (> 3%)
- medium (1-3%)
- low (< 1%)

If available, attach full soil description or specify the available information, e.g. soil type, soil PH/ acidity, Cation Exchange Capacity, nitrogen, salinity etc.:

.....



5.4 Water availability and quality

Groundwater table

- on surface
- < 5 m
- 5-50 m
- > 50 m

Availability of surface water

- excess (e.g. frequent waterlogging, high runoff)
- good (e.g. available year-round)
- medium (e.g. not available year-round)
- poor/ none

Water quality (untreated)

- good drinking water
- poor drinking water (treatment required)
- for agricultural use only (irrigation)
- unusable

Water quality refers to: ground water surface water both ground and surface water

Is water salinity a problem? Yes No Specify:

Is flooding of the area occurring? Yes No If yes: frequently episodically

Comments and further specifications on water quality and quantity (e.g. seasonal fluctuations, source of pollution)

5.5 Biodiversity

Indicate the state of biodiversity in the analysed sites relative to your region/ country standards. Tick one option per question.

Species diversity

- high
- medium
- low

Habitat diversity

- high
- medium
- low

Comments and further specifications on biodiversity:

Species diversity: a measure of diversity within an ecological community that incorporates both species richness (the number of species in a community) and the evenness of species' abundance; species include all fauna and flora above ground and in the soil (modified from eearth.org)

Habitat diversity: refers to the variety or range of habitats in a given region, landscape, or ecosystem (modified from oecd.org)

5.6 Characteristics of land users applying the Technology

Specify the characteristics of the average/ typical land users who apply the Technology. Indicate characteristics relative to your region/ country standards (max. 2 ticks per question).

Sedentary or nomadic

- Sedentary
- Semi-nomadic
- Nomadic
- other (specify):

Market orientation of production system

- subsistence (self-supply)
- mixed (subsistence/ commercial)
- commercial/ market

Off-farm income¹

- less than 10% of all income
- 10-50% of all income
- > 50% of all income

Relative level of wealth²

- very poor
- poor
- average
- rich
- very rich

Individuals or groups

- individual/ household
- groups/ community
- cooperative
- employee (company, government)

Level of mechanization

- manual work
- animal traction
- mechanized/ motorized

Gender³

- women
- men

Age of land users (several answers possible)

- children
- youth
- middle-aged
- elderly

¹ **Off-farm income:** income other than from the use of cropland, grazing land, forest, and mixed land (e.g. from business, trade, manufacturing, industry, pension, remittances)

² **Relative level of wealth:** use local instead of international standards

³ Indicate gender of persons using the land

Indicate other relevant characteristics of the land users:



5.7 Average area of land owned or leased by land users applying the Technology

Indicate the total area owned or leased by land users, including the land where no Technology is applied. (max. 2 ticks per question)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> < 0.5 ha
<input type="checkbox"/> 0.5-1 ha
<input type="checkbox"/> 1-2 ha
<input type="checkbox"/> 2-5 ha
<input type="checkbox"/> 5-15 ha
<input type="checkbox"/> 15-50 ha
<input type="checkbox"/> 50-100 ha
<input type="checkbox"/> 100-500 ha
<input type="checkbox"/> 500-1,000 ha
<input type="checkbox"/> 1,000-10,000 ha
<input type="checkbox"/> > 10,000 ha | Is this considered small-, medium- or large-scale (referring to local context)?
<input type="checkbox"/> small-scale <input type="checkbox"/> medium-scale <input type="checkbox"/> large-scale

Comments:
.....
..... |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



5.8 Land ownership, land use rights, and water use rights

(max. 2 ticks per question)

Land ownership

- state
- company
- communal/ village
- group
- individual, not titled
- individual, titled
- other (specify):

Land use rights

- open access (unorganized)
- communal (organized)
- leased
- individual
- other (specify):

Water use rights (if relevant)

- open access (unorganized)
- communal (organized)
- leased
- individual
- other (specify):

Are land use rights based on a traditional legal system?

- Yes, please specify:
- No, please specify:

Comments:

Land ownership refers to the type of entity possessing the land, whereas land use rights refer to the type of entity having a right to access the land

Land use rights/ water use rights:

- *Open access: means free for all*
- *Communal (organized): means subject to community-agreed management rules*
- *Leased: right to use land for a limited period of time against payment (contract)*
- *Individual: right of use pertains to single user*

5.9 Access to services and infrastructure

	poor	moderate	good
health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
technical assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
employment (e.g. off-farm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
roads and transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
drinking water and sanitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
financial services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other (specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

.....
.....
.....

6. Impacts and concluding statements

Assess relevant impacts in the table below. If data based on measurements are not available, give your best estimate. Negligible means “no significant benefit nor disadvantage”. Make use of the “Quantify before SLM/ after SLM” and “Comments/ specify” columns to show evidence and justify your selection as far as possible. Choose adequate indicators to quantify impacts (e.g. t/ha for crop production, coliform measurement for water quality, etc.). Even if a 10% increase (e.g. in yield) might be judged as a great improvement, please nonetheless tick the category “Slightly positive (+5-20%)”, and use “Comments” to explain. Only indicate “Quantify (before/ after)” if impacts were measured in the field or determined by means of a survey. Impacts that are not ticked are considered “not relevant” or “not applicable”.

On-site: concerns the area where the Technology is applied.

Off-site: concerns adjacent areas or areas further away from the area where the Technology is applied.

6.1 On-site impacts the Technology has shown

First, tick relevant impacts (tick boxes on the left, several answers possible). Then, for each selected impact, tick the extent and specify/ quantify if possible.

		Very negative (-50-100%)	Negative (-20-50%)	Slightly negative (-5-20%)	Negligible impact	Slightly positive (+5-20%)	Positive (+20-50%)	Very positive (+50-100%)	If possible, quantify before SLM	after SLM	Comments/ specify	
Socio-economic impacts												
Production												
<input type="checkbox"/> crop production	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> crop quality	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> fodder production	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> fodder quality	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> animal production	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> wood production	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> forest/ woodland quality	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> non-wood forest production	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> risk of production failure	increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	decreased	.....	.....	.....
<input type="checkbox"/> product diversity	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> production area	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> land management:	hindered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	simplified	.....	.....	.....
<input type="checkbox"/> energy generation (e.g. hydro, bio)	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
Water availability and quality												
<input type="checkbox"/> drinking water availability	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> drinking water quality	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> water availability for livestock	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> water quality for livestock	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> irrigation water availability	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> irrigation water quality	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> demand for irrigation water	increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	decreased	.....	.....	.....
Income and costs												
<input type="checkbox"/> expenses on agricultural inputs	incr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	reduced	.....	.....	.....
<input type="checkbox"/> farm income	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....
<input type="checkbox"/> diversity of income sources	decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	increased	.....	.....	.....

- economic disparities increased decreased
- workload increased decreased

Other socio-economic impacts

- (specify):
- (specify):
- (specify):

 **Sociocultural impacts**

- food security/ self-sufficiency reduced improved
- health situation worsened improved
- land use/ water rights worsened improved
- cultural opportunities (spiritual, religious, aesthetic etc.) reduced improved
- recreational opportunities reduced increased
- community institutions weakened strengthened
- national institutions weakened strengthened
- SLM/ land degradation knowledge reduced improved
- conflict mitigation worsened improved
- situation of socially and economically disadvantaged groups (gender, age, status, ethnicity etc.) worsened improved

Other sociocultural impacts

- (specify):
- (specify):
- (specify):

 **Ecological impacts**

Water cycle/ runoff

- water quantity decreased increased
- water quality decreased increased
- harvesting/ collection of water (runoff, dew, snow, etc.) reduced improved
- surface runoff increased decreased
- water drainage reduced improved
- groundwater table/ aquifer lowered recharge
- evaporation increased decreased

Soil

- soil moisture decreased increased
- soil cover reduced improved
- soil loss increased decreased
- soil accumulation decreased increased
- soil crusting/ sealing increased reduced
- soil compaction increased reduced
- nutrient cycling/ recharge decreased increased
- salinity increased reduced
- soil organic matter/ below ground C decreased increased

acidity increased reduced

Biodiversity: vegetation, animals

- vegetation cover decreased increased
- biomass/ above ground C decreased increased
- plant diversity decreased increased
- invasive alien species increased reduced
- animal diversity decreased increased
- beneficial species (predators, earthworms, pollinators) decreased increased
- harmful species (e.g. mosquitoes) decr. increased
- habitat diversity decreased increased
- pests/ diseases decreased increased

Climate and disaster risk reduction

- flood impacts increased decreased
- landslides/ debris flows increased decreased
- drought impacts increased decreased
- impacts of cyclones, rain storms incr. decreased
- emission of carbon and greenhouse gases increased reduced
- fire risk increased reduced
- wind velocity increased decreased
- micro-climate worsened improved

Other ecological impacts

- (specify):
- (specify):
- (specify):

Specify assessment of on-site impacts (measurements):

.....



6.2 Off-site impacts the Technology has shown

- water availability (groundwater, springs) decreased increased
- reliable and stable stream flows (incl. low flows) reduced increased
- downstream flooding¹
- downstream siltation¹
- groundwater/ river pollution increased reduced
- buffering/ filtering capacity (by soil, vegetation, wetlands) reduced improved
- wind transported sediments increased reduced
- damage on neighbours' fields increased reduced
- damage on public/ private infrastructure increased reduced

impact of greenhouse gases increased reduced

Other off-site impacts

(specify):

(specify):

(specify):

¹ Downstream flooding and downstream siltation can be desired or undesired. Please specify in comments column and indicate whether an increase is positive or negative.

Specify assessment of off-site impacts (measurements):

.....



6.3 Exposure and sensitivity of the Technology to gradual climate change and climate-related extremes/ disasters (as perceived by land users)

Indicate gradual changes in climate and climate-related extremes as observed by land users in the last 10 years (trend). Note: for a more detailed assessment, fill in questionnaire module on climate change adaptation.(several answers possible).

Type of climatic change/ extreme	Tick all gradual changes in climate and climate-related extremes/ disasters to which the Technology is exposed		How does the Technology cope with these changes and disasters in view of achieving its main purposes (as defined in 3.1)?					
	Increase	Decrease	very poorly	poorly	moderately	well	very well	not known
Gradual climate change								
<input type="checkbox"/> annual temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> seasonal temperature								
indicate season*:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> annual rainfall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> seasonal rainfall								
indicate season*:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> other gradual climate change (specify):			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate-related extremes (disasters)¹								
Meteorological disasters:								
<input type="checkbox"/> tropical storm (cyclone, typhoon, hurricane)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> extra-tropical cyclone (winter storm)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> local rainstorm			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ Source: Disaster Category Classification and Peril Terminology for Operational Purposes. CRED and Munich RE. 2009. Working Paper. 'Rainstorm' was added to replace 'generic (severe) storm', hailstorm was added, and the disaster subtypes 'rockfall', 'subsidence' and 'animal stampede' were left out.

<input type="checkbox"/> local thunderstorm	<input type="checkbox"/>					
<input type="checkbox"/> local hailstorm	<input type="checkbox"/>					
<input type="checkbox"/> local snowstorm	<input type="checkbox"/>					
<input type="checkbox"/> local sandstorm/ duststorm	<input type="checkbox"/>					
<input type="checkbox"/> local windstorm	<input type="checkbox"/>					
<input type="checkbox"/> local tornado	<input type="checkbox"/>					
Climatological disasters:						
<input type="checkbox"/> heatwave	<input type="checkbox"/>					
<input type="checkbox"/> cold wave (any time of the year, e.g. frost)	<input type="checkbox"/>					
<input type="checkbox"/> extreme winter conditions	<input type="checkbox"/>					
<input type="checkbox"/> drought	<input type="checkbox"/>					
<input type="checkbox"/> forest fire	<input type="checkbox"/>					
<input type="checkbox"/> land fire (grass, shrub, bush)	<input type="checkbox"/>					
Hydrological disasters:						
<input type="checkbox"/> general (river) flood	<input type="checkbox"/>					
<input type="checkbox"/> flash flood	<input type="checkbox"/>					
<input type="checkbox"/> storm surge/ coastal flood	<input type="checkbox"/>					
<input type="checkbox"/> landslide / debris flow	<input type="checkbox"/>					
<input type="checkbox"/> avalanche	<input type="checkbox"/>					
Biological disasters:						
<input type="checkbox"/> epidemic diseases (viral, bacterial, fungal, parasitic)	<input type="checkbox"/>					
<input type="checkbox"/> insect/ worm infestation (grasshoppers/ locusts/ worms, etc.)	<input type="checkbox"/>					
Other climate related extremes/ disasters:						
<input type="checkbox"/> (specify):.....	<input type="checkbox"/>					
Other climate-related consequences						
<input type="checkbox"/> extended growing period	<input type="checkbox"/>					
<input type="checkbox"/> reduced growing period	<input type="checkbox"/>					
<input type="checkbox"/> sea level rise (gradual change)	<input type="checkbox"/>					
<input type="checkbox"/> other (specify):.....	<input type="checkbox"/>					

* For temperate, boreal, and polar/ arctic climate choose: winter, spring, summer, and autumn;
 For tropics and subtropics choose: wet/ rainy season, dry season.

Comments:



6.4 Cost-benefit analysis

Refer to questions 4.5 and 4.7 (where costs for establishment and maintenance have been specified).

How do the benefits compare with the establishment costs (from land users' perspective)?

	very negative	negative	slightly negative	neutral/ balanced	slightly positive	positive	very positive
short-term returns:	<input type="radio"/>						
long-term returns:	<input type="radio"/>						

How do the benefits compare with the maintenance/ recurrent costs (from land users' perspective)?

	very negative	negative	slightly negative	neutral/ balanced	slightly positive	positive	very positive
short-term returns:	<input type="radio"/>						
long-term returns:	<input type="radio"/>						

Short term: 1-3 years; long term: 10 years

Specify/ comments:

.....



6.5 Adoption of the Technology

Note: For information on adoption barriers and adoption drivers (motivation of land users to implement the Technology), refer to the WOCAT Questionnaire on SLM Approaches.

How many land users in the area have adopted/ implemented the Technology?

Area: Refer to the country/ region/ locations defined in 2.5 and to the land use types described in 3.2.

- single cases/ experimental 1-10% 10-50% more than 50%

If available, quantify (no. of households and/ or area covered):

Of all those who have adopted the Technology, how many have did so spontaneously, i.e. without receiving any material incentives/ payments? 0-10% 10-50% 50-90% 90-100%

Comments:

.....



6.6 Adaptation

Adaptation: modifications made by land users to suit local context and changing conditions (Source: WOCAT)

Has the Technology been modified recently to adapt to changing conditions?

- no
 yes

If yes, indicate to which changing conditions it was adapted:

- climatic change/ extremes
 changing markets
 labour availability (e.g. due to migration)
 other (specify):

Specify adaptation of the Technology (design, material/ species, etc.)

.....

.....

6.7 Strengths/ advantages/ opportunities of the Technology

Give a concluding statement about the Technology. One statement only per text field. Differentiate between the perspectives of land users and key resource persons.



In land users' view¹:

- 1).....
- 2).....
- 3).....

4).....
.....

In the compiler's or other key resource persons' view:

- 1).....
.....
- 2).....
.....
- 3).....
.....
- 4).....
.....

¹ *Land user: the person/ entity who implements/ maintains the Technology, including individual small- or large-scale farmers, groups (gender, age, status, interest), cooperatives, industrial companies (e.g. mining), government institutions (e.g. state forest), etc.*

6.8 Weaknesses/ disadvantages/ risks of the Technology and ways of overcoming them

<i>Weaknesses/ disadvantages/ risks</i>	<i>How can they be overcome?</i>
 In land users' view:	
1).....
2).....
3).....
4).....
In the compiler's or other key resource persons' view:	
1).....
2).....
3).....
4).....

7. References and links

Indicate sources of information used for the compilation of information in this questionnaire.

7.1 Methods/ sources of information

Which of the following methods/ sources of information were used?

Specify (e.g. number of informants):

- | | |
|------------------------------------------------------------------------------------|-------|
| <input type="checkbox"/> field visits, field surveys | ..... |
| <input type="checkbox"/> interviews with land users | ..... |
| <input type="checkbox"/> interviews with SLM specialists/ experts | ..... |
| <input type="checkbox"/> compilation from reports and other existing documentation | ..... |
| <input type="checkbox"/> other (specify): ..... | ..... |

When were the data compiled (in the field)?

Comments:



7.2 References to available publications

List relevant publications relating to the Technology (reports, manuals, training materials, case studies, etc.). Upload those publications that are available as soft copies to the database.

Title, author, year, ISBN

Available from where? Costs?

.....
.....
.....
.....
.....
.....
.....
.....
.....

7.3 Links to relevant information which is available online

Title/ description

URL

.....
.....
.....
.....
.....
.....