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MINISTRY OF AGRICULTURE

# Guidelines for the Procedure of Land Identification and Verification for Commercial Agricultural Investments



BVVG

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

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## I. Introduction

The promotion of commercialized and mechanized agriculture is considered as one possible contribution to the further economic development efforts in Ethiopia. In addition to the traditional farming sector, which is predominantly characterized by smallholders and subsistence farming, large-scale agricultural investments are expected to provide input for the processing industry, bring foreign currency as well as technology transfer to the country. Furthermore, it is presumed that the local communities would benefit from employment and infrastructure improvements related to these investments.

However, even though on the first glance Ethiopia still has virtually untouched areas, land for agricultural purposes is a scarce resource. Due to the growing population and ongoing environmental changes, the availability of land will be even more limited in the near future. Hence, the allocation of new land for large-scale farming activities always has to take the different existing and possible future land uses into account.

From the beginning of land allocation efforts onwards, it has always been a declared political objective not to expand the large-scale farming activities at the costs of land used by small peasants. Yet, the reallocation of land for (large scale) farming can also have other negative impacts on the local population and the environment. Furthermore, it can also hamper the possibility to use the land in a more benefitting way taking into account the general public interest.

In this respect and within the existing social, economic and land regime related context in Ethiopia, the protection of livelihoods of local farmers, smallholders, pastoralists and/or indigenous people practicing traditional forms of land use in order to make their living is of vital significance.

In general terms, the allocation of new land for farming has to be thoroughly coordinated and can only take place if it is ensured that possible negative impacts are minimized to a minimum. The major guiding principle to identify appropriate land should not exclusively be the agricultural production potential or a short-term economic benefit but rather a focus on sustainability and the reduction of possible future land use conflicts.

The objective of the present guideline is to describe a model process of a comprehensive land identification and verification approach. By demonstrating a model process, it illustrates all necessary elements to carry out a comprehensive and sustainable land allocation process and describes the interrelation between the different agricultural and non-agricultural aspects.

Since land administration issues are in the constitutional responsibility of the Regional States, the demonstrated model process has to be adapted to the specific situations in the different regions. However, the guideline aims at establishing nationwide general standards in respect of the allocation of land for large-scale agricultural investment projects and to provide the responsible authorities with a set of adequate tools.

The present guideline is divided into two major sections. The first section (chapter II) gives an overall overview on the proposed land identification and verification process. In particular, it describes the underlying objectives and principles of the process and gives a general overview on process sequence. The second section (chapter III) then describes the different elements of the process in detail.

**Box 1 – Notice:**

The present guidelines were developed based on an analysis of the current land identification and verification practice of national and regional institutions. During the analysis, the Regional State of Benishangul-Gumuz was visited. Region specific issues and geographic topics or examples are based on the experiences in Benishangul-Gumuz.

All maps in these guidelines are only illustrative and serve as explanatory examples. Even though they are based partly on real GIS-based analyses they do not reflect the real situation and do not content binding statements.

In particular all boundaries and locations displayed in maps are indicative.



## II. Overall organization of the land identification and verification process

### A. Objectives and guiding principles of the land identification and verification process

The overall purpose of the planning process described in the present guideline is the identification of suitable land for large-scale, mechanized farming activities. The final outcome of the process is the identification of clearly defined parcels that don't interfere with other land use demands on one hand and the determination of areas that are excluded from large-scale farming activities on the other hand.

One important aspect of land suitability is of course its agricultural production potential. Following the parameters of the *Second Growth and Transformation Plan*, land for agricultural investments should be particularly suitable for the production of export relevant crops and raw materials for the domestic industry. However, the suitability is not only determined by technical parameters, but also by alternative land use demands and possibilities. For example, when taking into account the general public interest as well as the formalized and/or customary rights of private individuals or specific population groups and rating these parameters as more important, land might be classified as unsuitable for large-scale farming despite of the existing promising technical parameters.

Therefore, the major objective of the present planning process is not merely the identification of land, but the identification of land where potential land use conflicts are minimized. Furthermore, it aims to find a general accepted consent when potentially contradicting land uses exist.

Focusing on consensus building not only ensures that social and environmental aspects are considered. Also, potential investors can be certain about the suitability of tendered land. In particular in respect to preventing possible future conflicts between investor and local population this could be a valuable economic asset.

In order to minimize future land use conflicts the proposed identification process of land for commercial farming is organized in accordance with five major guiding principles.

- It lays special emphasis on the protection of livelihoods of local farmers, smallholders, pastoralists and/or indigenous people practicing traditional forms of land use in order to make their living. To avoid negative impacts on the economic base of these population groups the conversion of land into farmland for commercial use shall only be possible if a prior consent is given by the potentially affected population (c.f. *the FAO's Voluntary Guidelines on Responsible Governance of Tenure*).
- It enables at all stages of the land identification process the participation of all relevant stakeholders and in particular the representatives of civil society organizations and the general public.
- It focuses on the facilitation of a sustainable use of land and related resources (e.g. water) and the protection of environmentally, socially and economically valuable sites. It takes into

consideration not only the impacts of the large-scale farming activities on the potential farm site but also the influence on interconnected areas (like the downstream river basin)

- It follows an integrated planning approach, allowing a weighing of interests of different possible land uses. To enable a balanced decision between different sector-specific issues, other governmental entities and the public are requested to provide information and comment the different planning stages.
- It is an itinerating process. Involved stakeholders have at all stages of the process the possibility to reflect on first drafts and final outputs are based on the given comments.

## **B. Description of the overall procedure**

The land identification and verification are organized as a consecutive four-level process. Each succeeding step is based on the results of the prior level. Each phase of the process addresses a different spatial level and has a different focus regarding the coordination with varying types of stakeholders. Regarding the spatial definition of potential farming areas, the level of detail increases with every process step and areas with an opposing land use are excluded in each step from a further scrutiny.

During the first two steps potential land for large-scale farming activities is identified. In the following two steps the suitability of the identified land is verified.

The process starts at regional level with a large-scale analysis of the overall agricultural potentials as well as the identification of other land uses that might be in conflict with farming activities. Based on the analysis, potential search-areas for large-scale farming activities are defined and the potential search areas are assessed regarding their suitability from a socio-economic perspective. The process continues in a second step at local level. Within the previously identified search-areas the different land use demands are assessed and possible parcels are identified (all areas outside the search areas are excluded from further scrutiny). In the third step the potential parcels are verified regarding the demands of the local population. Finally, in the last and fourth step, the parcels that have been confirmed on the previous level are analyzed regarding their agricultural quality and site-specific use regulations are defined.

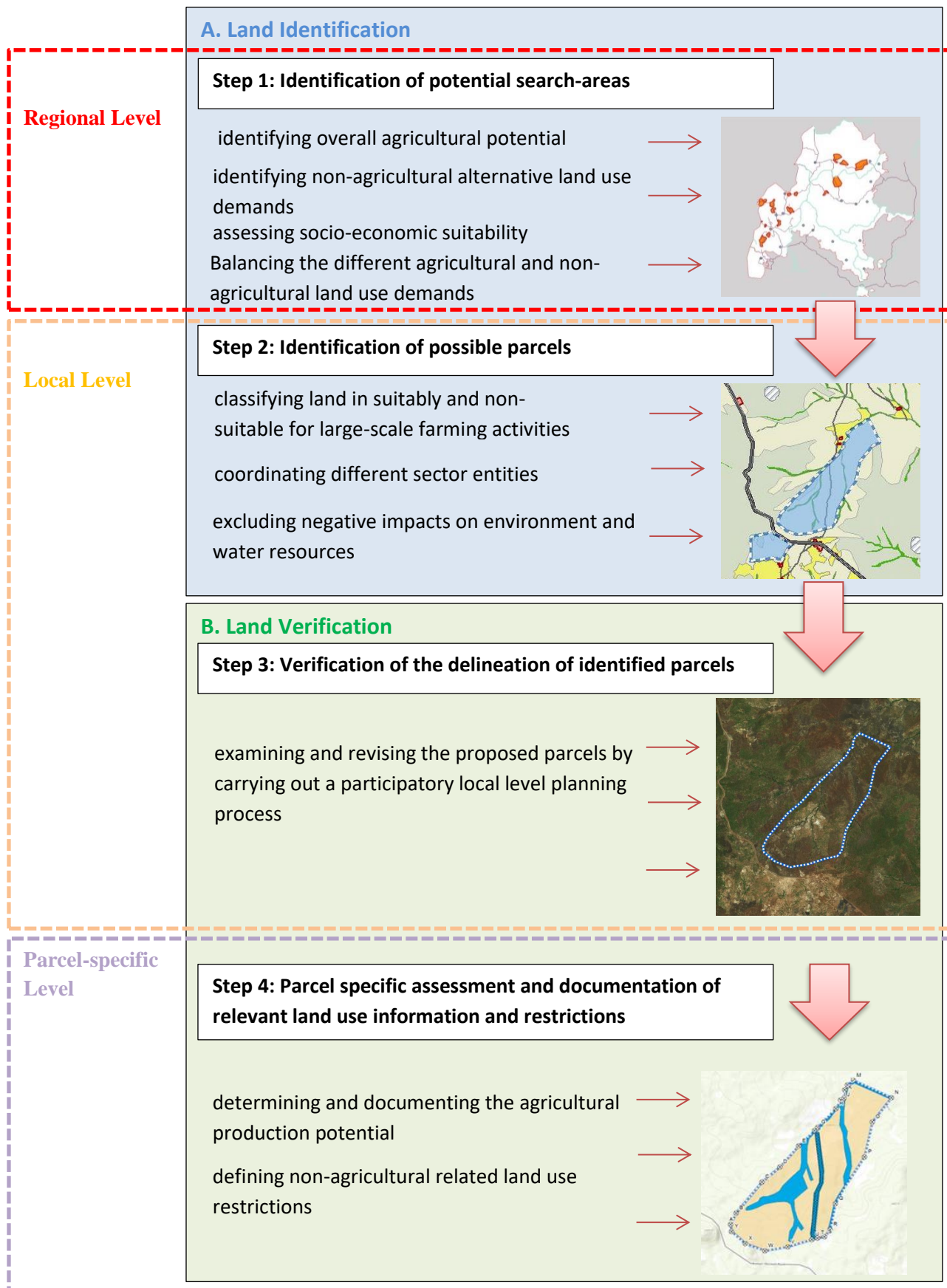
On all four levels, it is indispensable to coordinate the agriculture related sector specific needs with the demands of other sectors as well as with existing or potential public and private land use demands. While on regional level the major focus lies on the coordination with other governmental entities and civil society organizations, the local and the parcel-specific level covers the possibility to involve local communities and private land users. Nonetheless, on all levels the results of the analysis and the taken decisions (based on the analysis) have to be documented in a transparent and standardized manner. During all four steps of the process public as well as private stakeholders have to have the possibility to review and comment the results. Therefore, all four steps are organized as itinerating sub-processes. They start with an analysis and the preparation of a first draft. Different stakeholders get the possibility to review and to comment the first draft. The final version is prepared only after weighting and on the ground of the given comments.

The final outputs of the overall process are clearly defined parcels suitable for large scale farming activities. The borders of the parcels are exactly defined, the agricultural production potential is

documented and use restrictions (like areas to be excluded from farming activities for environmental protection reasons or public rights of way) are determined. An agreement is reached with other potential users – in particular with the local population –that the identified parcels are not needed for other purposes. Resulting from this, all other areas are excluded from large-scale farming activities.



Schematic overview of the overall identification and verification process:



### *Detailed overview on the major tasks that have to be carried out in the land identification and verification process*

The underlying basic principle of the land identification and verification process is a) to collect all relevant information in a systematized manner, b) to carefully balance the varying interests and demands and c) to finally come to a decision whether a certain area could be used for large-scale farming activities or not. Once, a certain area has been determined as not-suitable for the farming activities (either for a lack of agricultural production potential or another alternative land use is considered as more important) the area is excluded from further scrutiny and any large-scale farming activities.

As described in the previous paragraph, the process of classifying land in “suitable” and “not-suitable” land for large-scale farming activities takes place on three geographical levels (regional, local and parcel-specific) and is organized in four consultative steps. To carry out the four steps, a number of major tasks and sub-tasks are necessary. The following list gives an overview of the different tasks and their sequence.

For reasons of clarity, a further description of the different tasks was not included into the present list. A detailed description of the different tasks follows in chapter III of the guidelines from page 18 onwards. The subdivision of the guideline and the corresponding page number is indicated after each major task in brackets.

## Detailed overview of the identification and verification process:

### A. Land Identification (p.18)

#### A.1: Step 1: Identification of potential search areas on regional level (p.18)

##### A.1.a): Major Task: Identification of zones with high agricultural potential (p.18)

###### Sub-steps to fulfill the task:

- Data collection and analysis by reviewing existing documents and requesting the relevant authorities (e.g. agriculture, water, climate) to provide additional data
- Preparation of a map indicating the zones with high agricultural potential

##### A.1.b): Major Task: Identification of alternative land use demands (p.20)

###### Sub-steps to fulfill the task:

- Identification of governmental and nongovernmental stakeholders to be involved into the process
- Definition of a catalog of criteria about land uses that might interfere with large-scale farming activities
- Requesting stakeholders (in particular the different relevant sector authorities) to provide information about current and planned land uses
- Preparation of sector related maps indicating current and planned land uses

##### A.1.c): Major Task: Assessment of socio-economic suitability (p.24)

###### Sub-steps to fulfill the task:

- Review of existing and planned infrastructure in potential search areas
- Assessment of existing labor force in potential search areas
- Assessment of relevant public utilities in the potential search areas
- Alignment with federal and regional investment planning

##### A.1.d): Major Task: Coordination and balancing of the different land use demands and agricultural potentials (p.25)

###### Sub-steps to fulfill the task:

- Intersection of the different land use demands and agricultural potentials and development of a first proposal to weight the different interests (→ Documentation of the proposal in a first draft map)
- Presentation of the first draft to the public and different stakeholders and request to comment the first draft.
- Revision of the first draft (in consideration of the received comments) and preparation of a second draft
- Presentation of the second draft to the public and different stakeholders and request to comment the second draft.
- Preparation of final version
- Legitimation of the final version

**Major output of step 1 (document):** Map indicating the search areas

**Major outcome of step 1 (result):** The different land use demands on regional level are identified and a decision has been taken in favor of one of the potential land uses while considering the general public interest

#### A.2: Step 2: Identification of potential parcels for large scale farming activities (p.31)

##### A.2.a): Major Task: Classification of the area within the search areas into farming areas and areas excluded from farming activities by preparing a preliminary sectoral land use plan (p.33)

###### Sub-steps to fulfill the task:

- Preparation of a land use and coverage map (analysis of the current land uses)
  - o Analysis of aerial pictures and review of existing documents and plans
  - o On-site inspection of potential areas for large-scale farming activities identified during the previous desk study



- Preparation of a preliminary sectoral land use plan (classifying the land into proposed large-scale farming areas and areas excluded from farming activities and indicating the borders of the proposed large-scale farming parcels)

**A.2.b): Major Task: Coordination of preliminary sectoral land use map and plan with other sector entities (p.38)**

**Sub-steps to fulfill the task:**

- Presentation of the preliminary sectoral land use plan to the different sector agencies in the region and on Woreda level with the request to submit comments on the plan
- Revision of the preliminary sectoral land use plan under consideration of the given comments

**A.2.b): Major Task: Preparation of an Environmental Feasibility Study and Water Resource Protection Study (p.38)**

**Sub-steps to fulfill the task:**

- Preparation of Environmental Feasibility Study (EFS) and Water Resource Protection Study (WRPS) for each proposed large-scale farming parcel
- Revision of the preliminary sectoral land use plan under consideration of the results of the different EFS and WRPS

**Major output of step 2 (document):** Map indicating the proposed borders of possible parcels for large-scale farming activities (preliminary sectoral land use plan)

**Major outcome of step 2 (result):** The land use demands of the different public entities on local level are identified and proposal for possible parcels is developed

## B. Land Verification (p.39)

### B.1: Step 3: Verification of the delineation of parcels for large-scale farming activities (p.39)

**B.1.a): Major Task: Examination and Revision of the proposed parcels for large-scale farming activities (as documented in the preliminary sectoral land use plan) by carrying out a participatory local level planning process (p.39)**

**Sub-steps to fulfill the task:**

- Identification of the local stakeholders to be involved into the planning process
- Preparation of detailed map (based on aerial pictures or orthophotos) indicating the proposed borders of the large-scale farming parcels
- Carrying out a participatory local planning session
  - o Mapping the current land uses and land use demands with the local community
  - o Discussing the general compatibility of large-scale farming activities with the land use demands of the local community
  - o In case a general compatibility is confirmed by the local community, delineation of the exact border of the future parcel and definition of use restrictions at the parcel
- Documentation of the results of the participatory planning process and based on the results revision of the borders of the parcels
- Preparation of detailed aerial pictures indicating the revised borders of the large-scale farming parcels

**B.1.b): Major Task: Survey and registration of the final parcel (p.44)**

**Sub-steps to fulfill the task:**

- GPS-based survey of the borders of the confirmed parcels

- Registration of the parcel in the land registry (the technical survey has to be carried out before the legitimation while the official registration has to take place time-wise after the legitimation)

**B.1.c): Major Task: Preparation of the final sectoral land use plan (p.44)**

**B.1.d): Major Task: Legitimation of the final version of the border of the parcel and official approval to transfer the parcel to the land bank (p.44)**

**Sub-steps to fulfill the task:**

- Presentation to and confirmation of the final borders by representatives of the local community
- Legitimation by the Kebele Land Administration Committee
- Approval by the responsible governmental organization in charge (e.g. Bureau Head of Land Administration)

**Major output of step 2 (document):** High resolution aerial pictures indicating the borders of the large-scale farming parcels and registration of the parcels in the cadaster

**Major outcome of step 2 (result):** The general compatibility large-scale farming parcels with other land use demands at the respective location is confirmed and a consensus on the borders of the parcel with the local community has been reached.

**B.2: Step 4: Parcel specific assessment and documentation of relevant land use information and restrictions (p.45)**

**B.2.a): Major Task: Detailed survey of the agricultural potential and development of an (agricultural) land use proposal (p.45)**

**Sub-steps to fulfill the task:**

- Desk-study and collection of general data describing the agricultural suitability of the previous identified specific parcel (e.g. climate, rain patterns and temperature)
- On-site analysis of the necessary parameters to describe the suitability of the parcel (e.g. soil properties)
- Development of a proposal for possible crops that could be cultivated on the specific identified parcel

**B.2.b): Major Task: Identification of (non-agricultural related) land use restrictions (p.46)**

**Sub-steps to fulfill the task:**

- Identification of areas within the parcel that should be excluded from agricultural activities (e.g. for environmental protection)
- Identification of customary rights or land uses by the local community within the parcel that should be protected (e.g. rights of way)

**B.2.c): Major Task: Preparation of a parcel-profile-sheet and map (p.48)**

**Sub-steps to fulfill the task:**

- Documentation of the relevant data in respect of the agricultural suitability
- Mapping the (non-agricultural related) land use restrictions within the parcel

**Major output of step 3 (document):** Parcel-profile-sheet with supplementary maps

**Major outcome of step 3 (result):** All relevant information for further marketing of the parcels is documented

## C. Required human resources

Land identification and verification is a complex process that requires a strong overall management and input from experts with various technical backgrounds. Additionally, the process has to be linked to the local level. It is a temporally limited process with a high demand of well trained staff at various administrative levels and a region-wide coverage. However, due to the highly variable work load (the process has to be implemented for the entire region at once and then requires revision after a period of approximately five to ten years) it is not necessary to maintain the full manpower permanently or to create new administrative entities on the different involved levels. In particular with respect to the existing personnel and technical equipment of the Woredas and Kebeles it does not appear feasible to enable all local administrations in the region to implement the land identification and verification process. Yet, notably during the verification activities at the local level the Woreda and Kebele administrations are important facilitators and carriers of information and communication.

Against this background it is recommended to create [1] a management and support unit on regional level, [2] to identify focal persons in the Woreda's and respectively in the Kebele's land administration offices and [3] to commission participatory-planning-support-teams. In specific cases (e.g. in case available experts in the regional administration are lacking) it might be necessary to additionally [4] commission external short-term consultants to carry out a parcel specific assessment of the agricultural potential.

While the management unit is responsible for the overall process and implementation of the general land identification activities (in particular step 1 and 2), the organization of the participatory local level planning process as described in step 3 lies in the responsibility of the Woreda/Kebele focal persons. Since in the most cases the Kebele administration does not have the capacity and technical expertise to carry out the planning sessions, it will be supported by the participatory-planning-support-teams. These teams (which are e.g. composed by an external sociologist, a land use planner and a seconded expert of the regional bureau of land administration) are responsible for conducting the local planning session in cooperation with the Kebele administration. The task of the support-teams is to provide the expertise, while the Kebele administrations focus in particular on organizational issues and the activation of the local stakeholders.

The final parcel specific assessment and documentation of relevant land use information and restrictions (step 4) then again is in the responsibility of the regional management unit. In particular, if the management unit lacks the available manpower to carry out the detailed assessment of the agricultural production potential of each verified parcel, it might be necessary to commission this task to external short-term experts.

Aside of the above described main tasks, the Woreda/Kebele focus persons also have the responsibility to support the regional management unit by collecting data on the spot and provide comments to step 1 and 2 as representatives of the local level.

The chart displayed below contains an overview about the recommended set-up to fulfill the model process as described in the guideline. It focuses in particular on the required minimum expertise of the



different proposed organizational units and gives an impression about the necessary human resources. However, the organization of responsibilities and organizational units depends on the specific situation in the regional state with respect to human resource and financial capacity.

### Overview: Proposed organization of required personnel

<b>Management and Support Unit (MSU) on regional level</b>	
The major responsibility of the MSU is the overall management of the process. At the same time the MSU has to carry out a number of analytic, coordination and planning activities at different stages of the process. The MSU is the main resource that provides technical expertise within the identification and verification process.	
<b>Required expertise:</b>	General management expertise / geographer or rural land use experts / experts on environmental issues and water resources / expert on economic development / agricultural experts / GIS-experts
<b>Major tasks/ responsibilities:</b>	
<b>[1] Overall responsibility and management of the entire land identification and verification process</b>	
<b>[2] Adaptation of the process to the specific situation in the region.</b>	
	[a]Preparation of work plans and time tables
	[b]Preparation of management material (e.g. standardized form for documentation of results)
	[c]Preparation of training material
	[d]Identification of stakeholders on regional level
<b>[3] Technical implementation of working steps 1, 2 &amp; 4</b>	
	[a]Identification and assessment of zones with high agricultural potential, alternative land use demands and socio-economic suitability on regional level
	[b]Coordination and balancing of the different land use demands and agricultural potentials on regional level and definition of search areas
	[c] Analysis and documentation of existing land uses in the search areas
	[d] Proposal of possible parcels (-> to be confirmed in step 3)
	[e]Detailed analysis and documentation of agricultural potential of each identified and confirmed parcel (might be commissioned to external consultants)
<b>[4] Technical support to sub-regional and local level</b>	
	e.g.: Preparation of GIS-maps and data processing; provision of vehicles etc.
<b>Focal Persons in Woreda land administrations (FPW)</b>	
The major focus of the FPW is to interlink the local with the regional level and provide specific information from the local level to the MSU	
<b>Required expertise:</b>	General administrative and organizational skills with basic knowledge about rural land use planning / experts on environmental issues and water resources
<b>Major tasks/ responsibilities:</b>	
<b>[1] Support of the Management and Support Unit on the spot</b>	
	[a] Data collection on request of the MSU
	[b] Coordinating of the assessment and commenting of the results of step 1 and 2 from the local level
<b>[2] Preparation of the Environmental Feasibility Study and the Water Resource Protection Study</b>	
<b>[3] Support of the Kebele administration implementing the local level planning sessions</b>	

<b>Focal Persons in Kebele land administrations (FPK)</b>	
The major focus of the FPK is to interlink the local community with the administration and to work as a contact person with respect to all questions regarding the land identification and verification process.	
<b>Required expertise:</b>	General administrative and organizational skills with basic knowledge about rural land use planning
<b>Major tasks/ responsibilities:</b>	
<b>[1] Organization of the local level planning process</b>	
	[a] Contact person between local community and administration
	[b] Technical organization (e.g. identification and invitation of stakeholders)
	[c] Participation in and facilitation of the planning sessions
<b>[2] Facilitation and tracking of the legitimation of the parcels by the local community</b>	
<b>Participatory-Planning-Support-Teams (PPST)</b>	
The PPST provides to the Kebele administration the different expertise which is necessary to carry out local level planning processes. Since the PPST is organized as a mobile team it is not necessary to build the required capacity to carry out the verification process in each Kebele.	
<b>Required expertise:</b>	Sociologist / geographer or rural land use expert / land administrator
<b>Major tasks/ responsibilities:</b>	
<b>[1] Support of the Kebele administration in implementing the participatory local planning process</b>	
	[a] Professional support in preparing the sessions (e.g. stakeholder identification / sequence planning)
	[b] Conducting and documentation of the planning sessions in cooperation with the Kebele administration

#### **D. Relation to previous land identification activities**

One objective of the First Growth and Transformation Plan (GTP 1; 2010-2015) was the identification of areas that are not inhabited but are suitable for agriculture. It has been reported that approx. 2.4 m ha of land have already been allocated to around 6.000 private foreign and domestic investors mostly by the regional governments. Approximately further 3.5 m ha were transferred from the regions to the so called federal land bank. Only about 0.5 m ha of this land is currently leased out.

The underlying basic principle of the identification process has been that the large-scale farming activities exclusively relies on hitherto unutilized and unoccupied land not used for farming, environmental conservation or wildlife conservation. However, the experiences of the previous process have shown that the identified land does not fully meet the demands of agricultural investors and that it has not been possible to minimize land use conflicts in all cases.

Therefore, it is recommended to apply the three-step approach of the present guideline equally in an entire region. Land transferred to either the regional or the federal land bank that has not been leased out (respectively where lease contracts have been canceled) should be subject to review applying the procedure according to this guideline. In other words, land in the land banks should be treated in the same way like land that has not yet been identified.

In particular previous identified land that is not located within the new search-areas should be considered as not suitable and should not be promoted as agricultural investment sites. In contrary, previously identified land from the land bank that is located in a search-area provides a valuable input to the preparatory work in the second sub-process (classification of land-uses within the search-area).

## **E. Time-frame**

The present guideline defines all relevant elements and the sequence to be followed during the land identification and verification process. Although each step builds on the previous and it is not possible to leave aside an element, the time needed to carry out the entire process might vary considerably from region to region. The differences especially depend on the quality of the existing analytic work (since no Regional State starts from the scratch) and on the availability of human and technical resources (taking into account that the verification has to take place in several areas in parallel).

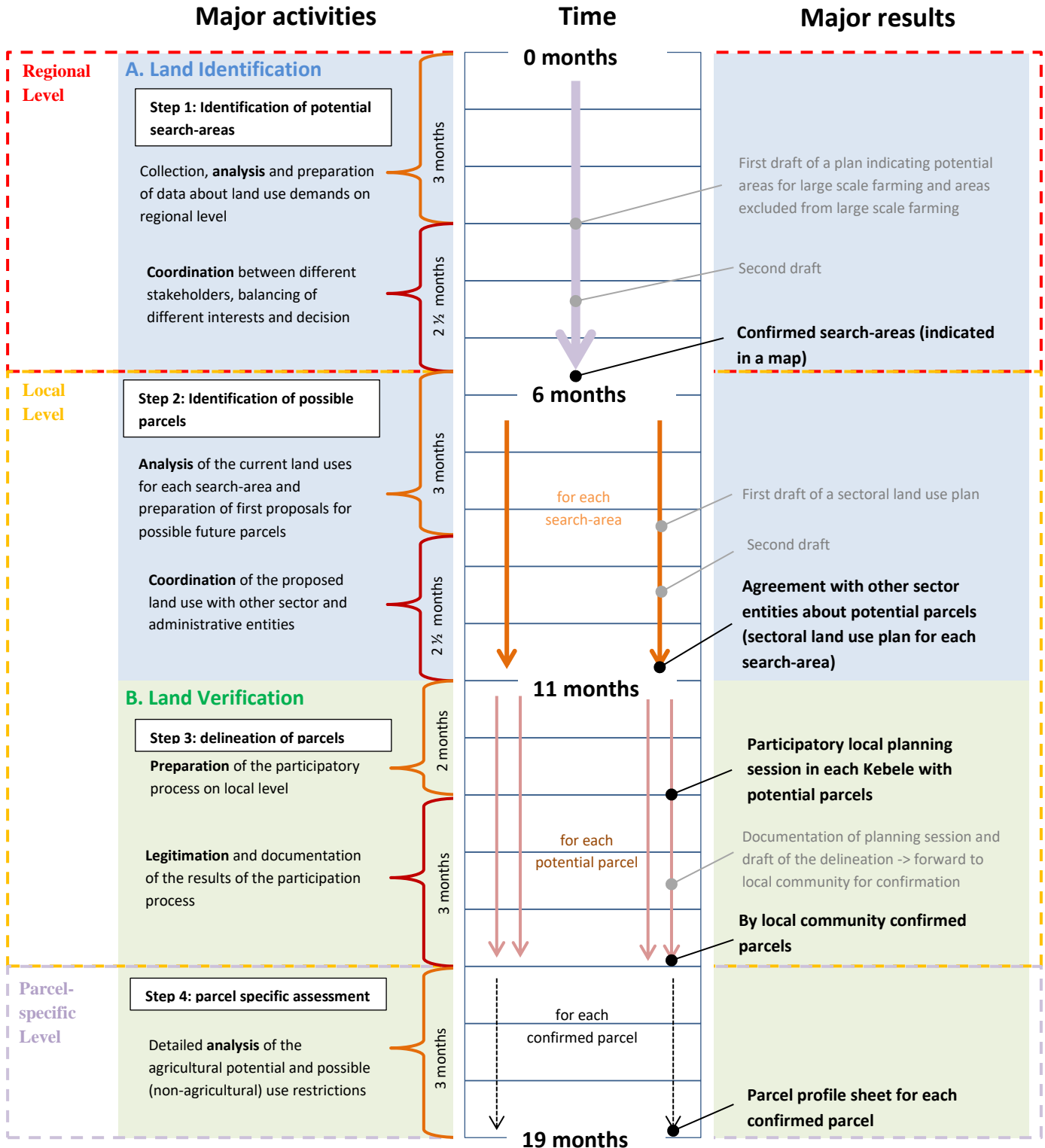
On the other hand, it is also evident that the proposed process –particularly, due to the emphasis on a more participatory approach - in each Regional State requires more time than the former procedures.

Against this background it is very difficult to make a general statement about the required time for the entire process. In point of fact, it is necessary to adapt the standards of the present guideline to the specific situation of each Regional State and, in a further step, to define a customized time-line.

Yet, the below displayed chart about the time-frame gives an overview of the estimated minimum time needed for the different steps of the process. Summed up, the total time of all activities is 19 months. However, in that context it is important to note that this is an approximate figure, which is meant only to build a sense of what time is needed for such kind of process. Certain activities could be possibly accelerated (in particular the analytic tasks), others might take longer. In this respect attention should be paid to the fact that steps 3 and 4 have to be applied to a number of potential parcels. The time indicated in the chart is the time needed to verify one potential large-scale farming area. Thus, depending on the available resources, the finalization of the verification process for the entire region might take significantly longer.



## Time-frame overview



### **III. Detailed description of the working steps (sub-processes)**

#### **A. Land Identification**

##### **Step 1: Identification of potential search areas on regional level**

The identification of general search areas suitable for large scale farming activities offers the possibility to coordinate other relevant land use demands in public interest with the objective to provide land for mechanized commercial agriculture. At the same time, by excluding areas with a land use that is considered as more important from the point of view of common good, it helps to concentrate the limited resources of the responsible authority on those areas that have a considerable agricultural potential and are less prone to land use conflicts.

The first sub-process is an important preparatory step for the subsequent specification in respect to the specific local conditions in step two of the process. Hence, it focuses geographically mainly on the regional level and predominantly different governmental institutions are involved. Nonetheless, in particular civil society organizations have the right to participate in the process and could provide important information. A transparent documentation of the different working phases and a pro-active communication strategy enables the general public to accompany and comment the process.

The core task of the first sub-process is to balance the sectoral demand of large-scale farm land with other sectoral planning or land use demands.

The preparatory work for this task is three folded. First, zones with high agricultural potential have to be identified (described under A.1.a / p.18). Second, alternative or contrasting land use demands as well as potential areas with a potentially higher value have to be identified (described under A.1.b / p.20). Third, the potential search-areas are assessed regarding the socio-economical suitability described under A.1.c / p.24).

In a following consultation process the findings of the three analyses have to be evaluated and coordinated with the different stakeholders (described under A.1.d / p. 25). The final output is a classification of the entire regions in search areas with potential for large-scale farming and areas excluded from large-scale farming (described at p.25f).

In all phases of the process it is necessary to request the support of the different regional sector bureaus and other governmental entities as well as civil society organizations.

##### ***a) Identification of zones with high agricultural potential***

The objective of the working step is the mapping of zones with high agricultural production potential. These regions are areas with high potential e.g. due to the extraordinary soil quality, favorable climate conditions (e.g. rainfall patterns) or irrigation potential.

Data on agro-ecological zones<sup>1</sup> in Ethiopia are available so that those zones with high agricultural potential are well known and an abundant number of studies are available. Data from the AEZ study conducted by the Ministry of Agriculture should be used as basis for determining zones with high agricultural potential. Where data is lacking, the procedure as described in FAO's Agro-Ecological Zoning Guideline should be applied.

**Box.2: Agro-ecological Zoning Zone and Cell**

Agro-ecological Zoning (AEZ) refers to the division of an area of land into smaller units, which have similar characteristics related to land suitability, potential production and environmental impact. An Agro-ecological Zone is a land resource mapping unit, defined in terms of climate, landform and soils, and/or land cover, and having a specific range of potentials and constraints for land use. An Agro-ecological Cell (AEC) is defined by a unique combination of landform, soil and climatic characteristics. The AEC is the basic processing unit for physical analysis in an AEZ study. The essential elements in defining an Agro-ecological zone (or cell) are the growing period, temperature regime and soil mapping unit.

**Source: FAO, 1996<sup>2</sup>**

The focus during the land identification process lies on the compilation of the different existing data and the display in a map. At this present stage of the land identification process it is not necessary to carry out a detailed analysis, since a specific determination of the agricultural productivity key figures takes place at a later stage of the process and for later demarcated parcels only (see B.2.a / p.45).

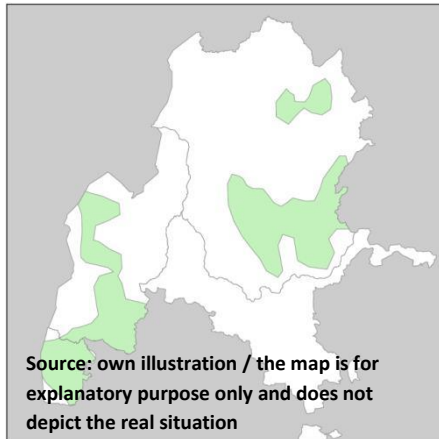
The output of the working step "Identification of zones with high agricultural potential" is a set of maps in a scale displaying the entire regional state and indicating the zones with high agricultural potential.

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<sup>1</sup> Agro-ecological zones are defined, which have similar combinations of climate and soil characteristics, and similar physical potentials for agricultural production

<sup>2</sup> AGRO-ECOLOGICAL ZONING Guidelines FAO Soils Bulletin 76 Soil Resources, Management and Conservation Service FAO Land and Water Development Division, Food and Agriculture Organization of the United Nations, Rome, 1996

Sample map: Zones with potential for wheat production



Potential zone for wheat production

### Box 3: Strategic crops

Since the key objective of the development of mechanized, commercial farming is to boost the production of industrial raw materials for domestic industry and exportable goods, the major focus in identifying the zones of high agricultural potential relates to the following crops. For each of the following crops a map has to be developed.

Strategic crops according Growth and transformation plan (GTP):

- Cotton
- Date palm
- Tea
- Rubber tree

## b) *Identification of alternative land use demands*

The target of the sub-step is to collect and map information on possible alternative land uses that might be contradictory to large-scale farming activities. A comprehensive (and as wide-ranging as possible) analysis of alternative land uses is indispensable to enable a sound weighting of different land use demands as described in the following working step (see chapter A.1.d / p.25).

It is partly possible to identify these land uses in a desk study by examining existing planning documents. However, the focus of the work lies on the exchange with other governmental sector entities and the request and further processing of information (in particular with the different sector bureaus on regional level).

Based on the experiences of the previous land identification activities a preliminary catalog of criteria to identify possible contrasting land uses was developed (see box below). The catalog contains criteria that exclude large-scale farming due to physical reasons (e.g. areas with an unsuitable topography) and criteria related to possible alternative land use that might have a higher value in the scope of the general interest. Criteria related to possible alternative land uses focus on issues with a special need for protection. In this context a special emphasis lies on the environmental protection and the preservation of resources needed for the further sustainable development of the country (e.g. water, biodiversity or climate resilience) and the protection of vulnerable population groups (e.g. smallholders or indigenous people practicing traditional forms of subsistence). However, the latter criteria also relate to land uses that might have a higher social or economic value. An economic value might be a tangible resource, like e.g. a mining potential. But it could also be a less tangible subject, like the beauty of a landscape and the related touristic potential. The promotion of large-scale farming activities in those areas of touristic interest might for example have a negative impact on the further touristic development. Therefore, a thorough weighting between those two possibly conflicting land uses is required.

The preliminary catalog of criteria as displayed below is not to be regarded as final. It offers an overview only and has to be adapted to the specific regional conditions. Thus, a first preparatory step is to revise and replenish the criteria in cooperation with the relevant stakeholders in the region.

Based on the revised preliminary catalog all relevant sector entities and civil society organizations on national, regional and Woreda level are requested to submit information about current or planned land uses that might contradict the use of the land for large-scale farming activities. As a preparatory step a list of relevant stakeholders should be compiled. The list should content all sector entities at the different tiers of the government (ministries, bureaus and offices) dealing with space-related topics. Special emphasis should be given to infrastructure planning, environmental protection, water, promotion of business activities (including tourism) as well as civil society organizations representing vulnerable populations (e.g. indigenous people) or environmental issues.

Depending on the capacity of the different sector entities it might be necessary to organize a workshop to inform about the identification process and to explain the form and quality of the requested data. In this context the sector entities should be explicitly encouraged to provide information about possible land uses that are not part of the preliminary catalog of criteria but might contradict the use of the land for farming activities.

The organization in charge of the identification process collects and documents the contribution of the different sector entities according to a standardized form. Parallel, the organization in charge (respectively an external service provider in case of insufficient capacity) collects and processes necessary primary data (e.g. shape-files) and prepares different thematic maps displaying the possibly contradicting land uses.



## Preliminary catalog of criteria to identify possible contrasting land uses

### **Areas that have to be excluded from large-scale farming activities due to physical reasons**

- Mountain areas
- Urban areas
- Dessert areas without the possibility of irrigation
- Areas that due to the water availability and/or soil quality are not suitable for large-scale farming activities
- Water bodies (including impounding reservoir of future dam projects)
- Military areas
- Infrastructure, existing and planned (corridors for roads, railway and electricity, planned dam projects)

### **Areas that have to be protected from large-scale farming activities**

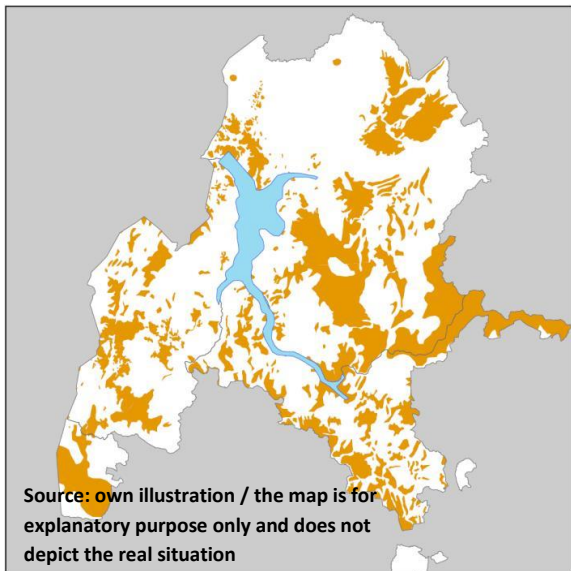
- Officially designated national parks or natural protection areas
- Wetlands and swamps
- Areas predominately used by small holders
- Possible extension areas for small holder use
- Areas used by indigenous people to practice traditional ways of living
- Possible extension areas for urban areas

### **Areas with a higher value from the perspective of general interest**

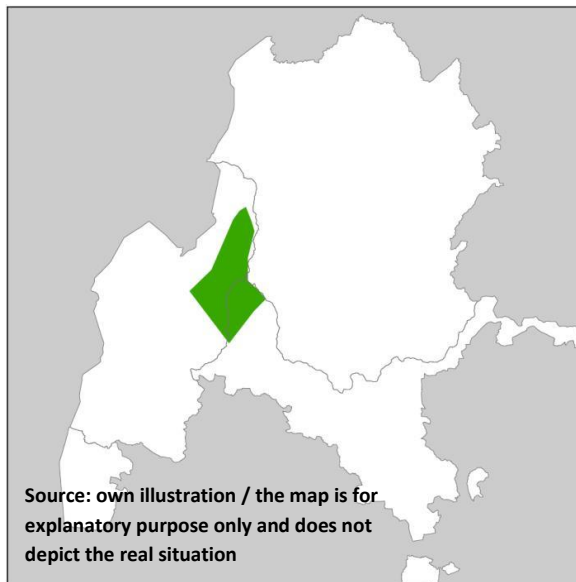
- Natural areas with high biodiversity, important game population or areas with yet limited human influence (not yet officially designated as protection area)
- Areas of natural beauty and touristic potential
- Mining areas
- Areas important for portable surface or groundwater generating and sensitive to the pollution by agricultural activities
- Areas which are only usable with irrigation and the irrigation would have a significant impact on the water regime (e.g. the irrigation with surface water would cause that a river falls dry further downstream)


**Sample maps: Potentially contrasting land use demands**


**Exclusion for physical reasons**




**Areas with a higher value from the perspective of general interest**

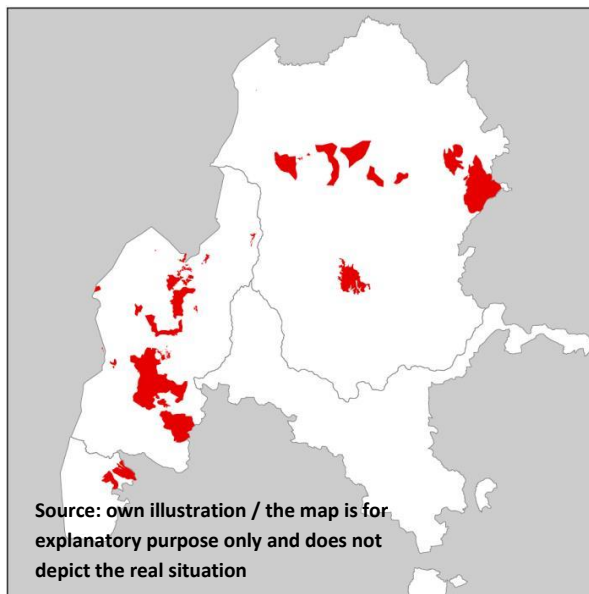



 Unsuitable area  
Because of  
topography

 Flooding area of  
future Grand Eth.  
Renaissance Dam

 Natural conservation  
area

**Areas excluded by political decision**



 Area predominately with  
smallholder agriculture

### c) *Assessment of socio-economic suitability of potential large-scale farming areas*

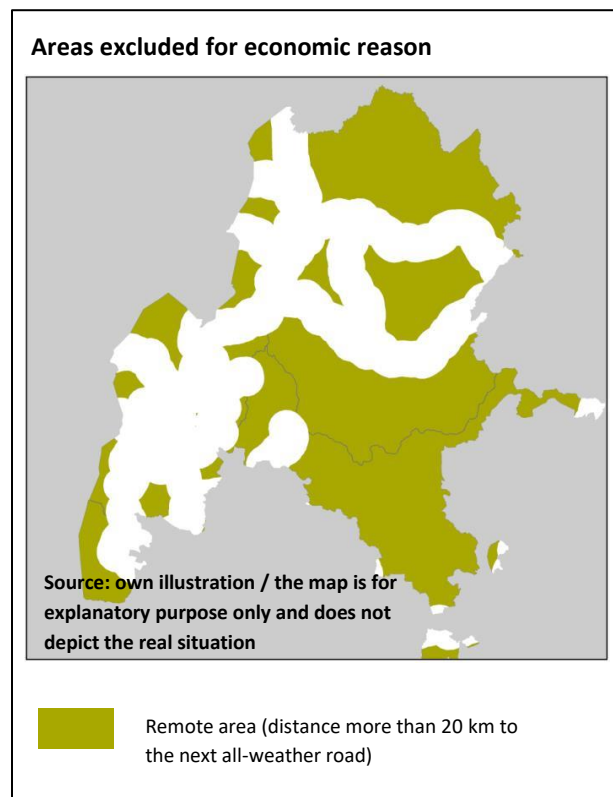
Beside the agricultural production potential and the alternative land use demands, the third dimension that has to be taken into consideration is the socio-economic suitability of those regions that are designated as potential areas for future large-scale farming activities. In the present context, socio-economic suitability refers to the existing human and technical resources as well as to public services that are required to unleash the agricultural potential. If, for instance, skilled labor forces or adequate roads for transportation are missing, the theoretically existing production potential can't be capitalized to its full extend.

However, even though the importance of the existence of well-trained labor force, infrastructure and public services as a basic prerequisite is undisputed, it is infinitely more difficult to describe the socio-economic suitability of a potential farmland area by a set of key-numbers. For instance, as the example of skilled workers shows, the sheer existence or absence of a vocational training center in a certain area, has a very limited informative value on the availability of trained personnel for large-scale farming projects. If in the area a training center exists, the graduates might migrate to areas with better living conditions. The other way around, investors might convince employees to move to the remotest areas by offering e.g. attractive salaries.

The same logic even applies to some extent to technical infrastructure or public services. If the cost benefit ratio is good enough, a potential investor might install its own grid-independent power supply or construct a private health post.

One of the main underlying principles of the land identification process is the objective to develop primarily hitherto "unused" land as future large-scale farming land. In this context the most important factor determining the economic suitability of possible future large-scale farming land is the accessibility of the area. In consideration of the general character of the Ethiopian Western Lowlands (as the major geographical target region for the large-scale farming activities) the assessment of the economic suitability on regional level is based on the assumption that areas located in a distance greater than 20 km to the next all-weather road are in general not suitable.

Hence, in a first step all remote areas (distance more than 20 km to the next all-weather road) are excluded from the search-areas for large-scale farming activities on regional level. A further assessment of the socio-economic suitability will only be carried out within the borders of the possible search-areas.



In a second step, for each possible search-area a qualitative short study will be prepared. Due to the above-mentioned difficulty to describe the socio-economic suitability by statistical analyses, the expert led rapid appraisal as the most appropriate approach. The short study is considering the following guiding questions:

- a) Is the existing and planned infrastructure in the area sufficiently developed to enable a modern, mechanized agriculture?
- b) Are there sufficiently trained labor forces in the area, or in the vicinity?
- c) Is the public and private service sector in the area sufficiently developed to attract the required qualified personnel in the mechanized farming business?

In case, where point A and C are considered insufficient:

- d) Would a governmental (either regional or federal) investment into the improvement of the infrastructure be useful and would it be possible to integrate the investment into the next investment plan?

The result of the short study, will be considered in the below described coordination process. In case the respective area is assessed as “very poorly suitable”, this might lead to an exclusion from further large-scale farming activities in the area, despite, the potential of high agricultural production.

#### ***d) Coordination and balancing of the different land use demands and agricultural potentials***

The coordinating process is three folded. First, in a preparatory step the information gained during the previous step is analyzed and the organization in charge of the identification process by weighting the different interests prepares a first draft indicating the potential search-areas and other land uses that prevent farming activities. Second, as the core activity during this planning phase, the draft is discussed within different sector entities and the public. Third, based on the results of the previous participation process a final version is developed and approved.

##### **Preparation of a first draft**

During the previous steps information on potential areas on the one hand and possibly conflicting land uses on the other has been gained and mapped. Following the classical approach of *potentials and constraints* in the present working phase it is necessary to intersect the maps illustrating the different land demands. By layering the different maps, it is possible to i) identify areas without major land conflicts and ii) areas with contradicting land use demands (see schematic diagram below). Regarding ii), a decision has to be taken in favor of one or the other land-use. To enable the subsequent discussion with other stakeholders, the organization in charge of the land identification process develops a proposal to weigh the different land use demands in due consideration of general public interest.

The proposal to weigh the different land use demands (either a decision has to be taken in favor of potential farming land or in favor of an alternative land use) is documented and justified in written form

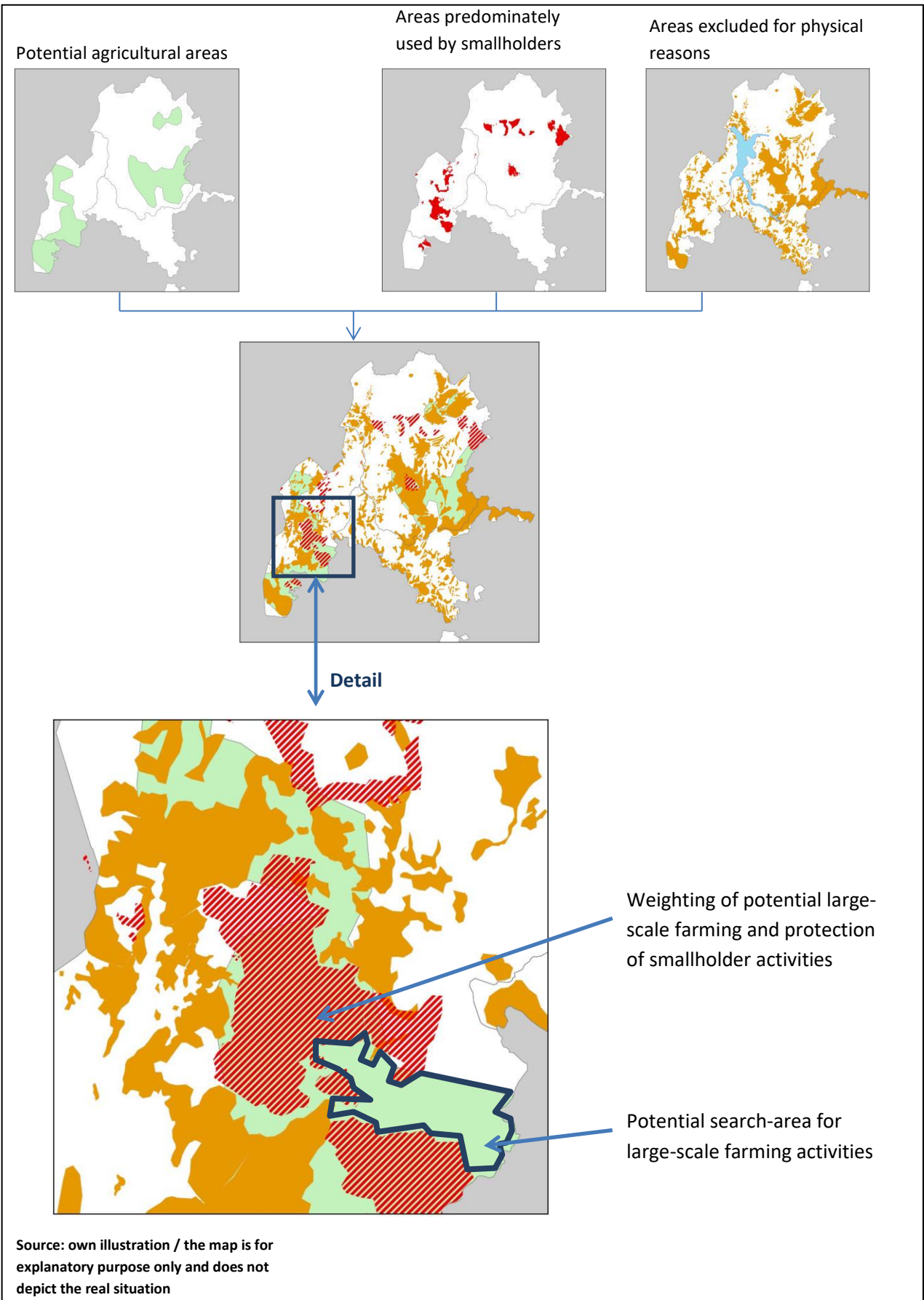
as well as displayed in a cartographic manner in the first draft map indicating the possible search-areas and those areas excluded from future farming activities (see example map below).

**Box 4 – Documents to be prepared for the consultation process**

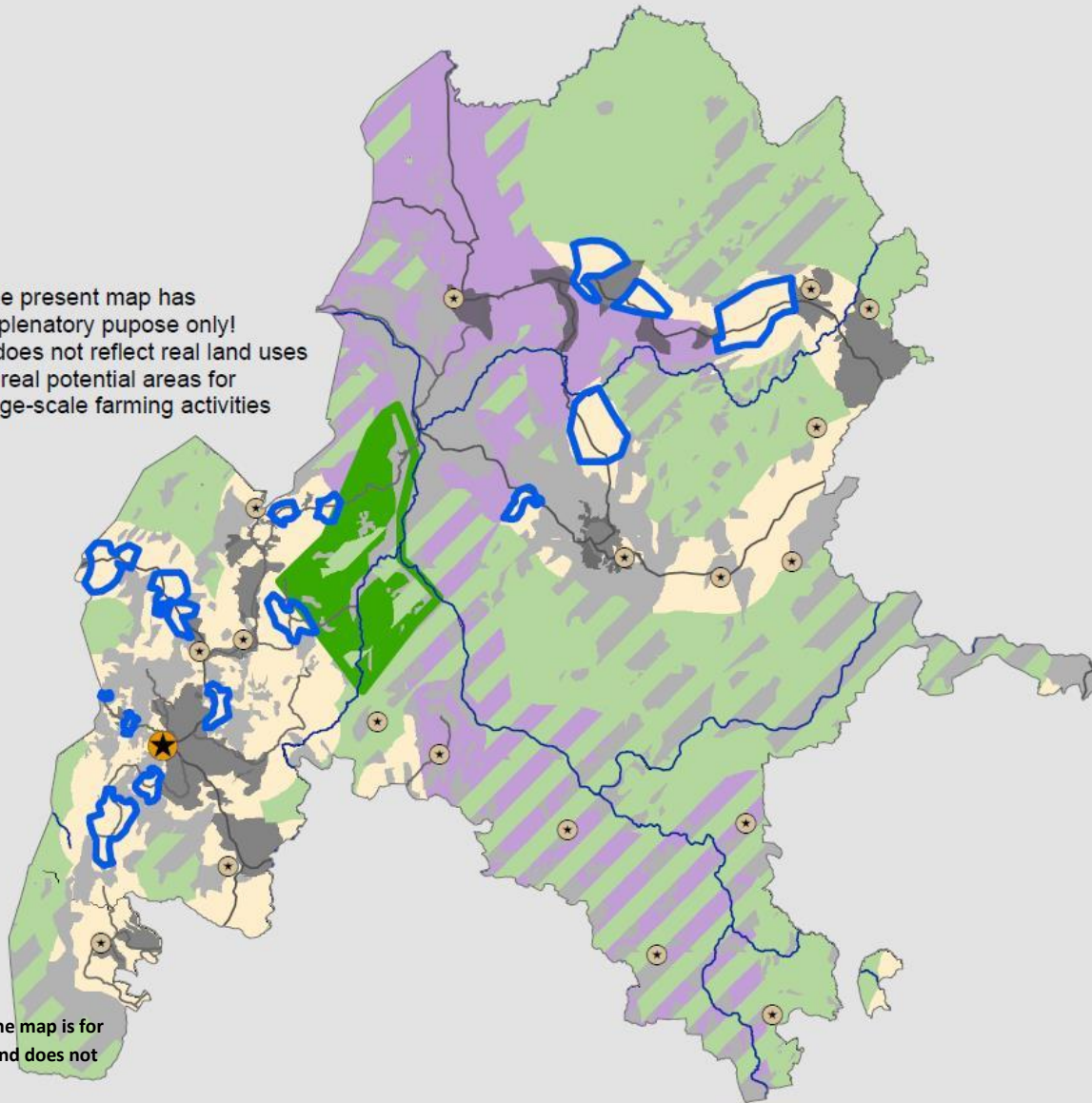
- Catalog of criteria to identify contrasting land uses
- Different explanatory maps indicating all criteria from the catalog
- Overview map of the potential search areas and the areas excluded from large-scale farming activities
- Explanatory report describing the different underlying assumptions to weigh the different land use demands as suggested in the plan
- Detailed maps displaying areas with contradicting possible land uses and the proposed future land use
- For each of the areas displayed in the detailed maps a written explanation of the reason to decide for large-scale farming or an alternative use.




### Schematic diagram of simplified weighting process



The present map has explanatory pupose only!  
It does not reflect real land uses  
or real potential areas for  
large-scale farming activities



**Sample map:  
Proposed search-areas for  
large-scale farming activities  
and areas excluded from  
farming activities**

-  alternative land use 1
-  alternative land use 2
-  alternative land use 3
-  alternative land use 4
-  alternative land use 5
-  alternative land use 6
-  area without restriction
-  proposed search-area for large-scale farming activities

Source: own illustration / the map is for  
explanatory purpose only and does not  
depict the real situation



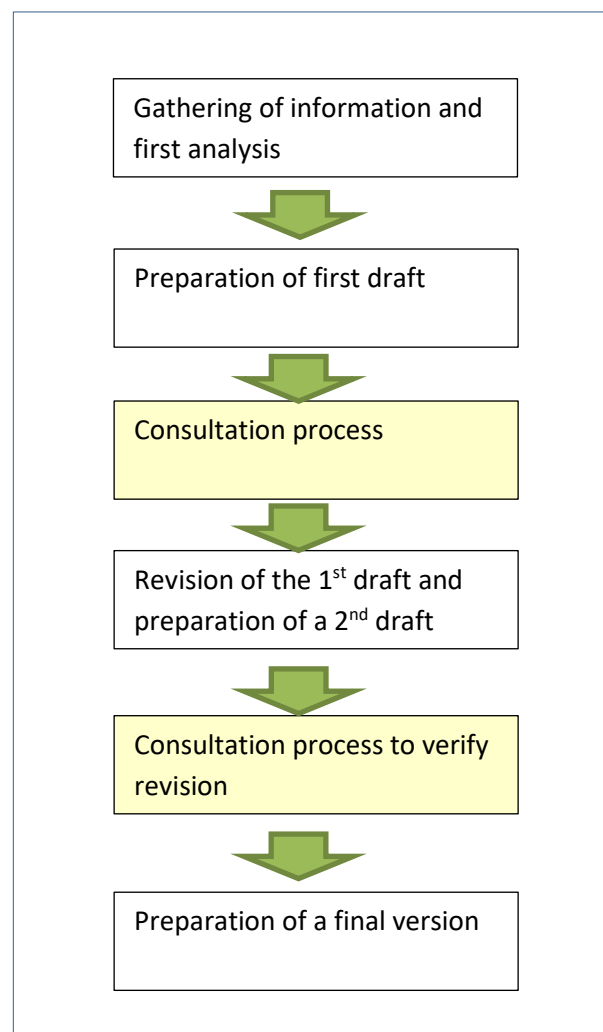
## Participatory consultation and coordination process

The previously mentioned first draft is a prerequisite for the consultation and coordination process. Based on the compiled planning documents, the different sector entities and civil society organizations are requested to review the correctness of the considered sectoral information and to submit written comments on the coverage of the proposed search-areas for large-scale farming activities. In this context, specific emphasis should be given to those areas with possibly conflicting land use demands and the proposed decision in favor of large-scale farming activities or the alternative land use.

Depending on the capacity of the different governmental organizations which are requested to comment on the first draft, it might also be necessary to organize an information workshop in the present planning phase.

The experiences from other planning processes with public involvement and a similar level of abstraction show that due to the distance of the topic to the daily live of citizens it is very challenging to involve the affected population. However, the decisions taken at this planning level will have a direct impact on the general living conditions of the rural population. Since the overall strategy of promoting the commercial farming sector aims at the development of hitherto unused land, it is foreseeable that possible land conflicts might arise. This in particular counts for very remote areas, where the population has even less capacity to understand and react to decisions taken at this planning level. Therefore, it is of immanent importance to identify nongovernmental organizations (e.g. environmental protection organizations or representatives of indigenous groups) and to enable them to analyze and comment the draft.

Parallel, the draft (and the following versions respectively the final version) has to be published and presented to the public. During the time period the different sector entities have the possibility to comment the draft also every citizen (or nongovernmental organization) has the right and the possibility to submit a written comment on the draft plan.



The major objective and outcome of the consultation process is to initiate a cross-sectoral dialogue in order to identify, anticipate and mitigate possible points of conflict. The different draft versions of the plan and the written documentation of the weighting process enable a systematic dialogue between the

sector agencies and the civil society. For that reason, a second consultation process (organized in the same way as the first one) takes place after the first draft has been revised on the base of the comments gained during the first consultation process in order to confirm the findings.

### Preparation of the final version and approval

Based on the results of the consultation process and by weighting of different land use demands while considering the general public interest a final version of a map is prepared that displays the search areas for large scale farming activities. At the same time all areas which are not identified as a search area are excluded from further large-scale farming activities.

The document is approved by the regional agency responsible for land administration and use (depending on the respective regional rural land administration and land use law, e.g. Bureau of Land Administration). The document is binding for all further activities regarding the land identification of the regional agency responsible for land administration.

Even though the document cannot be binding for other governmental sector entities further sector related planning activities should be streamlined (by providing the information) with the outcome of the above described planning process.

## Step 2: Identification of possible parcels for large-scale farming activities

The overall objective of step 2 is the delineation of parcels for large-scale farming activities and to coordinate the exact border of the proposed parcel with the neighboring residents. The underlying principles of the delineation process are:

- i) the commercial farming activities are subject to a prior consent given by the local population
- ii) the new agricultural activities do not endanger the possibility of the population to produce their means of subsistence.

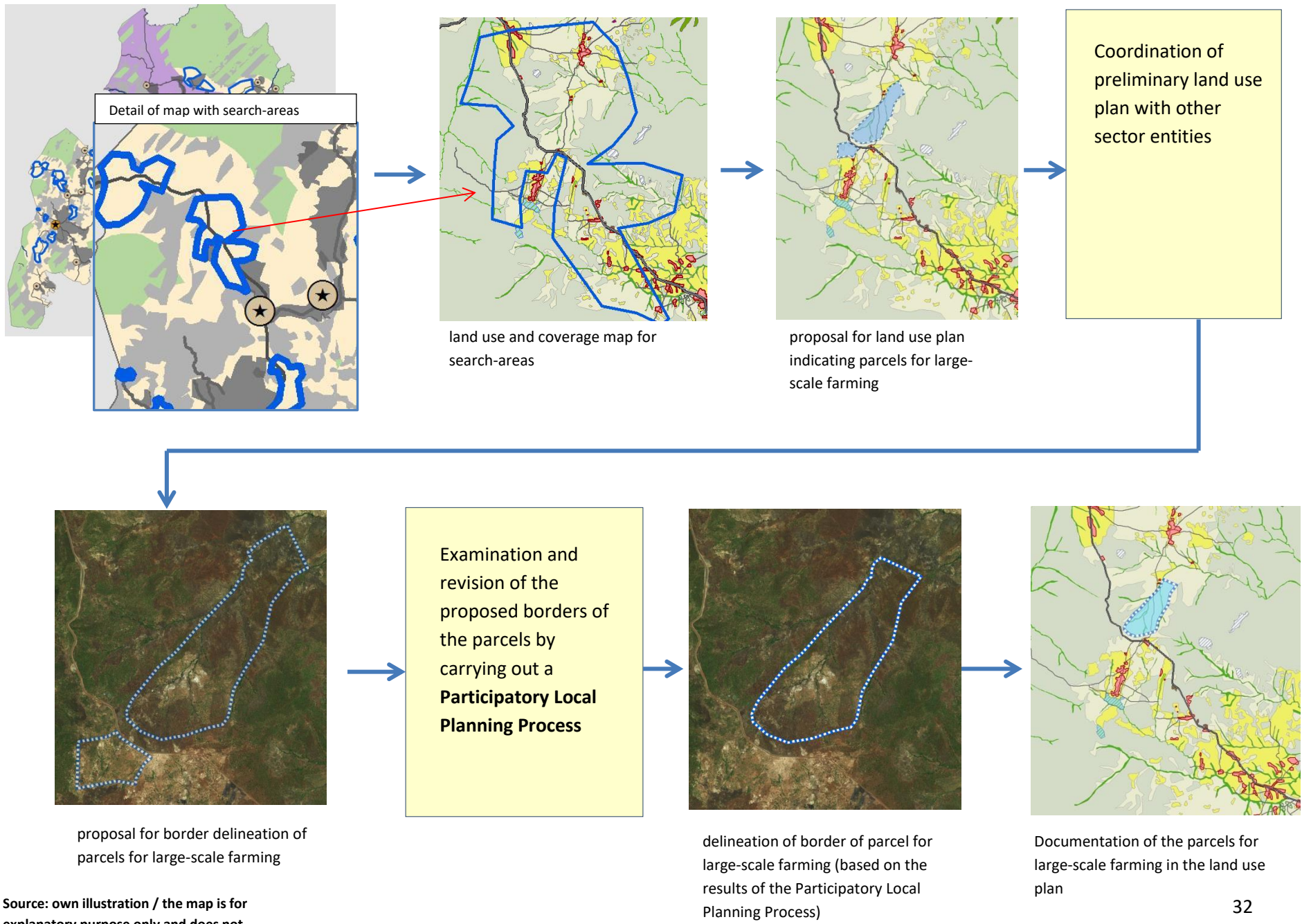
Consequently, the organization in charge of the planning process has to ensure that the implementation of large-scale farming activities follows the principle of a sustainable use of natural resources and that environmental impacts are minimized. Due to the importance of the protection of water resources in a drought-prone country like Ethiopia, special emphasis has to be given to water related issues.

The prerequisite to coordinate the future use of land for large-scale farming activities with other land uses is a sound knowledge of the current land use. Hence, the current land use has to be identified and mapped for the previous defined search-areas as a preparatory work. Based on the analysis and documentation of the existing land use, the organization in charge of the land identification process classifies the land within the search-area into possible large-scale farming areas and other land uses. In this manner it develops a first proposal for the delineation of the preliminary parcels (described in sub-point A.2.a / p.33). Afterwards the delineation of the proposal for parcels and the assessment of the other land uses are verified in coordination with all other relevant sector- administrations (sub-point A.2.b / p.38). In a subsequent step the preliminary parcels are examined and revised by carrying out a participatory local planning process and consensus with the affected population is reached on the final borders of the parcels (sub-point B.1.a /p.39).

Parallel to the participation process the sector administration on Woreda level prepares an *Environmental Feasibility Study* and a *Water Protection Study* for the proposed large-scale farming parcels (as described under A.2.c / p.38). Finally, in those cases where a consensus on the delineation of the parcels has been reached and the two feasibility studies deliver positive results, the final border is surveyed and registered.



**Schematic diagram of the delineation process**



Source: own illustration / the map is for explanatory purpose only and does not depict the real situation



***e) Classification of the area within the search-areas into farming areas and areas excluded from farming activities by preparing a sectoral land use plan***

In this stage of the process the organization in charge of the land identification classifies the land within the search areas into potential large scale-farming areas and into those areas that are not suitable for large-scale farming activities. The tool to document these classifications is the sectoral land use plan.

Even though there is certain overlapping between the sectoral land use plan focusing on agricultural issues described here and the Rural Land Use Plans (which is currently under development by an initiative of the Prime Minister office), both plans should not be confused. While the first one is a sector related plan that indicates those areas that could be used for large-scale farming activities (all other displayed land uses in terms of planning are indicative only), the second is an integrated plan that covers the entire territory of an administrative area and has binding character in respect to the possible land uses. However, once the Rural Land Use Plans become a mandatory instrument, both plans have to be streamlined. The identification process for large-scale farming parcels is designed in such way that coordination with the Rural Land Use Plan takes place under point A.1.b (p.20) and A.2.b (p.38).

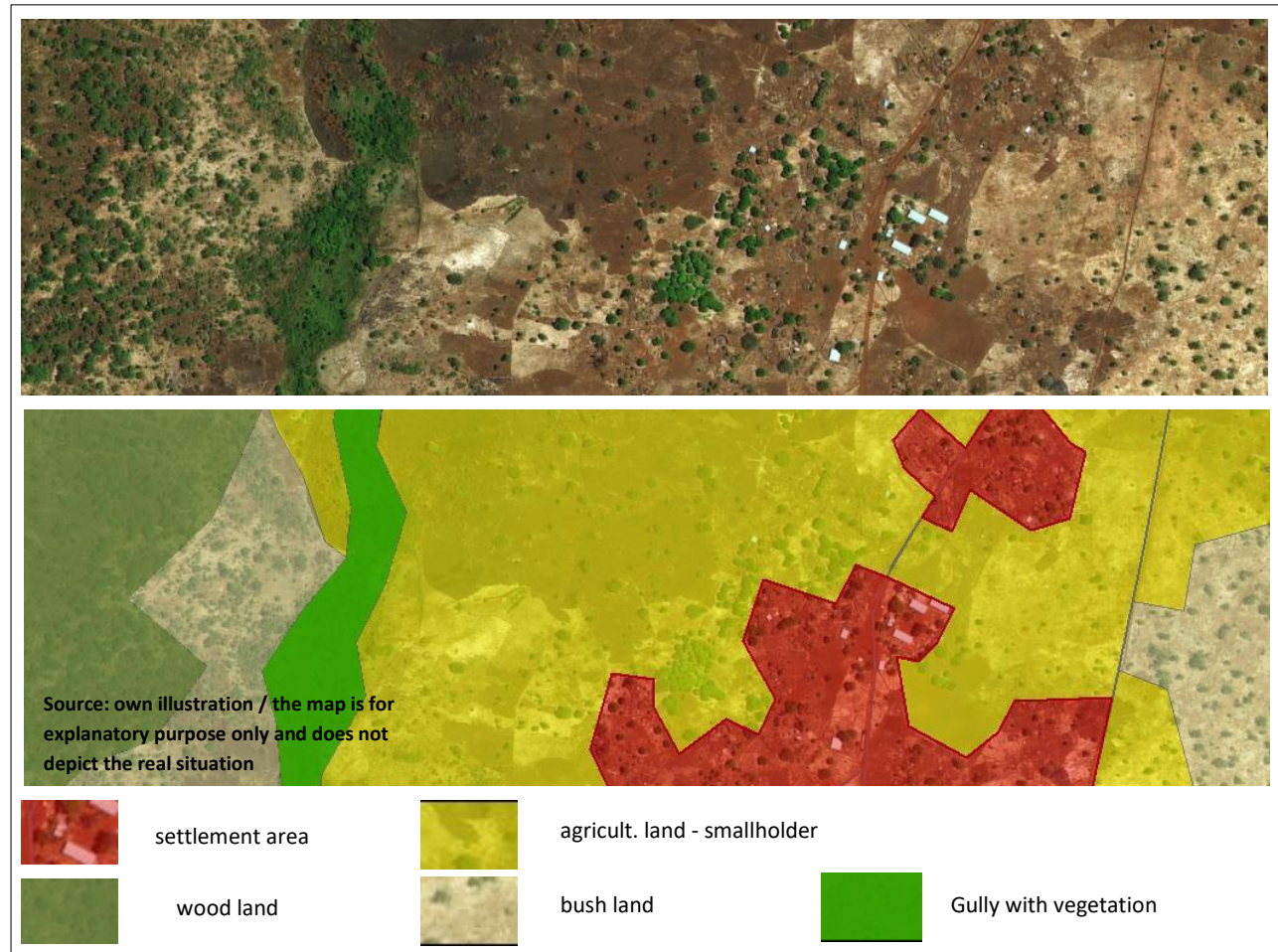
The classification of the land within the search area is organized in two sub-steps. Firstly, a land use and coverage map have to be compiled. Secondly, based on the analysis documented by the map proposals for possible large-scale farming parcels are developed and displayed in a proposal for the sectoral land use plan.

***Preparation of a land use and coverage map***

The goal of land use and coverage mapping is to create a sound data base for the following identification of potential large-scale farming parcels. The displayed preliminary catalog of criteria (see below) to categorize the different land uses is primarily based on the politically defined parameters about land uses that should be excluded from large-scale farming activities. However, it is not to be regarded as final. It offers an overview only and has to be adapted to the specific regional conditions. Thus, a first preparatory step is to revise and replenish the criteria in cooperation with the relevant stakeholders in the region.

Based on the review of satellite images, orthophotos, topographic or other existing maps and on-site information, the organization in charge of the land identification process produces a map displaying the current uses and the existing land coverage for those areas where no primary human activity takes place.

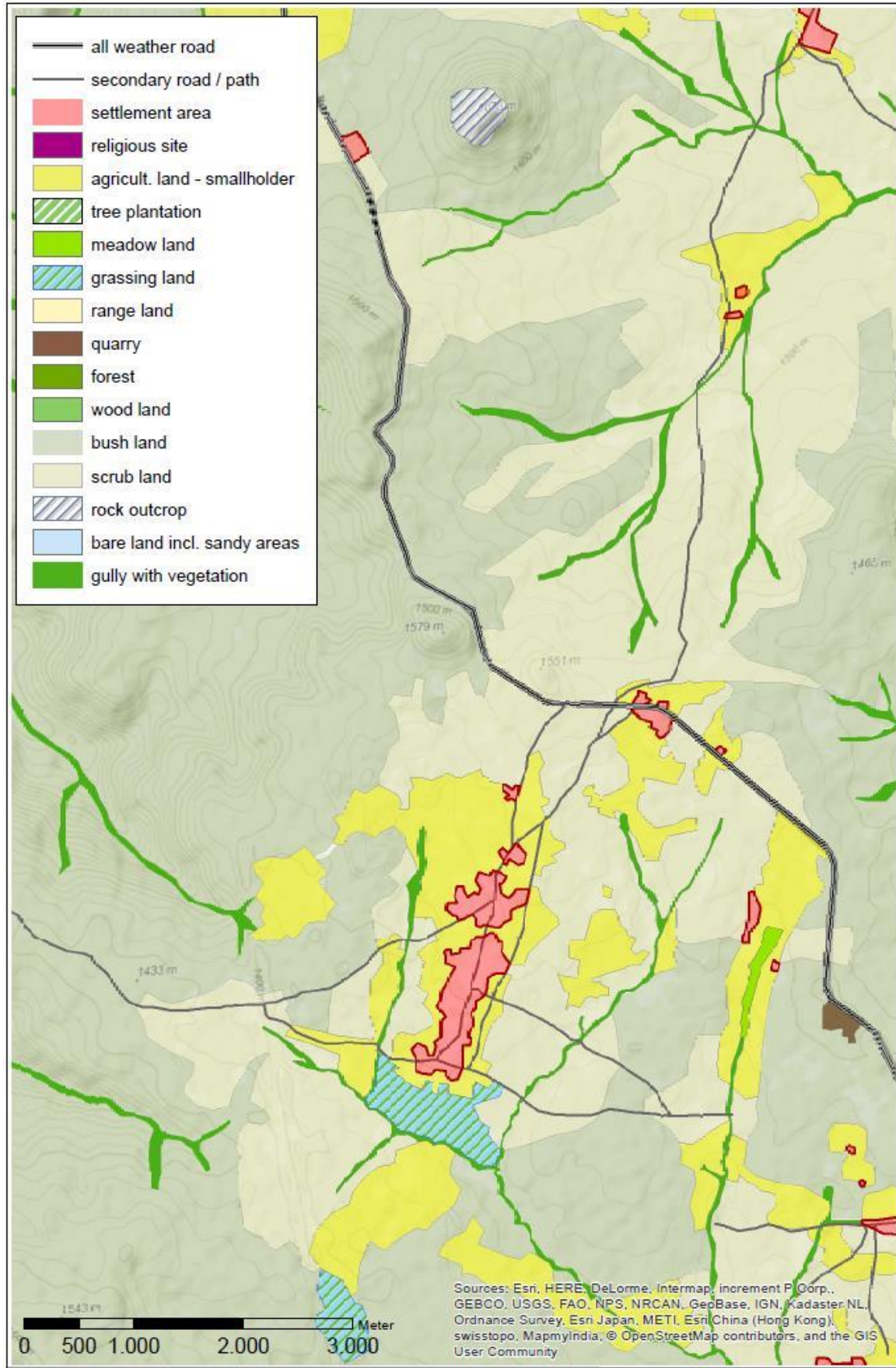
## Example for mapping existing land uses by analyzing a satellite image



### Proposed catalog of criteria to categorize the different land uses

- Settlement area
- Religious site (cultural sites or sites with special importance for the local community)
- Mining areas
- Infrastructure
- Agricultural land used by smallholders
- Agricultural land used by large-scale commercial farming
- Tree plantations
- Meadows
- Rangeland
- Forest
- Woodland
- Bushland
- Rocks and cliffs
- Bare land incl. sandy areas
- Gully with vegetation
- Waterbody

Example of a sectoral land use and coverage map



## Preparation of a sectoral land use plan

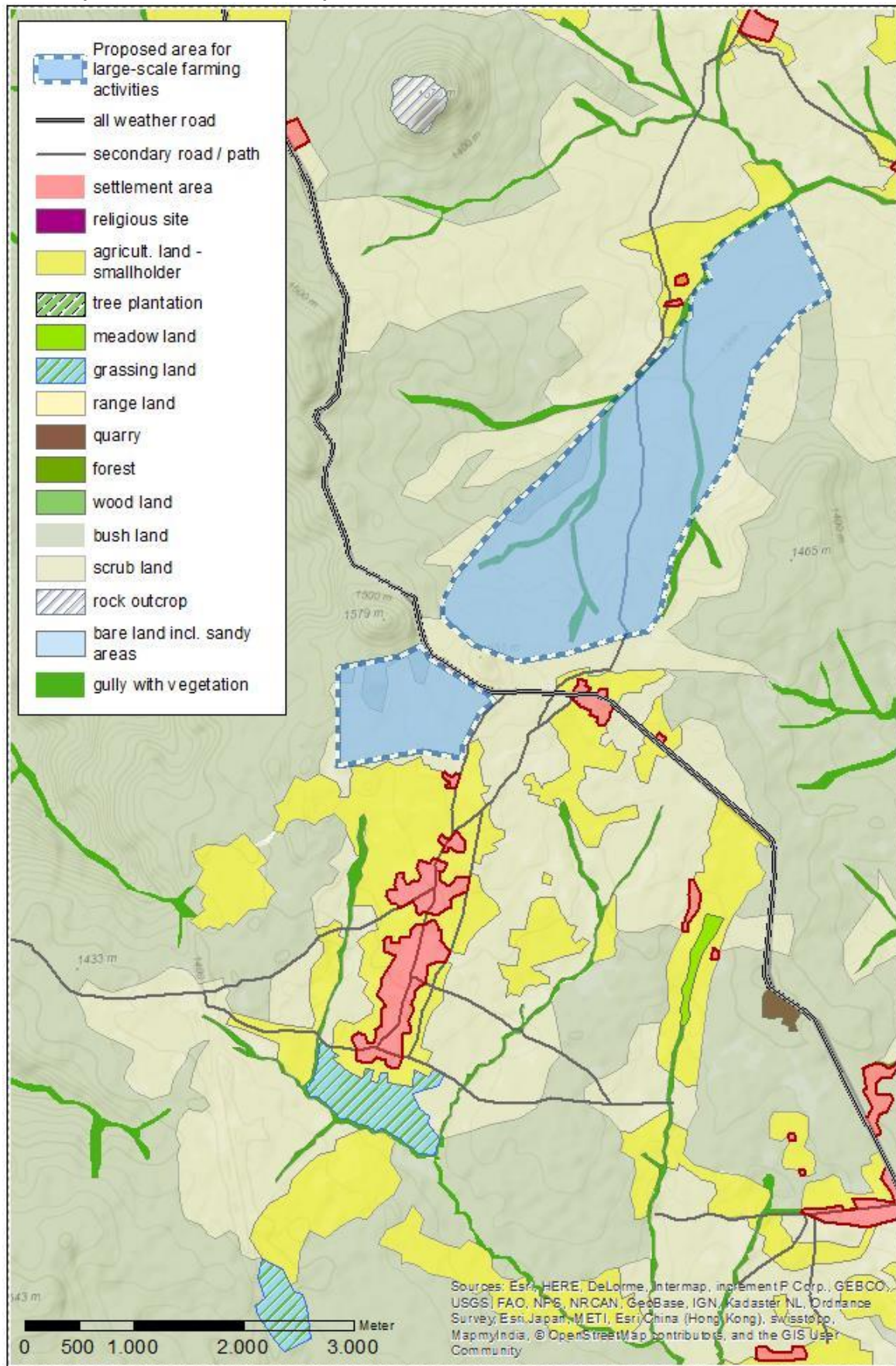
Based on the analysis of the current land use, the organization in charge of the land identification process identifies a first draft of the sectoral land use plan.

The sectoral land use plan illustrates the borders of the proposed parcels for large-scale farming activities. Additionally, and for information purpose only, it displays the land uses or coverages identified during the land use mapping process.

The identification of the proposed parcels is based on two main approaches. On the one hand identified parcels are located only in areas without another land use that might oppose large-scale farming activities (e.g. existing agricultural activities of the local population). On the other hand, it focuses on areas with a general agricultural potential. At the present planning stage, a rough assessment of the agricultural potential by reviewing satellite images is sufficient. However, once a potential area is identified the general suitability has to be verified by an on-site inspection. By carrying out an on-site inspection it is ensured that no areas are selected that are obviously unsuitable for large-scale farming activities. Nonetheless, a detailed analysis of the agricultural parameters is carried out at a later stage for confirmed and surveyed parcels only (see point B.2.a / p.45).



### Example of a sectoral land use plan



### ***f) Coordination of the preliminary sectoral land use map and plan with other public entities***

To avoid interferences between large-scale farming activities and other sectoral planning the proposed large-scale farming parcels have to be streamlined with other public entities in the region. In this context a special focus should be given to current integrated land use planning activities.

To coordinate the large-scale farming activities with other sectoral planning the preliminary sectoral land use plan is forwarded to relevant public stakeholders in the region and the different organizations are requested to submit written comments on the plan.

Depending on the capacity of the different governmental organizations which are requested to comment on the plan, it might also be necessary to organize an information workshop in the present planning phase.

### ***g) Environmental Feasibility Study (EFS) and Water Resource Protection Study (WRPS)***

Parallel to the participation process the two Woreda sector administrations in charge for environmental respectively water issues carry out an Environmental Feasibility Study (EFS) and the Water Resource Protection Study (WRPS) for each proposed large-scale farming parcel.

The two studies do not replace the Environmental Impact study (EIS) that has to be carried out at a later stage of the process by the Investor. They should guarantee at this stage of the process that no parcels are delineated that might have a significant negative impact on the sustainable use of natural resources. In case that one of the two studies comes to the conclusion that the conversion of the land into farmland would have a negative impact on the relevant natural resources, the further development of the project should be questioned and if necessary canceled.

To enable the Woreda administration to carry out the two studies, a check-list with possible negative impacts should be developed by the regional administration. The technical experts of the respective sector office on Woreda level have to make and on-site inspection of the proposed large-scale farming parcels and make an assessment based on such checklists. .

The aim of the ***Environmental Feasibility Study (EFS)*** is to guarantee that there are no significant negative impacts on the environment by using the land as farmland independently from the final manner and intensity of the agricultural production (e.g. destruction of important habitats, possible erosion due to the clearance of the vegetation cover or expected negative impacts on the micro-climate).

The ***Water Resource Protection Study (WRPS)*** assesses possible negative impacts on the surface water and the ground water (e.g. the capability of the area to regenerate ground water reservoirs). It also focusses on the accessibility of drinking water for the local population, i.e. for (humans and livestock).



## B. Verification

### Step 3: Verification of the delineation of parcels for large-scale farming activities

#### a) *Examination and Revision of the proposed parcels by carrying out a participatory local level planning process*

Once the possible parcels for large-scale farming are identified and the proposal is reviewed by the different sector agencies, the proposed border of the parcels have to be confirmed in a participatory planning process on local level.

The involvement of the population of the surrounding areas that will be influenced by possible future large-scale farming activities has two major objectives. First, the conversion into farming land can only take place if a consensus has been reached with the affected local population. In particular in regard of the overall objective to minimize future land use conflicts the question has to be answered whether commercialized farming is possible in the proposed area at all without unduly affecting the population. In the case that large-scale farming activities do not endanger the livelihood of the local community and it - in principle - agrees to the conversion of the land, a common agreement on the exact future borders has to be reached.



The second major objective of the participation process is to gain additional valuable information about the on-site situation by involving those persons with best knowledge of the location. In particular, against the background of the challenging task to analyze the current land uses with the limited available technical resources the participation process offers a good opportunity to verify the results of the previous steps of the land identification process.

Participatory local planning is a well-established and often practiced approach in Ethiopia. Notably, it has been used for example in the preparation of watershed plans or rural land use planning activities that mostly focusing on the maintenance and improvement of the productivity of smallholders farming

activities.<sup>3</sup> Also, the involvement of the *Kebele Land Administration Committee* in the activities for the identification of large-scale farming parcels (as described in the previous chapters) can be seen as a sort of participatory planning activity.

In Ethiopia, manifold experiences in participatory local planning approaches already exist. These experiences on the one hand can be used to organize land identification processes. Existing instruments can be largely used. On the other hand, it is also important not to overstrain the use of the participatory planning instrument. Therefore, the participatory process to confirm the large-scale farming parcels has to be linked to the other participatory planning activities going on in the respective Kebele and the process always has to be linked to tangible results for the local community.

The organization of the participatory local planning process for large-scale farming activities therefore depends on the existence of current planning activities in the respective area. In case other planning activities (e.g. watershed management planning or land use planning) are envisaged in the near future, the large-scale farming process should be organized as an additional session. Only if no other activities are going on in the respective area, the participation process is to be organized as an independent process. However, no matter whether the process is organized in one or the other way, it always aims at the structured identification of factors in favor or against large-scale farming activities and based on the results of the common analysis at a final decision on the border of the parcels confirmed by the local community.

### *Stakeholders identification*

It is a guiding principle of the land identification process that land should be converted into large-scale farming land only if the local population agrees to it. During the previous land identification activities, the local community was represented by the *Kebele Land Administration Committee*. However, the experience shows that not necessarily all population groups could be addressed with the hitherto used approach. Particularly in very remote areas, customary laws and rights are still existing and parts of the population (with respect to their livelihood) depend on structures that are not represented by the formal organization of the Kebele. In order to avoid future land conflicts, it is therefore necessary - in particular in areas with indigenous groups or pastoralists – to make further efforts to identify stakeholders and to find additional adequate ways of their involvement.

In accordance with FAO's FPIC-Process it is important to identify all relevant stakeholders in the targeted area before starting the planning process. The stakeholder identification and participatory local planning process for the present guidelines should be organized according the FAO's Governance of Tenure Technical Guide no.3 (RFPIC)<sup>4</sup>. The stakeholder identification process as proposed by RFPIC shows how local communities make use of the land, what kind of claims different groups may have on land and natural resources and who has the right to be consulted and to give or withhold consent.

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<sup>3</sup> cf. for example: Ministry of Agricultural Rural Land Administration and Use (RLAUD), Local level participatory land use planning manual, Addis Ababa, 2012

<sup>4</sup> Food and Agriculture Organization of the United Nations (FAO), Governance of Tenure Technical Guide No.3: Respecting free, prior and informed consent; Rome 2014

The proposed tools are interviews, consultations, focus group discussions and questionnaires.

### *Content of the planning process*

The first task of the planning process is to create a common understanding between the administration and the local population about the different land demands that might be in conflict or in favor to the future large-scale farming activity by mapping the current and possible future land uses. To enable a common understanding regarding the location of the land in question, as a preparatory work an aerial picture is provided that indicates the exact borders of the proposed parcels for large-scale farming . Second, based on the common analysis and documentation, the different possibilities to avoid negative impacts has to be discussed (e.g. by changing the border or by defining certain use restrictions and rights on the future farm land).

Finally, the local community has to agree on the defined boarders or reject the large-scale farming parcel completely.

During the mapping process it should be focused in particular on land uses as listed in the box below. However, the displayed catalog of land uses is meant as guideline to facilitate the discussion with the participants and can be replenished if necessary.

Input to the participatory local planning process:

#### **High resolution aerial picture indicating the proposed parcel for large-scale farming.**

It is important, that the aerial picture is prepared in a scale that shows easy recognizable land marks like houses or dominant trees in order to also enable those participants to understand the process that are not so familiar with reading maps. If necessary, the aerial picture has to be “translated” by the facilitator into a more schematic depiction.

### **Catalog of land uses that should be addressed during the participation process**

- Areas used for small-holder agriculture
- Future extension areas for small-holder agriculture (taking the population growth of Ethiopia into consideration)
- Future areas needed for shifting cultivation
- Future extension areas for settlement
- Areas used for grazing (large scale areas for pastoralists and small-scale areas for the livestock of sedentary farming population)
- Areas used for supplementary economic activities of the community (e.g. honey or fire wood collecting)
- Areas designated to reforestation
- Areas endangered for flooding
- Areas with high ecologic value or important for the protection of water resources
- Areas with the potential for exploitation of natural resources (e.g. sand, clay, gravel)
- Traditionally used rights of ways (e.g. way from settlement to water places, way from settlement to grazing places, routes between different grazing places of pastoralists)
- Relevant water resources for humans and livestock
- Cultural important sites
- Etc.

### ***Outcome of the planning process***

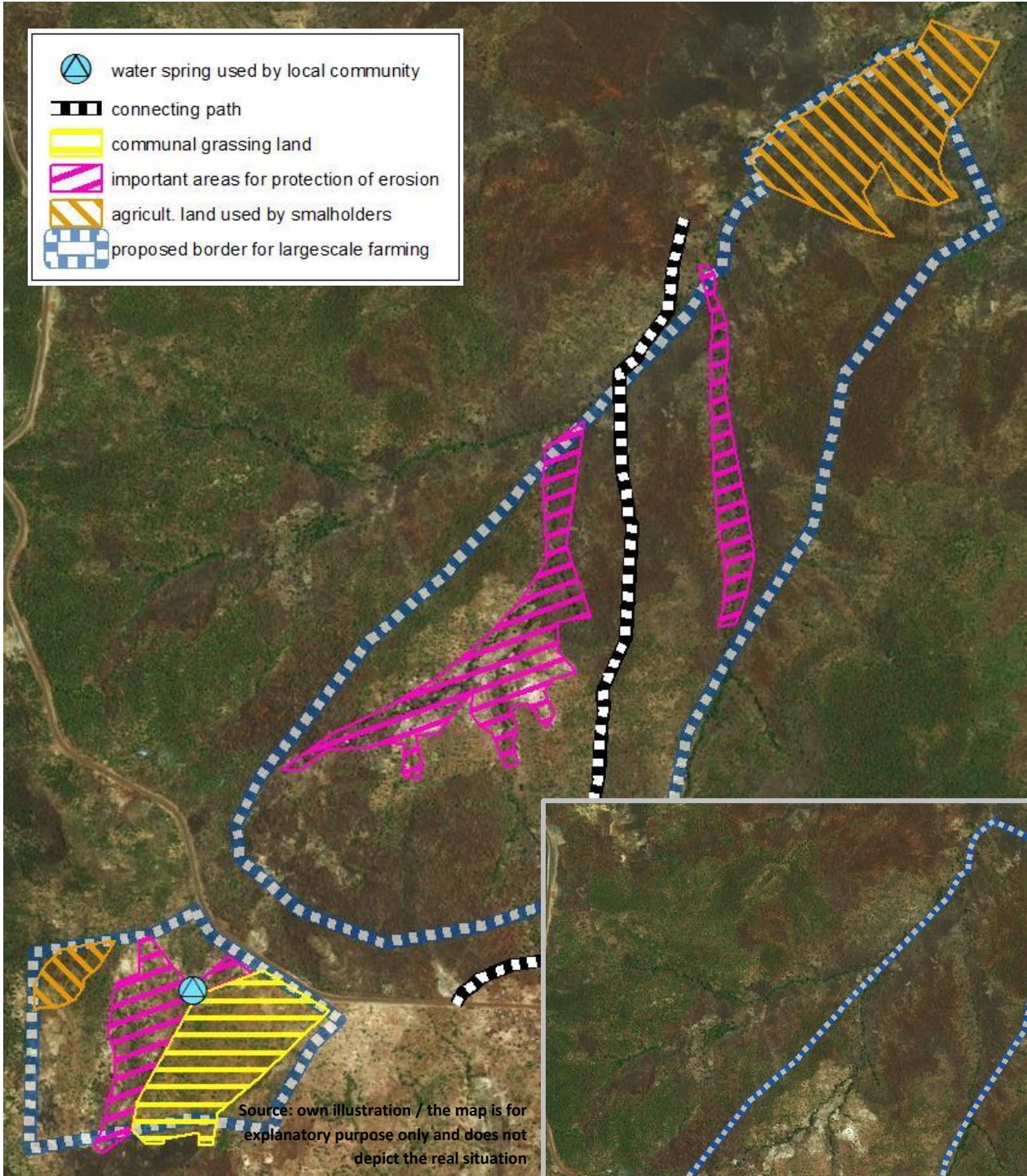
As major outcome of the participatory planning process all involved parties (local community and administration) agree on or reject the general compatibility of large-scale farming activities in the respective area. In case the general compatibility is affirmed, conjointly the borders of the proposed parcels for large-scale farming activities are revised and if the necessity arises newly delineated.

As major output of the planning process the results are documented (as e.g. in the sample illustration below) and a new map about the delineated borders of the parcels (based on a high resolution aerial picture) is prepared by the administration in charge of the identification process.

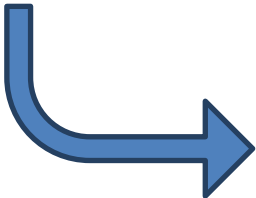
In a subsequent working step (as described below at B.1.d / p.44) the outcome of the planning process has to be confirmed by the local community and legitimated by a representative body (*Kebele Land Administration Committee*) and the responsible authority.



Sample illustration of the results of the Participatory Local Planning Process



Adaptation of the border of the large-scale farming area according to the results of the Participatory Local Planning Process



### ***b) Survey and registration of the final parcel***

Once the borders of the parcels for large-scale farming activities are delineated in the participatory local planning process the exact border has to be surveyed according to the regional legal requirements.

After the legitimation (see below B.1.d /p. 44) the parcels are registered in the cadaster.

### ***c) Preparation of the final sectoral land use plan***

Based on the results of the revision of the proposed parcels in the participatory local planning process, the preparatory sectoral land use plan has to be adapted to the new borders.

### ***d) Legitimation of the final version***

The final legitimation of the borders of the parcels for large-scale farming activities is three-folded: The results of the participatory planning process has i) to be presented to and confirmed by the local community, ii) legitimized by legal representatives of the local population and iii) approved by the regional authority in charge of legal land administration.

- i) The results of the participatory planning process are presented in a separated additional session to the local community. The aerial pictures with the revised borders of the large-scale farming parcels are displayed in the respective Kebele administration for four weeks. During the four-week period the public has the opportunity to comment the planned borders. If no further comments are submitted the borders are confirmed by the local community.
- ii) The Kebele Land Administration Committee confirms by signature the correctness of the borders and the participation process.
- iii) The Bureau Head of the responsible regional land administration authority approves the borders of the large-scale farming parcels.

## Step 4: Parcel specific assessment and documentation of relevant land use information and restrictions

### e) *Detailed survey of the agricultural potential and development of a (agricultural) land use proposal (land verification)*

Once suitable parcels for agricultural investment projects have been identified as spatial entities, the site-specific parameters have to be surveyed and analyzed in order to determine the suitability of the parcels for specific cash crops.

The following parameters that describe the land quality of the parcels are relevant:

#### Relevant parameters to describe the land quality:

- Climate / Temperature
  - Average
  - Maxima
  - Minima
  - Temperature curves (day / night; seasonal)
- Precipitation
  - Amount
  - Distribution
  - Intensity
- Air humidity
- Radiation
- Occurrence of climate hazards (e.g. wind, hail, frost)
- Occurrence of natural hazards (floods, fire, storms)
- Soil properties
  - soil class
  - soil depth
  - Physical properties (e.g.)
    - so
    - texture
    - Soil temperature
    - Infiltration rate
    - Hydraulic conductivity
  - Chemical properties (e.g.)
    - Organic matter
    - PH
    - Nutrient availability
    - Salinity
    - heavy metals
- General land characteristics
  - Topography
  - Vegetation cover
  - Altitude
  - Ground water / surface water availability



Required data has to be collected or surveyed in case the data is not available. The site-analysis should include a soil survey including sample taking and analysis in order to determine the soil quality of the respective parcels. In case laboratory analysis of soil samples is not an option, soil properties can be determined by alternative methods that orientate on the physical properties such as texture and color of the soil to determine soil properties such as water absorption capacity, infiltration rate and drainage as well as nutrient contents and occurrence of heavy metals.

The following institutions can provide valuable data:

- National Meteorology (climate data)
- Ethiopian mapping Agency (satellite imageries)
- Ministry of Water, Irrigation and Electricity
- Ministry of Agriculture
- Regional Bureaus
- National Soil Laboratory

Once all required data on site-specific parameters is collected and/or surveyed the data has to be compared to the specific demand of the relevant crops. Respective tables showing the crop requirements regarding temperature, nutrients, soil-characteristics, air humidity, water and radiation can be found in Annex X.

In the case that necessary data can only partly be generated by collecting existing data or surveying data in the field, existing crop cultivation and cropping systems in the neighboring areas can be used as indicator for suitability of certain crops and should be considered in the field survey.

For accountability reasons, the procedure of determining suitable crops for the respective parcels in question should be well described and documented.

### ***f) Identification of (non-agricultural related) land use restrictions***

Due to fact that the majority of the identified parcels for large-scale farming activities are located in areas hitherto not used for agricultural purpose and due to the size of the parcels it is often necessary to define areas within the parcels that are excluded from farming activities. Areas should be excluded from farming activities i) for protection reasons (e.g. environmental or water related issues) and ii) because there are existing land uses of the local community that should be possible as well in the future (e.g. public rights of way).

The information about necessary land use restrictions is already collected during the previous land use mapping process and the participatory local planning process. The objective of the current planning step is to map the land use restrictions for each specific parcel (see sample map below) and establish the restrictions as a legally binding part of the parcel-profile-sheet.



*g) Preparation of a parcel-profile-sheet and map*

As a final step of the land identification and verification process the results for each parcel have to be documented in standardized parcel-profile as can be found in Annex X.

The parcel-profile consists of:

- Parcel-profile-sheet that indicates
  - basic data, like location (Kebele / geographic coordinates of the survey marks)
  - parameters to describe the land quality
  - proposal for suitable crops
  - description of the land use restrictions
- Aerial picture of the parcel indicating the exact borders of the parcel
- Land use restriction map

#### IV. Overview on outputs and major documents prepared during the process

<b>LAND IDENTIFICATION</b>	<b>Step 1: Identification of potential search areas on regional level</b>	
	<b>Main documents</b>	Map indicating the search areas (proposed scale 1:250,000)
		Documentation of the weighting process
	<b>Preparatory documents:</b>	Map indicating zones with high agricultural potential (proposed scale 1:250,000)
		Maps about sectoral land use demands (proposed scale 1:250,000)
		Documentation of the assessment of the socio-economic suitability
		First draft on proposal to weight the different land use demands (proposed scale 1:250,000)
		Second draft on proposal to weight the different land use demands (proposed scale 1:250,000)
	<b>Main activity with external impact:</b>	Coordinating and balancing the different land use demands with other sector agencies (if necessary organization of an information workshop)
	<b>Step 2: Identification of possible parcels for large-scale farming activities</b>	
	<b>Main documents:</b>	Preliminary sectoral land use plans for each search area (proposed scale 1:20,000)
		Individual maps for each identified parcel indicating the proposed delineated borders (proposed scale 1:5,000)
		Documentation of the weighting process
<b>Preparatory documents:</b>	Sectoral land use maps for each search area (proposed scale 1:20,000)	
	Environmental Feasibility Study and Water Resource Protection Study for each proposed parcel	
<b>Main activity with external impact:</b>	Coordinating and balancing the different land use demands with other sector agencies in each affected Woreda	
	(if necessary organization of an information workshop)	
<b>LAND VERIFICATION</b>	<b>Step 3: Verification of the delineation of parcels for large-scale farming activities</b>	
	<b>Main documents</b>	Individual maps for each identified parcel indicating the agreed delineated borders (proposed scale 1:5,000)
		Confirmed sectoral land use plans for each search area (proposed scale 1:20,000)
	<b>Preparatory documents:</b>	Documentation of each participatory local planning process
		For each participatory local planning process, a map indicating the results of the process (proposed scale 1:5,000)
	<b>Main activity with external impact:</b>	Participatory local planning process in each Kebele located in search area (or if necessary subdivisions of the Kebele)
	<b>Step 4: Parcel specific assessment and documentation of relevant land use information and restrictions</b>	
	<b>Main documents:</b>	Parcel-profile
	<b>Preparatory documents:</b>	Documentation of the agricultural suitability analysis for each parcel
		Land use restriction map (proposed scale 1:5,000)
<b>Main activity with external impact:</b>	-/-	



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