PARTICIPATORY MAPPING AS A TOOL AND APPROACH TO DEFINE TRADITIONAL USER RIGHTS OF FOREST LAND

BOŽENA LIPEJ¹, JANAQ MALE²
¹Evro-PF, Slovenia
bozena.lipej@gmail.com
²CNVP, Albania
janaq.male@cnvp-eu.org

Paper prepared for presentation at the “2017 WORLD BANK CONFERENCE ON LAND AND POVERTY”

Copyright 2017 by author(s). All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.
Abstract
We have been witnessing the rapid development of participatory mapping initiatives for many years, especially in developing but also in developed countries. Participatory approaches to forestry have been evolving in many parts of the world, but very few of them in Europe.

The forestry sector in Albania holds great potential to support national economic growth. Challenges remain with the registration of public forests transferred from the state to newly established municipalities in 2016. Traditional users are managing these transferred lands – mainly to satisfy their basic needs. These are customary rights, generally well-respected, but they are not yet formalized.

The Environmental Services Project supports the registration of forest and pasture lands transferred to municipalities, and the FLED project aims to improve decentralized and sustainable communal forestry. The process of establishing user rights is ongoing, using the participatory mapping approach. The following main actions are taken: participation of the community in the whole process; demarcation of forest users parcels; creating digital maps and field forms; using up-to-date technology (GNSS, GIS); and ensuring council authorization of the mayor to sign an agreement with traditional users. The opportunities for wider use of the approach require greater support and various activities to be taken.

Key Words: first registration, land use rights, participatory mapping, public forests and pastures
Introduction

Information on land, land rights and natural resources is of vital importance for every country, its economy and economic growth, sustainable development, poverty alleviation and social welfare. Forests represent an important widespread area across the globe, and are fundamental for many people who depend on them because of their economic, environmental and biodiversity values. Real estate management and land administration play an important role in every aspect of society, the economy and the preservation of the environment. Security of tenure is essential for effective urban, rural and forestry development and the implementation of national, local and sector policies.

Over the last few decades, especially in developing countries, participatory mapping of customary land use has proven to be an effective method and technique to empower indigenous people in claiming access rights to natural resources. The number of participatory mapping initiatives is increasing in many parts of the world. Good practices have been piloted and implemented in natural resource management, in particular in forestry, watersheds, irrigation and biodiversity. Participatory maps are also used to identify tenure and rights, determine boundaries, and agree on resource uses, resolve conflicts and in other areas where it is reasonable to map the content by communities. Decisions about resource tenure are some of the most critical ones for forests and livelihoods in many contexts and secure tenure arrangements are an important prerequisite for achieving sustainable forest management (Lipej, Male, 2015).

Participatory Mapping from Principles to Implementation

We have been witnessing the rapid development of participatory mapping initiatives for many years, especially in developing but also in developed countries. Participatory mapping has been used, for example, in Latin American indigenous communities’ relationships to and use of lands, since the 1990s (Teague, H, Long, L. T. 2011).

Participatory mapping is, in its broadest sense, the creation of maps by local communities – often with the involvement of supporting organizations including governments (at various levels), non-governmental organizations, universities and other actors engaged in development and land-related planning (IFAD, 2009). Participatory mapping is multidisciplinary. This makes it significantly different from traditional cartography and map-making, is the process by which the maps are created and the uses to which they are subsequently put. Participatory mapping involves the creation of visual maps by local communities documenting the key features of their local environment from their perspective (FAO,
The overall principle of any participatory mapping activity is that authority and control over decision-making are turned over to the community so they can direct the map-making process and the map’s use. It is also known as participatory mapping, community mapping or indigenous mapping. Participatory mapping focuses on providing the skills and expertise for community members to create the maps themselves, to represent the spatial knowledge of community members and to ensure that such members determine the ownership of the maps and how and to whom to communicate the information the maps provide (IFAD, 2009). This process can contribute to building community cohesion, help stimulate community members to engage in land-related decision-making, raise awareness about pressing land-related issues and ultimately contribute to empowering local communities and their members.

There are various reasons to use participatory mapping (FAO, 2013), such as to:

- Help communities articulate and communicate spatial information to external agencies;
- Allow communities to record and archive local knowledge;
- Assist communities in land-use planning and resource management;
- Enable communities to advocate for change;
- Increase the capacity within communities; and
- Address natural resource-related conflicts.

Participatory mapping uses a range of tools including data collection tools. Recently participatory mapping initiatives have begun to use more technically advanced geographic information technologies including Global Positioning Systems (GPS), aerial photographs and remote-sensing images, Geographic Information Systems (GIS) and other digital computer-based technologies. Participatory mapping can take several forms including the use of crowdsourcing to gather information about an event or a place. The mapping process can range from low-cost, low-resource input activities using paper and pen to more high-tech, high-input processes involving GIS systems that are more expensive and require technical skills and time from the resource team (FAO, 2013).

There are six key stages in participatory mapping (FAO, 2013):

- engaging with the community to prepare for mapping;
- determining the purpose of the map(s);
- collecting information;
- creating the map;
- analyzing and evaluating the information; and
- using and communicating the information.

The mapping process must be facilitated carefully and sensitively to ensure the full participation of all stakeholders as well as appropriate use of the information generated.

**Participatory Mapping in support of Natural Resource and Forest Management**

There is an increasing consensus about the need to find an approach to resource management that encourages environmentally friendly economic development by treating economic growth and environmental management protection as a continuum that crosses the boundaries of various scientific disciplines (Lal, P. et al., 2001). Natural resources such as minerals, forests, water, land and vegetation can be used for economic gain and affect the quality of life of populations. There are several leverages that refer to the management of natural resources and support the future well-being of the resources. Participatory mapping is one of them. It helps in raising the local communities’ awareness of their rights to natural resource use, and their awareness of the importance of these resources.

Participatory mapping has emerged as a process and a powerful tool, utilizing visual techniques to better understand local natural resources, together with their management, dynamics and related challenges, and with potential solutions to the challenges. It is a relatively fast way of gaining information from those who live with and use these resources. Although there are differences among the initiatives in their methods, applications and users, the common theme linking them is that the process of map-making is undertaken by a group of non-experts who are associated with each other based on a shared interest (Lipej, Male, 2015). The process of creating a map and the resulting map itself attempt to make visible the links between land, natural resources and local communities.

Decisions about resource tenure – or who can use which resources of the land for how long, and in what conditions – are among the most critical for forests and livelihoods in many contexts (FAO, 2013). Tenure over forests is about access and rights to use or withdraw forest resources; to make decisions about use patterns or transformation; to decide who is entitled to use the resources and who is prevented from using them; and to transfer, sell or lease the resources. A change in forest tenure leads to changes in the distribution of rights among different stakeholders. Thus, as tenure systems increasingly
face stress, with growing populations requiring food security and environmental degradation and climate change reducing the availability of land and forests, the governance of tenure is becoming ever more crucial in determining whether and how people are able to acquire rights to use and control these lands and forests, along with the associated responsibilities.

It is now widely recognized that secure tenure arrangements are an important prerequisite for achieving sustainable forest management – although not the only one. Tenure of forest, land and carbon has also become an important issue in efforts to reduce emissions from deforestation and forest degradation (FAO, 2011). Globally, state ownership and management dominates forest tenure, but transitions are under way. A more diversified tenure system could provide a basis for improving forest management and local livelihoods, particularly where the state has weak capacities for managing forests. In recent years, privatization of national forests has become an increasingly common type of tenure reform, particularly in countries where large-scale appropriations of forests occurred in association with political events. In Eastern Europe, current reforms frequently have two aspects: restitution and privatization. Restitution and privatization have resulted in the establishment of a large number of small holdings in many countries, which has been exacerbated by the division of holdings through inheritance. The large number of forest owners presents a challenge for efficient forest management, including access to markets. Participatory approaches to forestry have been evolving in many parts of the world, but very few of them in Europe.

Community forestry is often used as a generic term to cover a variety of participatory approaches, such as participatory forest management, community-based forest management and joint forest management (FAO, 2011). All of these have specific meanings in specific contexts and there is no overall agreement on the differing connotations of each term. Community forestry programmes and initiatives are generally promoted and discussed in the language of a devolution and forest policy reform. The degree to which access, usufruct and/or management rights are devolved to communities varies widely. In many cases, communities already use or manage forest resources according to traditional systems, and tenure reform consists of the formal recognition of existing informal rights. The success or failure of community forestry programmes depends on many factors beyond tenure rights. Communities often receive ownership or management rights or low-quality or degraded forests, which require large investments of resources and time to make them profitable, although they sometimes provide important safety net functions for the rural poor.
Recognizing and securing the tenure rights of forest-dependent people, including indigenous peoples, is fundamental for securing livelihoods in forest communities. Improved governance (e.g. effective law enforcement, reduced corruption and greater transparency) can promote sustainable forest management and reduce unauthorized activities (FAO, 2012).

**Decentralization of Forest Fund in Albania**

Albania has a total surface area of 2.9 million hectares, 52 percent (1.5 million hectares) of which is forest, 17 percent (0.48 million hectares) of which is pasture, and 3 percent (87,000 hectares) of which is cropland.

The forestry sector in Albania holds great potential to support national economic growth, rural employment, industrial development and environment preservation. Traditional users are managing these transferred lands – mainly to satisfy their basic fuel wood and fodder needs. These are customary rights, generally well-respected, especially in the mountainous areas, but they are not yet formalized. One of the main objectives of the forest sector strategy is to support the process of transferring state-owned forests and pastures to municipalities, and to strengthen the relationship between the users and owners of these resources through the registration and formalization of users’ rights, and by consequently increasing the monetary and non-monetary benefits to rural households (World Bank, 2014b).

In the context of the Albanian Government’s decentralizing policies, around 60% of the forest and pasture fund was transferred to the ownership of local government units/communes in 2008. As part of the latest territorial and administrative reform, a new Law on Local Governments entered into force in January 2016, and new structures were introduced in the 61 municipalities (reduced from the previous 373 local government units). The 2005 Forest Law, which was amended in May 2016, transfers the responsibility for managing forests to the 61 new municipalities, and mandates the municipalities to establish the management capacity. Thus, the Government has decentralized forestry management to municipalities and recognized it as a key self-function alongside with fire protection and irrigation management. The same for pastures with the amended Pasture Law in 2016.

In June 2016, new Decisions of the Council of Ministers were approved. These decisions support the transfer of the remaining state owned high forest (about 20%, excluding forest that falls within nationally protected areas, which will continue to be managed by the central government – National Agency for Protected Areas - NAPA) to the 61 municipalities, and amend the process of officially
changing the land use or destination of the forest area, i.e. from forest or pasture to some other land use such as mining, hydro power etc. This will be added to the already transferred forest and pastures lands (60%) to former communes within 2008. Since 2015, protected areas have been managed by the NAPA and its 12 regional agencies for protected areas. The estimation is that currently about 16% (other sources: 16,5 %) of forests are protected. The existing data on protected areas are classified in six main categories (according to the IUCN - International Union for Conservation of Nature classification of protected areas categories): strict nature reserve, wilderness area, national park, natural monument or forest, habitat/species management area, protected landscape/seascape, protected area with sustainable use of natural resources. About 3% of forests are private (Lipej, B., 2012-2017).

Municipal/public forests and pastures have a distinctive feature of their management, in that they encompass many actors at various levels, from local to national. Local people are organized in Forest and Pastures Users’ Associations (FPUAs) involved in the direct management and use of the forests and pastures. The FPUAs and users are organized and represented further at regional and national levels in (Communal) Forests and Pastures Federations. Currently, it remains challenging to recognize the traditional users and their associations, execute registration of all forest and pasture land, reach the strengthened and financial sustainability of the FPUAs and the integration of forestry in rural development with financial support schemes (CNVP, 2016).

The first registration of forests and pastures in the country is behind schedule and was not supported in the past. The majority of forests and pastures is not registered (in more than 2,000 cadastral zones of the registration system of the Immovable Property Registry Office– IPRO, forests and pastures were not registered in the mass registration projects in the period 1994-2002). However, forests and pastures were registered in more recent projects, as well as in the World Bank supported Land Administration and Management Project (World Bank, 2007, 2014a). Since 2015, the World Bank and Global Environment Facility Trust Fund financed Environmental Services Project supports the first registration of forest and pasture lands transferred to municipalities mainly based on new digital orthophotos and largely outdated forestry maps (World Bank, 2014b). In parallel, additional donor support to Albania is delivered by the Swedish cooperation through the Swedish International Development Cooperation Agency (Sida), and implemented by the CNVP (Connecting Natural Values and People) in the four-year (originally planned 2014-2018, already extended) FLED (Forests for Local Economic Development) project. The FLED project builds on earlier efforts and investments to increase the capacity of local civil society organizations and local government units (LGUs) in particular,
strengthening cooperation between stakeholders for sustainable forest and pasture management. The project aims to improve decentralized and sustainable communal forestry, providing increased production, service and income to rural communities, and to serve in support of more inclusive local economic development. One of the specific focus areas is on land tenure and property rights for communal forestry. Besides the first registration of forests in 24 former communes in 15 new municipalities, the process of establishing user rights in these areas is ongoing, using the participatory mapping approach (CNVP, 2016). The methodology on user rights establishment used in the FLED project was successfully piloted and put into practice in the previous Sida project in Albania and in another Dutch-supported project in Macedonia, both carried out by the CNVP.

**Participatory Mapping of Forest and Pasture Use Rights in Albania**

The registration of forest and pasture properties shall take account of the provisions of the amended Law on Immovable Property Registration (Law, 2012) based on the kartela (textual data) and cadastral map. Once the process of registration of municipal forests and pastures in the IPRO central database of real estate is completed, the identification of users and reaching an agreement between the municipalities and traditional users could take place using the process of participatory mapping.

The objective of participatory mapping is to let villagers interpret their forest and pasture lands in maps. In this process, villagers together determine their forest and pasture land use, as well as the goals and strategies of management through a participatory process. Involving members of the local community with their knowledge and experience improves the accuracy and precision of the data obtained. The FPUAs are invited to be actively involved in the process (Lipej, Male, 2015). It is anticipated that municipalities will sign rent agreements with traditional users of municipal forests and pastures for a period of up to 99 years, as regulated by the Civil Code. Any rent agreement, prepared by a notary with respect to real estate for a term of more than 9 years should, according to Law no. 33/2012, be recorded in both the kartela (textual data) and on the cadastral map. Only then is the process completely legally formalized and finalized. Figure 1 on the next page shows the work steps in the participatory mapping process for defining forest and pasture user rights currently under implementation in the FLED project.

Based on the experience the participatory mapping is contributing to (CNVP, 2012):

- The identification of users and reaching an agreement among them on the forest and pasture areas they have been traditionally using;
- Strengthening relations within the community, which enhances their interest in collective action in municipal forests and pastures;
- Improving municipal forest management, land use and planning through the awareness of the forest users off their forest and pasture land rights;
- Broadening the participation of local people in the decision making and capacity development for forest and pasture land demarcation; and
- Supporting forest and pasture land dispute or conflict resolution.

The process of participatory mapping occurs through the participation of the community and, accordingly, the following actions are taken:

- Participation of the community in the entire process of participatory mapping;
- Involvement of women as users and neighbors - gender equity is respected;
- Raising the capacities of the community to collaborate together to address common interests in municipal forests and pastures;
- Demarcation of forest and pasture users’ parcels;
- Creating digital maps of village boundaries and forest and pasture users’ parcels;
- Creating field forms for each forest and pasture user to record information for each parcel;
- Setting-up a database jointly with the forest and pasture users in which all of the gathered information is stored;
- Using up-to-date technology in participatory mapping (Global Navigation Satellite Systems - GNSS/GPS and GIS); and
- Ensuring Municipality Council authorization of the mayor to sign an agreement with traditional users.
Figure 1: Work steps in the participatory mapping process (adapted from the sources: CNVP, 2012; Lipej, B., Male, J., 2015)
The digital map and use of GNSS in the process is an effective participatory communication tool on the village level to:

- Allow the rapid identification of the village’s social, economic, and environmental problems with the active participation of the community regarding issues of the natural resources;
- Facilitate broad discussions without communication barriers and to motivate forest and pasture users to reflect on and discuss their land issues;
- Create a common understanding among forest and pasture users and the main authorities on the spatial distribution and status of forest and pasture resources and resource use;
- Provide a basis for joint and demand-driven decision-making between forest and pasture users and municipality authorities;
- Mediate boundary forest and pasture land conflicts; and
- Generate information on forests and pastures and forest and pasture land use which can be officially approved by the municipality and Municipality Council.

The preparation of materials for an application to register the municipalities ownership of forests and pastures and to transfer user rights to the end-users was found to be manageable in the pilot and first FLED project locations when supported by technically skilled professionals, lawyers with relevant knowledge of registration, and by using appropriate software and hardware. Some additional challenges and opportunities were identified by the pilot, as presented in Table 1 on the next page.

Currently, the major challenge with respect to the registration of ownership and user rights of municipal forest and pastures is to upscale and accelerate the complex registration and participatory mapping activities. It could be noted that the opportunities for wider use of the approaches will require greater support from the central and local levels, financial and human resource capitals, awareness-raising campaigns among policy and decision makers, traditional users and user organizations by employing elaborated case studies, training campaigns, and the standardization, optimization, and rationalization of procedures.
### Challenges and Opportunities

<table>
<thead>
<tr>
<th>CHALLENGES</th>
<th>OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of clarity in the participatory mapping process.</td>
<td>Setting out clear rules for all stakeholders involved in the participatory mapping process to obtain user agreements for the LGU-forests and pastures.</td>
</tr>
<tr>
<td>Required knowledge and skills in measuring and mapping in border demarcation using a GNSS/GPS device. Presenting the polygons measured in orthophotos to enable farmers to more easily recognize their territory visually.</td>
<td>Making use of a trained core group of LGU-members who are capable of using GNSS/GPS, creating maps and showing the location of plots on orthophotos. Trainings and field exercises can help to bridge this gap.</td>
</tr>
<tr>
<td>Understanding of technical terms by LGU-forest and pasture users.</td>
<td>Discussing with farmers basic forest management strategy, and taking into consideration their needs and the capacities of the forest and pasture area they traditionally use. Illustrative charts or any other simple understandable tools are required to show how sustainable forest management (a farmer’s forest) practices work.</td>
</tr>
</tbody>
</table>

Table 1: Challenges and opportunities of participatory mapping in Albania (adapted from the sources: CNVP, 2012; Lipej, B., Male, J., 2015)

### Conclusions

The registration of users’ rights on municipal forests and pastures is a long-term process that should follow the registration of municipality ownership rights for all land transferred in Albania in the period 2007-2016. It would be beneficial for farmers and rural forest families to protect and formalize their traditional use rights by implementing participatory mapping in a mass approach, in larger areas with stable financial (potentially international (co)-funding), technical and management support.
A rational, realistic, time-limited, sustainable and affordable concept of a participatory mapping approach in support of land administration and management of forest land in Albania and elsewhere should take account of the suggested guidance and combine it with the lessons learnt in piloted areas. Good lessons and best practice were experienced in the participatory mapping activities in Albania in the last 10 years that are ready to be shared with the professional society and, with some adaptations, for country-wide implementation.

References

CNVP - Connecting Natural Values and People (2012). Strengthening Sustainable Communal Forestry II – Albania, Module on Participatory Mapping Process and Methodology and Registration to IPRO of Communal Forests and Pastures. Tirana, CNVP.


Tables and Figures

Table 1: Challenges and opportunities of participatory mapping in Albania

Figure 1: Work steps in the participatory mapping process