

Participatory Land Use Development in Bosnia and Herzegovina

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1. Introduction

Bosnia and Herzegovina (BIH) is one of the states that emerged from the dissolution of the former Yugoslavia, and has an area of 51,129 km², and an estimated population of around four million people.

The country is largely made up of mountainous highlands in the South and the West, hilly lands in the middle and the North, and flat to undulating plains in the Northeast.

Agriculture has always played an important role in the Bosnia and Herzegovina economy, providing employment for about forty percent of the population.

Natural conditions in Bosnia and Herzegovina created specific agricultural zones in country:

- intensive production of grains, forage and industrial crops and cattle rising in East and North part of the country,
- extensive sheep and cattle breeding in Central and West part of the country,
- intensive production of Mediterranean vegetables in South part of the country.

Land fragmentation has always been the problem in BIH. According to some estimates (Vlahinić, 2000), there were more than four million land parcels in the pre-war period. Since no agricultural census has been carried out, there is no official data on the current number of land owners and the number of agricultural farms.

Generally, land fragmentation was caused by:

- Inheritance Law
- Socialist regime

According to the Inheritance Law all legal successors divide the inherited land into equal parts during many generations.

The socialist regime treated private management very negatively. The size of the private farm was limited to 10 ha, and in mountain regions up to about 30 ha. Moreover, private properties and farms were not favourable in that time. The full attention was paid only to the state farms (which was about 5% of land).

During the eighties, the BIH authorities realised the importance and needs for land consolidation and modernization of agriculture in BIH. Hence, the Mid-term land consolidation program to be implemented in the period from 1981 to 1985 was prepared. Around 65.000 ha of land were included in this program. Willingness and capability to deal with land consolidation were the main criteria for selection of municipalities.

Before the beginning of the war in BIH, that is before 1992, consolidation has been carried out in the following municipalities (Resulović et al, 1994):

Municipality	Consolidation in ha
- Bijeljina	33.081
- Brčko	15.514
- Orašje	4.360
- Odžak	3.054
- Livno	3.038
- Bosanska Gradiška	1.500
- Grude	4.360
Total	64.907

The different results were achieved in each municipality. Only the first phase of the process was completed in Grude and Bosansko Grahovo municipalities, while in some other municipalities administrative work and making of the new cadastral maps were not completed. More successful results were achieved in Odžak, Orašje, Brčko and Bosanski Šamac municipalities, so at the end of the process, a plan for the extension of this activity was prepared.

Problems occurred during land consolidation process

- No synchronized work between different stakeholders involved in the process
- No ensured legal acts and financial resources by the state at the time
- No subsidies for the development of agriculture
- Slow work of the Cadastral and Geodetic Department in municipalities
- Lack of detailed soil and geodetic maps
- Lack of financial support for preparation of the projects related to the drainage and irrigation systems as well as road network
- Lack of a proper Inheritance Law that should stop further land fragmentation
- Lack of training on land consolidation for stakeholders
- Lack of trust in the authorities in charge for such program
- Lack of interest in following up land use after land was consolidated

The war has destroyed effects achieved by these measures, and at the present BIH are facing many problems related to the land.

2. Present situation

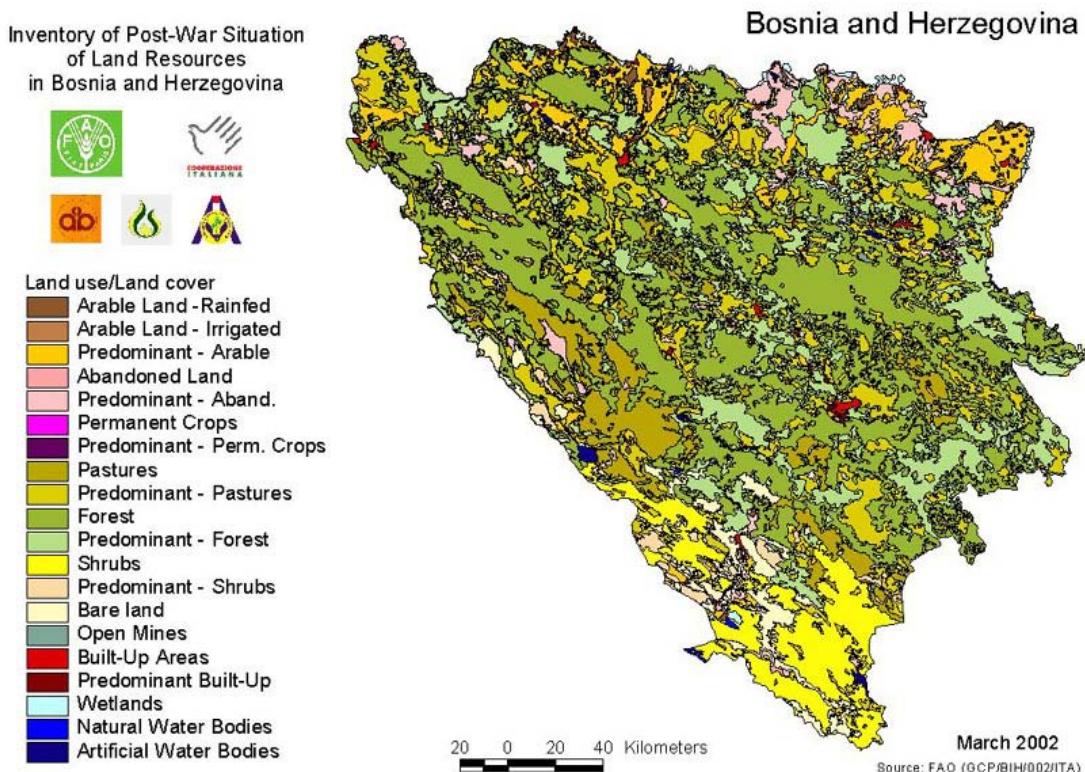
The war that lasted from April 1992 to November 1995 deeply affected life and particularly the socio-economic structure of Bosnia and Herzegovina. According to the Dayton Peace Accord, BIH consists of two Entities, the Federation of BIH and Republika Srpska (RS).

The war had a major impact on present land use and land cover, which are reflected in the area of abandoned land and deforestation. In the year 2001 in FBIH 50% of arable land was uncultivated, and 30% in RS, with a trend of future decrease in share of cultivated land. Some 250.000 hectares in BIH are infested with landmines and, if the demining proceeds at its current pace, the estimate is that these areas would be demined in 40 years.

Significant deforestation occurred mainly during and after the war. Large areas of forest were cut and wood used as firewood as well as a source of funding for the war.

BIH is still characterized by presence of a large number of small farms. The large majority of farm holdings are very small (2-3 ha) and their land dispersed into 6-8 plots on average. The farms with 1 ha of land make 34,5% of total territory and farms with up to 2 ha of land make 54,0% of BIH territory.

Former state farms are mostly not working any more or in a difficult, often not finalized privatization process. Some 100.000 hectares of high quality plough lands are state-owned.



An inadequate and uncoordinated data, especially cadastral and land ownership data is one of the main problem in BIH. These data are not updated and do not reflect the actual situation. There are no official data on the number of landowners or the number of agricultural households. What is evident is that the number of owners is growing continuously and the size of holdings reducing.

Legislation on land resources

The main legislation dealing with land issues refers to the two laws on agricultural land of the Entities. In the Federation, the law was issued in 1998. A new law is being discussed, but is still pending. In the RS, the law has been issued in 2004, but went immediately under criticism and it is currently under revision.

Both laws are extremely loaded with norms and regulations, providing strict control to the land utilization. The Federal Law is focused on the agricultural aspects, taking into

considerations particularly the protection of the agricultural land, which is classified according to its actual use and the quality of the soil following a national version of the land capability classification. The Law of RS provides a lot of norms about ownership and leasing of the land. These norms affect seriously the land market, making it difficult if not impossible a transparent transfer of property.

The laws on agricultural land give to the municipalities, together with other governing bodies, the task of planning the use of the land, according to master plans that should be prepared at Entity or Canton level. Both laws, in the absence of such plans, entitle the municipalities to take their own decisions of those matters, although in RS they have to be approved by the Ministry of Agriculture.

Considering all problems and constraints mentioned above for land development, the main question that emerges is how rationally to use and to protect the land?

3. Participatory Land Use Development

FAO assistance

One of the most significant project for development of rural areas is the “*Inventory of Post War Situation of Land Resources in Bosnia and Herzegovina*“ project, implemented by FAO with funding from the Italian Cooperation. The Project, implemented in two phases, introduced new methodologies and approaches for rural development, linking the technical aspects of planning and the socio-economic conditions of rural areas.

In the first phase, the Project produced a countrywide database on soil, terrain and climate stored in a Geographic Information System (GIS). A land evaluation system based on a suitability scale has been created following the Agro-Ecological Zoning (AEZ) methodology of FAO.

In the second phase, a land evaluation system at local level has been introduced through a development of the AEZ, called Economic-Ecologic Zoning (EEZ). The Participatory Land Use Development approach (PLUD) was introduced at the local level, based on the concepts of the Negotiated Territorial Development.

The third phase of the project is ongoing, and training on PLUD methodology has been organized for different stakeholders.

More information about the Project can be found on the website www.plud.ba

Participatory approach

Participatory Land Use Development (PLUD) is a bottom-up approach with focus on planning at local level based on knowledge and consensus among the stakeholders. Its main goal is to improve land resources management by local users, based on dialog between all parties involved.

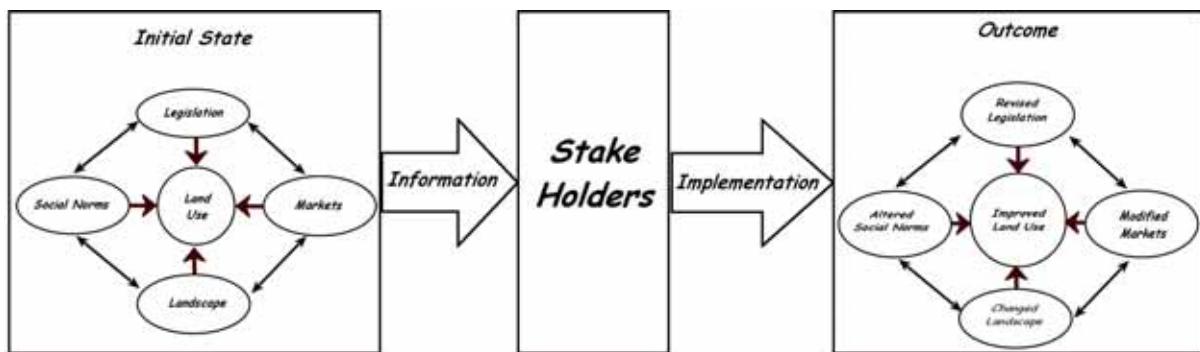
The war consequences are still present in BIH at all levels, especially at the municipality level.

Municipalities in BIH face with many socio-economic and organizational problems, ranging from the source of financing to the material consequences of the conflict (destruction of infrastructures, mine contamination) and demographic issues (number, structure and distribution of population). A great number of municipalities still deal with many displaced persons and refugees (2.5 millions of the population has been moved internally or externally from their origin). This fact has created tensions within the population of the municipalities, and has contributed to a passive attitude of many people regarding joining the process of development and decision making.

The common problem of almost all municipalities is the lack of an adequate land registry system, or a land database, as well as other relevant planning data. The current available data are based either on assessments or on data collected before the war. Staff is often not motivated.

However, the role of municipalities in the process of planning is increasing.

Participatory Land Use Development (PLUD) contains three distinct concepts: *land use, development and participation*.



The Participatory Land Use Planning Model

This model depicts land use as a function of four interrelated variables.

The second concept in PLUD is development. The implication of this concept is that there is some initial state of the variables that define land use patterns that are less than optimum in some respect. The objective of development is to change these initial variables in ways that will cause changes in the land use patterns that are seen to be improvements.

The participatory approach is based on the concept that nobody knows a territory like the people that live and work there. Equally important is the fact that any changes that occur in a territory will most directly affect these same people. Considering these facts, it seems essential that these people should play a central role in any development process.

Hence, the identification and stakeholder analysis are very important part of this approach. This analysis consider the stakeholders characteristics (interest, power, control over resources, knowledge and information, how they are organized...), their relationship with others, their influence and motivation towards decision making, including expectations, likely gains and willingness to participate and invest resources.

Once the participatory process starts, the stakeholders will be organized into working groups. One of the objectives of the working groups is to analyze the situation in their municipality. A Territorial Pact on future land use is a negotiated agreement between the main stakeholders (land users, private farmers, land managers, urban developers, industrial and other entrepreneurs, forest operators, administrations) on how land could and eventually should be used in the future. It is the result of a process of consultation, negotiation and consensus making.

Identification of the priorities for actions and preparation of Development Portfolio, a list of well defined projects in order to implement those priorities, are next step of the process.

In the land use planning process, Economic-Ecologic Zoning (EEZ) is to be considered as a very efficient tool to aggregate data in a simple, easily understandable and readily usable form for use and to initiate discussion between stakeholders on future development initiatives and actions. Ecological-economic zoning corresponds with identifying areas that show approximately the same constraints and potentials for an economic development mainly based on the use of land and natural resources. The identification of lands with an agricultural potential should be a priority. Additionally, EEZ also includes the visions of different stakeholders on how they perceive the future development of their own activities, as well as how they understand the ambitions of others.

Land use planning based on the PLUD methodology has been implemented by the Project in six pilot areas: Stolac, Sanski Most, Prnjavor, Bratunac, Srebrenica and Milići.

The collection and processing of environmental and socio-economic data has been done in collaboration with three national technical institutions.

Main data collected were:

- Soil data (characteristics and qualities)
- Land cover
- Risk of erosion
- Parcel size
- Cadastral data (population, land use, production)
- Farming system (size and type of farms, productions, market orientation)
- Agroindustry

The data were collected from existing records, maps and databases, satellite imagery, interviews and surveys. For these municipalities GIS databases and EEZ were prepared as planning tools.

Lessons learned

- Participatory process is not an easy task, particularly in a country that goes through a great number of problems and where the consequences of the war, as well as the practices of the old socialist system are still felt in all spheres of life.
- PLUD methodology demonstrated to be an efficient tool for better community problem solving and program implementation, in a more efficient, economical and sustainable way, applicable at the level of municipalities in BIH.
- The participatory process was well accepted and welcomed by all municipal authorities. The achievements are different in these six pilot areas due to different existing socio-economic situation.

- The participatory process was recognized as a useful tool for establishing better relationships and partnerships between municipality administrations and local stakeholders.
- The process of participation plays a crucial role in reconstruction and community strengthening.
- The process of participation is also very important for post-conflict management, and it is particularly significant for the areas most stricken by the war, where ethnic tensions are still present.
- The main problem with the participated planning is a scarce awareness of the benefits that such a process can bring.
- One of the most important tasks has to do with educating the stakeholders, as well as with building the capability of those who will be in charge of the process. The education should aim at preparing the stakeholders for taking part in the process, in order to be able to better promote their ideas and to achieve their economic interest.
- GIS is an important tool for easier decision making and the definition of development plans. Through the process of land use planning, the technical capability of different institutions has been improved.

4. Conclusions

The Mid-term land consolidation program was implemented in the period from 1981 to 1985. This process was driven by the centralised state, and local community or stakeholders were not included in planning and decision-making process.

The war that lasted from 1992 to 1995 stopped implementation of the land consolidation program, and destroyed results achieved by the program. Moreover, the war created various problems and made great changes in all aspects of life in BIH.

New system of organizational set up of the country gives an opportunity to stakeholders and ordinary citizens to be a part of development planning and decision-making process.

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Land privatization, land restitution, land consolidation and the promotion of a land lease market are priorities for the development of the agriculture. Considering very positive effects of the participatory land use development, land consolidation can easily be put in a context of municipality level land use planning, with a direct focus on rural development.

Present legal acts related to the land are not well developed and it has to be improved in a way that ensures all aspects and land issues on protection, management, land market and renting etc.

This approach and methodology is a first important step towards rural development on sustainable basis, were land consolidation will play very important role.

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