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## ATTITUDES TOWARD IMPLEMENTATION OF MODEL FOREST CONCEPT – CASE STUDY OF TEŠANJ MUNICIPALITY

#### SUMMARY

For the last 20 years, economic development of Bosnia and Herzegovina has been based on utilization of natural resources. Such trend resulted with increased pressure on natural resources. On the other hand, changing demands of the society toward natural resources call for a more active and resolute efforts in terms of nature protection, increasing consumption of renewable energy etc., thus demanding for implementation of new, participatory and adaptive approach to natural resource management. Concept that implies active participation of all stakeholders, establishes rules for responsibility-sharing and strives to create procedures for addressing various interests over forest resources is known as forest governance.

Model Forest concept represents one of the modes of forest governance. It is an inclusive, participative and a transparent concept that promotes collaboration among stakeholders with diverse interests over specific landscape. Taking into consideration abovementioned changing demands over natural resources in Bosnia and Herzegovina, implementation of this concept could lead to a more sustainable and socially responsible management of natural resources. Therefore, purpose of this paper is to point out various aspects of implementation of this concept. Consequently, main achievement of this paper is to identify existing support and willingness for implementation of this concept by diverse stakeholders in Tešanj Municipality, as a pilot case study in Bosnia and Herzegovina. Implementation of Model Forest in Bosnia and Herzegovina, as innovative concept of natural resource management, could lead to membership in Mediterranean Model Forest Network as well as International Model Forest Network. Involvement in such international initiatives assures continuous improvement of natural resource management directed toward fulfilment of various economical, ecological and societal needs.

**Keywords:** Natural resource management, Forest governance, Model Forest concept, Tešanj Municipality, stakeholders.

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#### **INTRODUCTION**

Livelihood and wellbeing of people in Bosnia and Herzegovina (hereinafter B-H) have been dependent on forests for centuries. Consequently, such relationships had led to the creation of strong, both material and immaterial dependencies and cultural linkages of B-H citizens with forests and other natural resources. While science-based forestry made tremendous success in increased timber production, both social and ecological aspects of forest ecosystems have been marginalized for a long time. Taking into consideration that B-H has been basing its economic development mainly on natural resources, need for implementation of new, participatory and adaptive approach of forest management in B-H emerged.

As a consequence of turbulent political, social and economic changes, a significant reduction in the share of impact of national forest authorities occurred, comparing with the previous socialistic regime. In line with these changes and increasing public awareness of importance of forests for overall wellbeing, forestry professionals have been faced with new challenge - once traditional forest sector, based mainly on technocratic knowledge, needs to become more open and to include other sectors and civil society in processes of forest policy formulation as well as day-to-day forest management practices.

Concept that enables joint effort against these issues, implies active participation of all stakeholders, establishes rules for sharing of responsibilities and strives to make efficient and effective procedures for addressing these issues is known as forest governance. Generally, forest governance is related to the new modes of forest management that extend beyond the functions and powers of the State such as: political networks, forest certification, corporate social responsibility, national forest programs, Model Forest, public-private partnership, community forestry, community-based forest management, collaborative forest management, joint forest management etc. The Model Forest concept, as one of the modes of forest governance, is inclusive, participative and transparent process that promotes collaborative work among all stakeholders with diverse interests over specific landscape. Based on such principles, creation of joint vision of sustainable management of landscape and its natural resources is developed in close cooperation of all stakeholders.

The goal of this paper is to indicate various aspects of implementing Model Forest concept in Tešanj Municipality as a case-study in B-H. Until now, research on forest governance in B-H has been dealing with identification of current implementation of forest governance concept (Mutabdžija, 2012; Mutabdžija, 2013), forest certification (Avdibegović 2001, Avdibegović et al. 2003) and conflicts and relationships between different forest-related interest groups (Avdibegović and Marić 2009, Selmanagić Bajrović and Avdibegović 2010, Vuletić et al. 2010, Marić et al. 2012).

Since this is the first research paper which is dealing with Model Forest concept in B-H, its main achievement is to point out on existing support and willingness for its implementation by diverse group of stakeholders in Tešanj Municipality.

## MATERIAL AND METHODS

The term "Model Forest" was adopted in 1991 in Canada for the purpose of implementing the program for supporting voluntary partnerships within large forested landscapes (IMFN, 2008a). Term "model" was chosen since each site was intended to be a model that others could learn from to advance their sustainability goals (IMFN, 2008a). Therefore, a Model Forest is both a geographic area and a partnership-based process through which individuals and groups, representing a diversity of values, work together toward a common vision of sustainable development of a landscape in which forests are an important feature (IMFN, 2008a).

Although each Model Forest shares common principles, goals and objectives, no two Model Forests are identical. Cultural and historical heritage, geographical, political and institutional contexts and other characteristics contribute to each Model Forest's uniqueness.



Figure 1: Principles of Model Forests (IMFN, 2008b)

Each Model Forest initiative constructs a relevant, inclusive, technically sound and achievable approach that is reflecting Model Forest's circumstances, laws and customs (IMFN, 2008a). Each Model Forest is respecting similar set of principles as follows: Landscape; Partnership; Commitment to sustainability; Governance; Program of activities and Knowledge sharing, capacity building and networking (Figure 1). These six principles and their associated attributes provide a baseline for establishing and maintaining a Model Forest. Once a Model Forest is set up, it can be assessed by comparing its structure and activities to these principles. The International Model Forest Network (IMFN) is an umbrella organization that gathers all Model Forests established around the globe. IMFN is composed out of regional networks. These networks pursue joint projects and training, identify collaborative projects and secure political support in order to create more opportunities for effective site-level activity (IMFN, 2008a). Currently, IMFN has 6 regional Model Forest networks and Mediterranean Model Forest Network (MMFN) is one of them. It includes countries in southern and eastern Europe, the Middle East and north Africa.

Research on attitudes toward implementation of Model Forest concept in Tešanj has been conducted for the purpose of implementing the IPA Adriatic "Adriatic model forest" (AMF) project. AMF project uses methodology of MMFN for the creation of the new Model Forest in Dalmatia (Croatia) while other six project partner countries (Albania, B-H, Greece, Italy, Montenegro and Serbia) have opportunity to practice and learn about Model Forest concept. Therefore, Tešanj Municipality was chosen as pilot site for practicing methodology of Model Forest establishment.

Town of Tešanj is located in the northern part of B-H. Administratively, it belongs to the Zenica-Doboj Canton of the Federation of B-H. Although Tešanj is relatively small town in B-H, it is well-known by proactive and diligent residents that want to keep up with the time. Tešanj is declared as: "Municipality with European quality of living, economic power and ecological awareness". Having in mind these characteristics of Tešanj, it was decided to choose this municipality as pilot site for practicing Model Forest establishment.

After selection of an appropriate area for Model Forest establishment, identification of stakeholders that are interested for Model Forest concept represent the next step in MMFN methodology (IMFN, 2008a). Therefore, meeting with potential stakeholders was organized in Tešanj. Invitations were sent to various types of potential stakeholders (local administration, education institutions, NGOs, entrepreneurs etc.) that have interests in natural resources and their management in Tešanj. Participants were introduced with Model Forest concept after which they were asked to express their interests for participation in implementation of MF concept in this area. Their attitudes were evaluated by survey questionnaire. The research question on which it was intended to answer by this questionnaire was: *What are the attitudes of local stakeholders for implementation of Model Forest concept in Tešanj*?

Respondents were asked to describe institutions they are representing as well as their interests toward natural resource and their management in Tešanj Municipality. Those questions were asked in order to assess diversity of potential stakeholders as well as their interests related to natural resources and their management in Tešanj (economic interests, touristic interests, nature protection interests, educational interests etc.). At the end of the questionnaire, respondents were asked to express attitude of their institutions for voluntary involvement in Model Forest concept in Tešanj Municipality. They have been offered to express the interest on a 5-level scale where "1" meant "not support at all" and 5 meant "support completely". All potential stakeholders that attended the meeting (23 of them) completed the questionnaire.

#### **RESULTS AND DISCUSSION**

A Model Forest, viewed as a process, is as much about the people who sustain themselves from the landscape, their impact on its resources and their human development as it is about trees and forest products (IMFN, 2008c). Similar to the new approaches in management of protected areas: "(...) this system involves various actors, rules and responsibilities that are interrelated and in constant interaction" (Dorđević et al., 2013). Therefore, involvement of various stakeholders that work together to define shared and locally relevant vision of sustainable management of landscape is continuous process that constantly demand for greater representation of various stakeholders. Yet, during the identification of initial group of stakeholders of Model Forest it is recommended to consider following factors (IMFN, 2008c):

- **Influence** - It is necessary to include both stakeholders with real influence as well as those who may be affected by decisions but have no power to influence those decisions.

- **Responsibility** - It is necessary to consider as much stakeholders as possible that have various types of responsibilities (such as: regulatory responsibilities, contractual or legal responsibilities, financial responsibilities and ethical and moral responsibility to those that are affected by, or that can affect, decision-making in the Model Forest).

- **Representation** - It is necessary to take care on different values and uses of natural resources as well as legitimacy of stakeholders to represent some interests.

Figure 2 shows types of organizations that were invited on initial meeting in Tešanj Municipality by considering abovementioned factors.





Associations were the most numerous since 12 different associations attended the meeting. Withal, this was the most diverse group of potential stakeholders since representatives of various associations (such as cycling club, motorcycle club, hiking clubs, hunting association, environmental NGOs, associations of farmers and entrepreneurs, scout association, women association for handicraft production, beekeepers association etc.) attended the meeting. Representatives of 5 different private companies attended the meeting. Two of them are wood-processing firms, one is bottling mineral water, one is doing wholesale and catering while one is engaged in trading of petroleum products. Representatives of Municipality of Tešanj as local administration unit and public forest administration attended the meeting as well. As concerns public enterprises, representatives of cantonal forest enterprise and utility company, as those responsible for managing with forests and water resources at the territory of Tešanj Municipality were on this meeting. Gymnasium and Secondary school for vocational studies, as representatives of secondary education institutions, attended this meeting.

Figure 3 shows position of potential stakeholders that attended the meeting with respect of their influence, responsibility and representation. Despite of the

fact that associations provide biggest representativeness of various interests toward natural resources, currently these organizations have no enough influence or responsibilities over natural resources in Tešanj Municipality. Therefore, one of the most important results that Model Forest concept can bring to the associations is increasing of their legitimacy and responsibilities as ways for fulfilling their needs and expectations from natural resources in Tešanj. Developed and active private business represents one of the well-known specificities of this municipality. Such characteristics increase influence of private sector while their portfolio of activities and strong local patriotism leads to increased responsibility over natural resources, together with other types of their responsibilities such as financial or contractual.



Figure 3: Position of potential stakeholders with respect of their influence, responsibility and representation

These facts lead to conclusion that private sector could have important role in establishment and involvement of more stakeholders in process of establishment of Model Forest in Tešanj. Public administration has both strong influence as well as various types of responsibilities over general public in Tešanj municipality. By being a stakeholder in Model Forest, public administration could increase inner capacities to represent various interests of local population toward natural resources and their management. Same also holds for public forest enterprise and utility enterprise. On the other side, influences and responsibilities of public administration and public enterprises have undeniable importance for assuring acceptance of Model Forest concept in Tešanj. Legitimate and ethical responsibility for education of young generation makes education institutions a very valuable potential stakeholder of Tešanj Model Forest. Nevertheless, these institutions have low influence on management of natural resources in Tešanj. Therefore, similar as associations, these institutions could benefit from Model Forest concept by enabling fulfillment of their interests and expectations toward natural resources.

When it comes to the interests over natural resources, few stakeholders were specific in justifying the reasons why protection of natural resources is the most important interest. For instance, representative of association of farmers pointed out that health and stabile natural resources are the most important precondition for production of organic agricultural products. Furthermore, representative of ecological NGO stated that protection of natural resources is important for tourism development in Tešanj. This is an important finding since: "(...) recreational services meet the needs of the population towards tourism and recreation in the forest, but also contribute to the multifunctional forest management "(Poduška et al., 2014). Interests of few stakeholders were referring to the forest ecosystems, specifically. Both representatives of ecological NGO and Gymnasium expressed importance of education about forest ecosystems and management practice as well as nature. Nevertheless, same stakeholders stated that their interest is to protect entire forested area of the Municipality. Representative of cantonal forest administration specifies prevention and combat with illegal activities in forestry as one of their most important interests. Furthermore, utility company and private company for water bottling express their interest for forest protection in order to ensure constant supply of fresh drinkable and mineral water. Several stakeholders express their economic interests which vary from purchasing of FSC certificated wood assortments to introduction of honey tree species such as acacia, lime and chestnut. Apart from these interests, several stakeholders express their need to interact with other institutions and to be actively involved in transparent process of decision making over natural resource management in Tešanj. Such interest indicates good potential for successful implementation of Model Forest concept in this municipality.

## CONCLUSIONS

This research enabled assessment of the level of stakeholders' support and attitudes toward Model Forest concept and its potential role in natural resources management at the territory of Tešanj Municipality. Based on collected answers, one can conclude that most of the stakeholders have positive attitudes toward Model Forest concept. Withal, they expressed strong support toward the process of establishment of Model Forest at the territory of Tešanj Municipality. Positive attitudes toward implementation of this innovative concept could lead to continuous improvement of natural resource management. Analysis of stakeholders' interests toward forests and other natural resources in Tešanj revealed that the most pronounced interests are those for protection of forests and other natural resources. This means that most of the future Model Forests activities will be directed toward creation and implementation of innovative tools for nature protection and sustainable use of natural resources. Besides, based on expressed interests of stakeholders, economic and educational activities could be the other two pillars of Model Forest activities. This research revealed that most of stakeholders in Tešanj Municipality are willing to be more involved in decision making and management of natural resources as a basis for fulfillment of various interests toward specific landscape. With respect to the essence of the Model Forest concept as well as the current issues in forestry sector, there is a need for promotion and implementation of similar innovative participative concepts in B-H.

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