

VOL.2 - PART B

DEVELOPMENT OF MASTER PLAN



Chapter B 1. Goals and Strategies for Sustainable Regional Development

1.1 Goals for Regional Development

The Study Areas are endowed with rich nature and tourism resources, yet post-conflict conditions do not allow them to reestablish their livelihood base as common issues of the regions. So far, majority of people spend their lives at subsistence level. The prevailing situation has left both of the North (Pliva Study Area) and South (Velez Study Area) regions with unexploited nature and relatively undisturbed historical and cultural heritage. In order to drive the area's regional economy through eco-tourism, the three planning goals are formulated.

Goal 1: Enable communities to be proud of their region, be conscious of their environmental uniqueness and to cherish historical-cultural heritage

People in the Region feel proud of the natural endowments and cherish historical-cultural heritage, through engagement in continual discovery of uncovered assets and voluntary conservation activities.

People in the Region maintain stable economic bases that provide them with maximum multiplier, regenerating returns to local economy and create sustainable employment opportunities. Intra-regional economic ties are strengthened and collaboration among sub-regions intensified.

Goal 2: Enhance people's livelihood in harmony with the environment

Goal 3: Optimize regional resource exploitation that yield maximum economic benefits to local communities under environmental constraints

People in the Region maintain sustainable habitat and raise livelihood through nurturing indigenous industry base. People are aware and conscious of environmental constraints.

1.2 Strategies for Sustainable Regional Development

The region's development through tourism is understood to be instituted by a tripartite reaction, composed of the "Supply Side", the "Tourism Demand Side", and the "Stakeholders", who maintain local resource base. The Supply Side provides resource use by tourism, in response to demands by eco-tourism consumers. Local stakeholders maintain and mobilize environmental resources to cater to the needs of the demand side and the supply side.

In order to accelerate eco-tourism driven economy, overarching strategies are formulated in view of strengthening linkages of the tripartite demand-supply-stakeholders and intensifying their activities. The overarching strategies are applicable to the Pliva Study Area and to the Velez Study Area, respectively.



Figure B 1.1 Optimum Balance of Three Factors for Sustainable Development

(1) Supply Side

Strategy 1: Tourism Product Development and Quality Control

Attractive and competitive tourism products and specialty products are yet to be offered from the target Regions, as they are supplied in the raw, less value-added, and premature manner.

It is strategically important to identify and grab the niche while those premature products will be market-tested and refined, through inputs of skills improvements, appropriate equipment investment and acquired know-how. Valued specialty products and tourism product, tailored to niche, shall be developed by stages with goals stated. Indicative are such product development efforts to comply with EU Standards to be prepared for pre-accession.

(2) Demand Side

Strategy 2: Increased Awareness on Competent Marketing

The Regions lack resident tour operators and agents, aware of tourism trends and popularities, and it also lack middlemen looking for specialty farm-produce. Therefore, the Regions need to nurture such marketers to exploit potential demand. Indicative are extended direct selling of farm-produce of the Region piloted at eco-house, leading to awareness on consumer preference and local specialty development. Prospecting Southwest Balkan market by diversified tourism product offering coupled with specialty produce need to be addressed.

(3) Local People and its Environment

Strategy 3: Local Initiative Development with Effective Supports

Although tourism business is led by private sector, local communities in the regions where many people has not gotten yet basic livelihood due to worse socio-economic conditions after the war and social reforms, need effective supports and trigger developments.

The local initiatives can be more influential and successful while local public service is weak and insufficient, if they are integrated within other sustainable development initiatives at a regional and local level. For horizontal integration within the community, the success of local eco-tourism initiatives may depend on vertical integration with regional and national level initiatives to support and promote responsible tourism.

Strategy 4: Sustainable Resource Use

A fundamental characteristic of community-based development is that the quality of the natural resources and cultural heritage of the Study Area should not be damaged and, should be enhanced by eco-tourism. Adverse impact on the natural environment should be minimized and managed in proper measures and the historical assets and culture of indigenous communities should be preserved and revitalized through eco-tourism.

The sustainable resource use in order to succeed toward future can be enforced by local stakeholders' wider participation and efforts based on appropriate environmental awareness.

When four strategies apply to the regions, it is important for regional development to take account of synergy effect among strategies effectively and sufficiently through integrated manner. Concrete measures for strategies needs to coordinate with each area and integrate them by local initiative development with effective public supports.

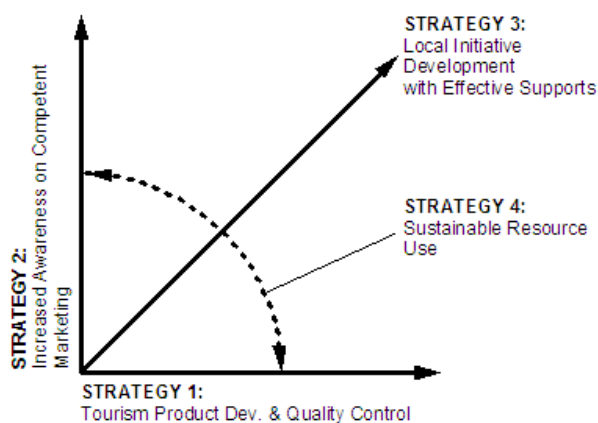


Figure B 1.2 Development Strategies for Sustainable Development

(4) Strengthening Opportunities by Local Characters

Four strategies need to be applied to the Study Areas in appropriate manners in order to avoid unfitted development or over-development, taking account of various local characters and specific development needs in terms of different socio-economic, historical and cultural background. It is inevitable also for the regions to identifying environmental character scientifically by the environmental zoning in order to utilize and conserve resources.

Six municipalities in the two regions are characterized into three groups as shown in below, which different development approaches are required, taking account of a) strengthening local opportunities, b) environmental vulnerability, and c) livelihood encouragement.

Group 1: Ensuring Basic Livelihood through Eco-tourism

Eco-tourism development in Jezero and Podvelez, where local communities are facing difficulties not to be able to generate basic income due to considerable retrogression after the war, is expected to play a essential role in ensuring their livelihood in combination with enhancing agro-tourism development. Four strategies

need to be applied effectively to tow municipalities in order to improve this issue appropriately.

Group 2: Encouraging Income Diversification by Eco-tourism

Sipovo and Nevesinje where forestry and agriculture with some hunting tourism have maintained low on the hog need to diversify their economic development through eco-tourism. Four strategies focus on diversifying opportunity of livelihood for local communities in two town areas in combination with agricultural development and eco-tourism.

Group 3: Enforcing Tourism Income

Four strategies focus on reviving Yajce and Blagaj known as historical cultural tourism destinations where those destinations had played before an important role in hauling each region as traction engines. The improvement and development for their tourism products and tourist destinations through eco-tourism would be a key to enforce and ensure tourism income in two areas.

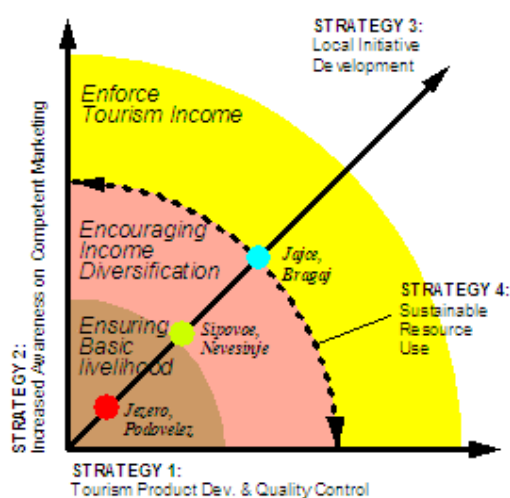


Figure B 1.3 Development Approaches by Local Character for Sustainable Development

- (5) Business Development through Eco-tourism contributing to Environment Awareness
- Eco-tourism is expected to be one of environmental-friendly business or industry enabling the local communities to contribute to the sustainable resource's use and local environment conservation. Needless to add, environmental problem become global issues, every industry

has been highlighting the responsibility of not only the public but also private sector to protect natural and cultural heritage and emphasize the importance of environmental sustainability. Eco-tourism can generate the necessary revenue to gain basic livelihood and contribute to environmental protection.

Taking account of weak public service for environmental conservation in the regions, private sector which is expected to be one of the important players to contribute to the environmental management system through eco-tourism should be enforced and built in by certain measures to encourage business (e.g. award or accreditation system, codes of conduct, etc) and supports by public sector.

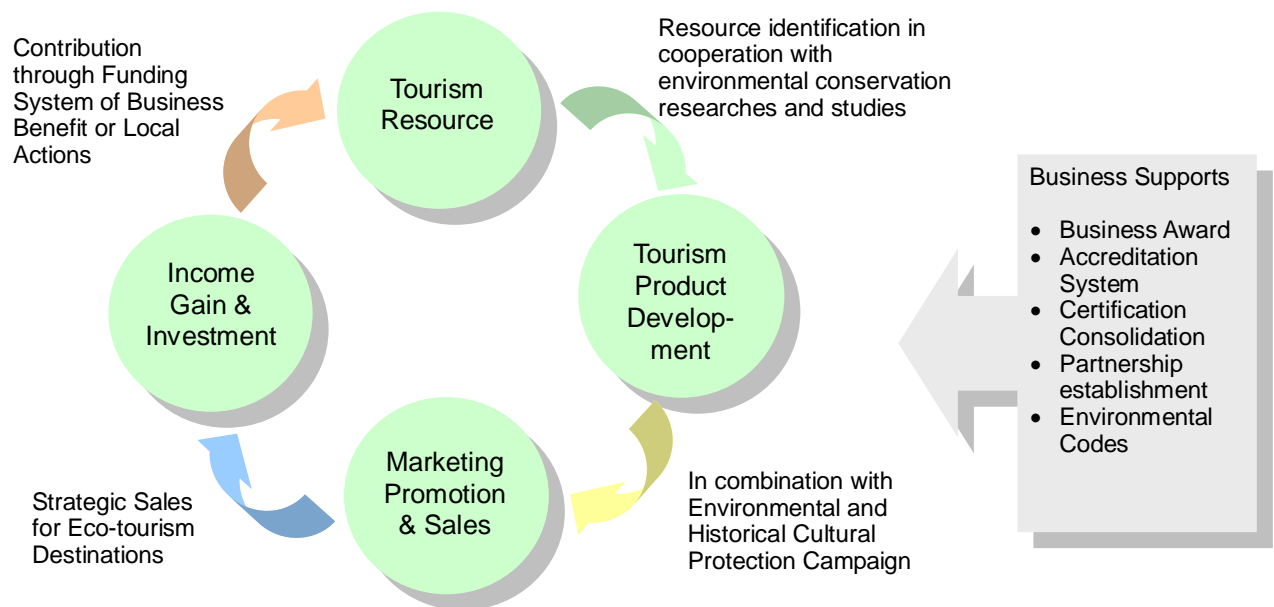


Figure B 1.4 Business Development Contributing to Environmental Awareness

(6) Integrated Measures for Sustainable Regional Development

There are common five development measures for the regions to embody four strategies. Each measure needs to be coordinate and integrated in appropriate manners in order to achieve successful implementation efficiently and effectively, taking account of mutual communication and tight linkage among implementation bodies.

Especially, community-based eco-tourism initiatives should be centered on a clear strategy agreed and understood by the local community and all other stakeholders with an interest in

tourism and conservation. The development measures should enable a comprehensive picture to be formed of needs and opportunities in an area, so that a range of complementary actions can be taken. One of the main benefits from working on strategic measures is to provide the community with the tools and knowledge necessary for decision-making.

Also demarcation of roles and function for which stakeholders including private sectors of entrepreneurs, CBOs, NGO and local government and central agencies will be responsible, need to be clarified in order to implement measures effectively with well coordination and cooperation. Five development measures for the regions are required to formulate as follows. These development measures are described in detail in the next sections.

- Agriculture Development and its Diversification;
- Tourism Resource Management;
- Marketing and Promotion;
- Infrastructure and Tourism Facilities Development; and
- Institutional Building and Human Resource Development.

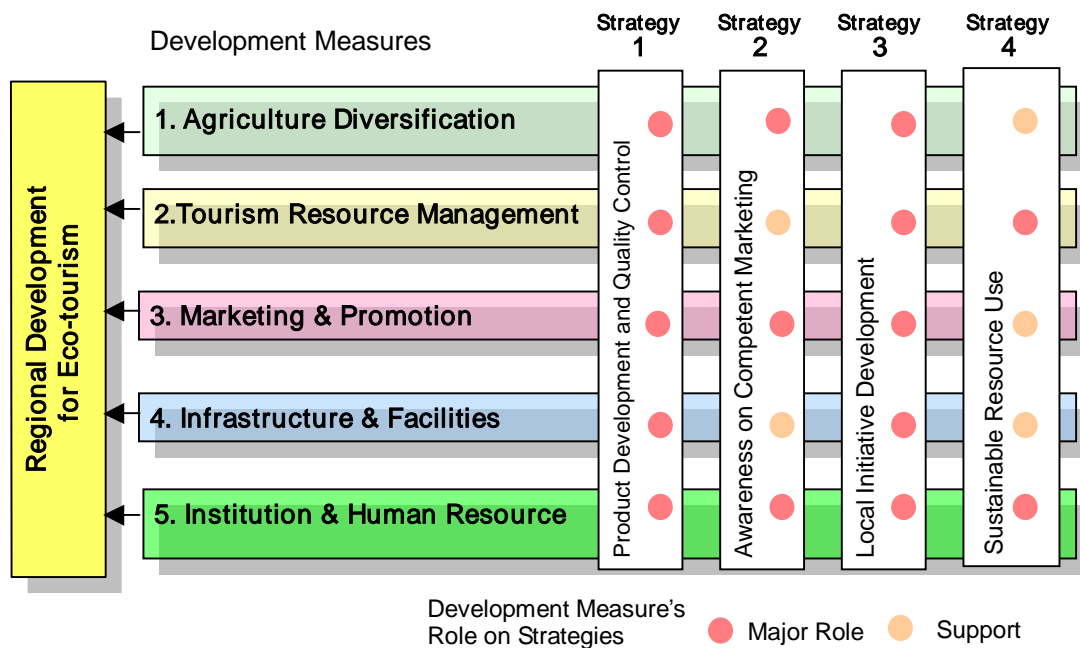


Figure B 1.5 Development Measures Supporting Strategies

1.3 Planning Approach

For the purpose of identifying possible development measures in each of the Study Areas, several workshops were held in the Areas participated by various stakeholders there. Some 200 ideas were proposed by local stakeholders. The JICA Study Team sorted them in accordance with the strategies explained above and added some of their own derived from their experience in light of the realities in the Areas. Consultations were made with the stakeholders and feedbacks were done. The result was the master plan presented in this report including an action plan for each Area for early implementation.

Chapter B 2. Approaches of Agricultural Development in the Study Areas

2.1 Approach Setting

Sustainable economic growth in BiH will also depend on the development of a vibrant economy in the rural, relatively poverty-stricken areas. Therefore, rural growth also plays a significant role in the poverty reduction agenda. Within rural and semi-urban areas, there are three likely “sources of growth”: (a) the sustainable development of wood-based industries, (b) improved agricultural competitiveness, and (c) development of the non-farm rural economy.

This chapter aims to develop rural strategies that reflect all three sources of growth and to generate farm and non-farm income; it would be an additional advantage if the new economic activities will be in line with the environment and attract agro-tourists.

Improving rural agricultural incomes usually require raising agricultural production and agricultural intensification. Therefore assistance to smallholder farms is necessary; especially extension services are needed. The goal must be to create new opportunities for subsistence farmers to become commercial farmers, to produce for the market. (Commercial farms should have 5ha minimum and/or at least 5 milk cows.) An Agricultural Development Strategy has to encourage commercial farming and technological innovation, improve farming skills and increase capacity of rural institutions (including farmers’ organizations) to face the challenges of production, profitability and sustainability.

Developing land markets is a critical step to the consolidation of arable land allowing the creation of economies of scale in production together with higher productivity. Completing all the property registration and institutionalizing the system are keys to using land as a collateral and thereby creating wealth from most families’ most important asset.

As already described in VOL 2. the average farm in BiH is too small, regarding use of machinery, volume of products, marketing etc. Therefore voluntary and profit-oriented farmer’s associations are a way out, just to combine the efforts of individual farmers. These farmers’ groups - new style cooperatives as well as new established private enterprises - have to concentrate their activities on two topics to:

- Increase the sustainable production by providing access to agricultural skills and technology; and
- Improve the marketing.

(1) Product Range for Agricultural Reasons

- Milk and milk products;
- Poultry and eggs;
- Pork and beef;
- Fish (mainly trout);
- Vegetable, fruit and berry production for fresh consumption;
- Vegetable, fruit and berry production for processing (red paprika, cabbage, tomato, cucumber, berries etc.);
- Herbs and mushroom collection (wild and plantations);
- Organic food; and etc.

Milk should be produced on the pastures in the hilly areas; there is also the extensive livestock farming located. Where only small farms with maximum 3ha are available BiH needs labor intensive products with a fast return like chicken, eggs and vegetables, the last ones also in greenhouses.

The marketing activities have to concentrate mainly on the home market, also to substitute the imports. After the local market, the regional market, that is South East Europe, has to be targeted and just for a few niche products like medical herbs and organic food the EC is a potential market.

Furthermore farmers have to get the right support to produce these agricultural products. Also smallholders must have access to market intelligence when making production decisions. But as just small budgets are available from official authorities, solutions have to be developed beside governmental subsidies. This could be done by:

- Technical assistance;
- Building up more associations to get access to or create markets;
- Improving cooperative management skills;
- Providing up-to-date market, financing and technology information; and
- Opening in political ways more favorable trade channels.

Beside the agricultural component of this study, we want to focus on a product range that suits the eco- and agro-tourism. Agro-tourism is certainly not the life jacket of rural life, but it is without doubt one of the most fruitful methods for continuing rural life and supporting traditional land use and lifestyle. This is one development possibility for peripheral areas like Velez and Pliva that have not many alternatives for economic development because of the great distance that separates them from the markets and because of the unfavorable production conditions. An agro-tourism related product range could include the following:

(2) Product Range for Agro-tourism

- Seminars about flora and fauna;
- Lavender farm trips;
- Farm visit for lunch or tasting milk, meat, cheese, brandy, etc.;
- Farm lodging;
- Herb and mushroom picking;
- Bird and wild animal watching;
- Horse riding;
- Hunting;
- Milking and cheese making;
- Bee keeping;
- Wine tasting; and
- Antiques agricultural museum....

Last category contents a product range that fits for agricultural purposes (i.e. in terms of agricultural economics it is financially sustainable) and enables an additional income if marketed to farm tourists.

(3) Product Range for Agricultural Reasons and Agro-tourism

- Organic farming - long term;
- Harvesting of apples, plums, peaches;
- Harvesting berries;
- Herb and mushroom picking;
- Sheep Searing;
- Milking & Cheese Making;
- Lavender Farm Trip;
- Bee Keeping;

- Local food restaurant network;
- Farm Lodging; and etc.

2.2 1st Approach - Access to the Market

Market could be defined as the world of commercial activity where goods and services are bought and sold on a competitive basis. There are different kinds of markets:

- Penetrated market - those in the target market who have purchased the product;
- Target market - the segment of the available market that the firm has decided to serve;
- Available market - those in the potential market who have enough money to buy the product;
- Potential market - those in the total population who have interest in acquiring the product; and
- Total population.

A first step to improve the economic conditions of the rural community would be an Agricultural Development Strategy combined with the right product range that has the potential to reach the market; beside the penetrated market, the target market and later on the potential market.

Besides focusing on different categories of clients, we have to look on the physical market places for farms products:

- Marketing on the farm to the final consumer;
- Marketing on the farm to the trader;
- Marketing in the village/neighborhood;
- Marketing on the nearest urban weekly market;
- Transport and sale to processors;
- Transport and sale to wholesalers; and
- Transport and sale to retailers by avoiding the margin of the wholesaler.

There is no overall solution how to get farm products to the market, as we have to differentiate between needed sales volumes and farmer's ability to deliver to a given marketplace.

Often co-operations with other farmers are the most cost effective way to reach the final consumer. Pooling production through a cooperative arrangement, selling bulk to a wholesaler,

or marketing into a supply chain system may be the best way to move any sizable quantities of product.

As we have in BiH as well as in our Study Areas not many high-volume commodities, farmers may look at specialty opportunities such as restaurants, farmers markets, and community supported agricultural projects where they could sell their limited quantities.

Product improvement will be needed to address these customers.

Different approaches to get access to the market include:

- Studies to find out what is working for other similar, successful operations and to know how competitors succeed. Farmers have to produce what the market demands and should not try to sell what they have produced;
- Visits to the persons or business that might purchase farmer's produce. Reality checks to see how people shop at the point-of-purchase, at the retail store, at the farmer's market, at the restaurant that could be interested in farmer's products. Elaboration what the wholesaler expects from a supplier;
- Comparison of the existing competitors products regarding price, quality, design, shelf life, etc. Identification of additional benefits along the entire market chain; and
- Calculation in exact costs of production.

At the beginning farmers will have to deliver their products to where the customers are. A long term strategy would be to bring the customer on the farm. On-farm marketing is a great way to eliminate the extra costs associated with a middleman and realize more return on farm products. In exchange, it is often time and labor consuming. It is an excellent option for farm families who enjoy socializing, have under-employed relatives and several on-farm products to sell.

A characteristic feature of agro-tourism is the fact that there is no need to transport the product to the consumer, but the consumer comes to the product and consumes it in the place where the product is offered - on the farm. Often he additionally purchases some of the tasted specialties before going home.

2.3 2nd Approach - Local Products That Attract Visitors to the Specific Area

Some areas in the world are well known for their agro-food products: The Champaign in France for Champaign, Bordeaux for the red wine, Parma in Italy for Parma-ham (prosciutto), and so on.

Bosnia and Herzegovina is rich in traditional cuisine and has a lot of unique products such as mijeh - cow cheese in sheep skin, slivovica - brandy, filled pepper with kajmak, govode suho meso - dried smoked beef, burek - a kind of a strudel filled with meat or potato or spinach, blatina - red wine also from Mostar area, and many more.

To make these products more popular, they must be better known by tourists. One way would be to put small explanations on the menus so that tourists get more familiar with the local kitchen. And a next step would be to offer these dishes or its main ingredients nicely and safely packed on the market so that tourist may take them home.

Local specialty shops with BiH branded products are foreseen on the Sarajevo airport, in Mostar and Medjugorje. Well-known Bosnian products would be an additional attraction to visit BiH. Hence having these tourists coming to BiH, they have to be guided to the Study Areas Pliva and Velez. Local products would be one of the best ambassadors of a specific area.

2.4 3rd Approach - Products and Activities for Farm Visit

Agro-tourism, also known as entertainment farming, is becoming a popular way to attract customers and bring more income to the farm. The following ingredients are necessary to attract farm visitors: a unique landscape, nice farmer's family, good meal with traditional homemade specialties at the farm, opportunity to purchase the already tasted farm produce and eventually an opportunity to stay overnight.

Entertainment means more than just offering farm products; clients want to get incorporated in entertainment activities on a farm. These activities can include U-pick crops, horseback riding, bed & breakfast, or regional harvest festivals. People are often attracted to nostalgic images of farming; even if farm-types vary from area to area (also within BiH), agro-tourists are often

looking for a traditional, autochthon farm with a barn, livestock, and an old tractor out front. Local traditional construction materials should prevail such as timber and stones.

An attractive offer of farm products and activities in the farm could strengthen the economy of rural areas and decreases the dependence of rural inhabitants on agriculture.

2.4.1 Products That Attract Tourists to Farms

Typical farm products in BiH could be for examples milk, meat, cheese, brandy, etc. Eco-tourists will be attracted if these products:

- Taste well;
- Are produced on the farm and in a nice way (no pig slaughtering to be shown, rather the “smoking hut” for the meat later on);
- Differ from “industrially produces” items; and
- Are available for sale on the farm.

It is necessary to strengthen the food technology know-how by training courses so that the quality of production will meet market needs. Beside better and safer production, some emphasis has to be put on marketing of these typical local quality agricultural products i.e. those with identifiable quality attributes, which raise the product above the basic 'commodity' level.

That may include the formation or development of collaborative groups to market quality products, marketing of organic products, consumer and quality assurance schemes, and specialty foods, regional or local branding of foodstuffs, etc.

2.4.2 Activities That Attract Tourists to Farms

Tourists are more and more interested in recreation possibilities away from overcrowded tourist regions, and experiences and adventures that differ from everyday working life and routine. These tourists are often urban inhabitants whose standard of life is above average and who have higher education. Often these tourists have children and want them to make contact with nature.

Having this target group in mind, the following farming and entertainment activities could be developed by farmers:

- Antique farm equipment in action
- Barn tours
- Ball games
- Bee keeping
- Bicycling tours
- Birding/wildlife
- Catering special events
- Cider pressing / tasting
- Charcoal burning
- Cooking demonstrations
- Cross country skiing
- Picnics
- Dude ranch
- Hunting and fishing
- Farm lodging, bed and breakfast inns, camping
- Flower shows / nurseries
- Hay rides (horse or tractor)
- Handicraft courses (pottery, carpentry, etc)
- Harvesting apples, plums, peaches
- Harvesting berries
- Herb and mushroom picking
- Hiking
- Horse pulls
- Horse stables and riding (pony or small local autochthon breed)
- Lavender Farm Trip
- Local food restaurant network
- Milking and cheese making
- Petting zoo
- Pumpkin painting
- Sheep shearing
- Show dairy
- Sleigh rides
- Snowmobiling
- Swimming in rivers or lakes rather than swimming pools
- Theme trails - mountain flora trail, geo trail, sports, "Milky Way"
- Tractor pulls
- U-pick farms
- Wineries/distilleries/breweries
- Wood carving
- Working farm tours
etc.

Additionally to farm lodging there is another activity that is worth to be developed. BiH is rich in given up villages. A specific farm activity could focus on the renovation and development of villages and protection and conservation of the rural heritage. Similar activities happen in Switzerland in mountain regions. Around 1980 an earthquake destroyed big parts of South-Tyrol villages in Italy and many international students spent their summer vacations to work for free on restoring these cultural heritages. Old stone houses in the area would be worthwhile to be reconstructed; later on they could serve as farm lodges.

To better promote cheese and milk the idea of a theme trails - "Milky Way" seems to be interesting. "Milky Way" could be a guided walking tour of 8km in total with 3 - 4 farm-stops;

each farm specialized on one type of cheese (hard cheese from cows, goats, and sheep); cheese tasting and slivovica would be a highlight of each farm visit. Finally the tourist will buy some of the tasted products. - If tourists were getting tired, some short cuts would be desirable. - Similar projects have been realized abroad; for example the “Veltliner Strasse” in Austria, where tourist would walk through vineyards with some wine tasting opportunities in the villages where they are coming through. “The Olive Tree Route” is a similar cultural project based on the totemic tree of the Mediterranean in Italy. These trails and the landscape would then promote the Bosnian gastronomy.

Opposite to the nostalgic images of farming could be modern energy farms.

Chapter B 3. Tourism Resource Management of the Study Areas

3.1 Community Initiative In Tourism Resource Conservation

If stakeholders in the subject area realize that they are the ones who get the largest benefit from the resources, they would become the most interested in the conservation of tourism resources. Therefore, if the local communities take initiative in the eco-tourism development in the Study Areas realizing potential for obtaining significant income from the activities, they become motivated to conserve the tourism resources.

There are a couple of hunting clubs in the Study Areas. During a series of focus group meetings held in June 2004, a representative from one of the hunting clubs mentioned that they are very keen in the conservation of the wild games. They do several operations for the conservation of the wild animals.

- 1) Setting of the hunting season and controlling illegal hunting;
- 2) Counting the number of animals to identify the species for hunting;
- 3) Guiding hunters and giving them instructions to shoot games that are abundant; and
- 4) Charging hunters for the games they have shot down.

These are reasonable actions for the local hunting clubs. If the wild games become extinct, no club members can enjoy hunting and get revenue from guest hunters. In the same way, fishing clubs are interested in keeping waters clean, lodging families want to keep their neighborhood free from garbage littering.

Collaboration among community, government and experts are important to facilitate an integrated effort for conserving regional eco-system. Experts can be expected from donors, universities, NGOs and government. Resource conservation may need sophisticated and organized observation and mitigation measures against possible damage.

Resources of eco-tourism are not limited to nature, including culture and agriculture. Local community should be the main player for the conservation and sustainable development of all the three elements.

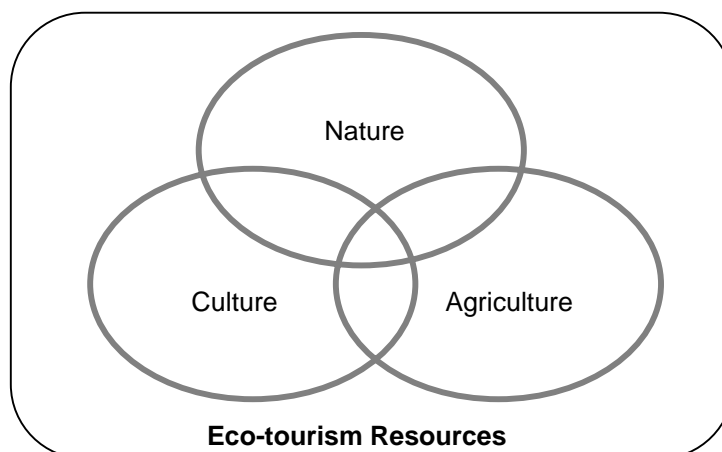


Figure B 3.1 Three Major Elements of Eco-tourism Resource

3.2 Natural Environmental Management

3.2.1 Approaches for Natural Environmental Management

(1) Main Strategies for Natural Environmental Management

Natural environmental management for unique, but vulnerable local natural tourism resources is one of the important basic strategies of the Master Plan.

It could be recognized that natural environmental management strategies of the local natural resources is directly linked to sustainable development scenarios for the Study Areas. Because, any income generation activities such as agriculture, grazing, fishery, and forestry in the Study Areas are heavily relied on the local natural resources such as soil cover, river waters, timber and forests, as well as rocky landscape, and so on. These natural resources are vulnerable for human pressures and interventions by inappropriate resources uses and detrimental management such as illegal logging, illegal dumping, and other adverse environmental impacts.

Some of the local natural resources such as beautiful lake, rivers, and unique mountain views, including untouched forests in the Study Areas, are already facing quality degradations mainly due to the following problems in recent years.

- Scattering municipal wastes along roads and rivers;
- Water contamination related to leachate from garbage dumping and scattering as well as insufficient wastewater treatment;
- Illegal logging and forest fires; and
- Air pollution and landscape problems by smoke emitted by factories.

These are caused by uncontrolled natural resources use, weak natural environmental management capacities by the public sector in the Study Areas, and lack of environmental awareness among local people. Therefore, It is imperative that some effective countermeasures for maintaining and upgrading the natural resources should be taken. The above problems in the Areas could be mitigated through establishing a “Protected Areas Management System” based on the Proposed “Ecological Zoning” for both Study Areas” for controlling inappropriate natural resources uses and for enhancing environmental awareness of the local people.

Concerning the management capacities, existing environmental agencies in BiH as a whole are weak due to complexity and unclear management responsibilities and their functions.

On the other hand, the Study Areas have active and varied community organizations such as Environmental NGOs/Associations, Youth Associations, Women’s Associations, Fishing Associations, and others, although their environmental management capabilities are rather weak. These local human resources and their skills could be used for appropriate natural resources uses and their management.

However, community based natural resources management have no enforcement power for prohibiting inappropriate natural resources uses such as illegal waste dumping and illegal logging. Thus, “a Collaborative Environmental Management Approaches”, which could share the management roles between the governmental agencies and the local communities, as well as local private organizations, would be more useful for the natural resource management for the Areas.

It could be summarized that, the following key approaches for the natural environmental management should be taken:

- Encourage effective local natural resources uses through establishing a “Protected Areas Management System” based on the Proposed “Ecological Zoning”.
- Strengthen institutional framework for nature conservation and sustainable/effective uses of the natural resources by a “Collaborative Environmental Management”.
- Involve local people in environmental planning and management process to enhance a sense of ownership of the local people for the planning and management.

- Train and support the local governmental officials and people as “Natural Environmental Managers” to ensure the sustainability of the management capacities.

(2) Utilization of Local Human Resources for Natural Environment Management

As mentioned above, the Study Areas have many unique natural resources for eco-tourism resources. For example, main river basins such Pliva, Janj, and Buna, waterfalls, caves, and karsts rocky landscape have much potentials as valuable nature tourism products. However, beautiful sceneries are easy to deteriorate by inappropriate human activities such as garbage scattering in the beautiful lake such as Plivsko Lake, Buna River, and other roadsides of the mountainous areas.

On the other hand, management capacities of present environmental agencies at any governmental level (state, Canton, municipality) are weak. The governmental agencies cannot manage natural resources by themselves due to the lack of technical staff and financial constraints. It is inevitable that community based natural resources management, which could be made use of the local natural resource management skills and knowledge, should be enhanced for the Areas.

3.2.2 Land Use Control and Inventory

(1) Land use Control

1) Possible land use conflicts

The requirements for expanding land use caused by urbanization or any development activities will generate conflicts in land use and adverse impacts on the land, if the present agriculture and livestock activities are continued or are expanded. The possible land use conflicts in the Study Areas can be divided into the following three types:

- Conflicts among urban/settlement areas and agriculture/livestock development areas;
- Conflicts among agriculture areas and pasture areas; and
- Conflicts among agriculture/livestock development areas and environmental conservation areas.

2) Planning Issues for land use

In general, land use planning aims at achieving optimal utilization of land as well as coordinating different needs for land use through zoning to meet the future development

objectives. On the other hand, ecological zoning and environmental management planning aims at achieving sustainable and effective uses of the land.

In the Study Areas, any rapid urbanization is unlikely in the near future due to limited potential for job creation and industrial development.

Based on this understanding, the first land use conflict is among the agriculture/livestock development areas and environmental conservation areas such as protected species habitat areas. The second conflict is among the urban/settlement area and agriculture/livestock development areas.

Therefore, the following should be considered as main planning issues of land use from the viewpoint of environmental conservation:

- Coordinate agriculture/livestock development areas and environmental conservation areas; and
- Coordinate urban/settlement area and agriculture/livestock development areas.

3) Basic strategies for controlling land use

Land use conflicts will intensify without control measures. The conflicts cannot be solved properly by market mechanism. It is imperative that the conflicts should be minimized by appropriate planning and environmental management. The following basic strategies should be applied for the Study Areas:

- Basic Strategy 1: Consider a “buffer zone” to mitigate adverse impacts on the wildlife habitat

It is very difficult to draw a clear exclusive boundary between cultivation/pasture areas and environmental conservation areas. For example, habitats of wildlife are under a broad ecosystem/territories than cultivation/pasture areas. In this case, a “buffer zone”, which could mitigate adverse impacts on wildlife habitat by cultivation/pasture activities, should be designated to allow co-existence between competing land use.

- Basic Strategy 2: Give a priority for cultivation/pasture areas than urban/settlement areas

In the case of the conflicts, a basic strategy should give a priority for the cultivation/pasture areas in order to conserve nature based tourism resources for eco-tourism product and development as well as prevent disorder urban/settlement

development activities in the Study Areas. Because it is difficult to prevent possible disorderly development activities under the weak enforcement power of the existing planning and environmental governmental agencies.

(2) Clarifying of the Land Ownership based on Land use Inventory

Land ownership records and laws need to be identified, verified, and most probably restored in order to determine the rightful owners of land and to define the allowable uses of land resources. The location of all project proposals must have the assurance that the land is rightfully owned and that its proposed eco-tourism use is allowable. The feasibility of project financing, construction, and operations depend upon this vital knowledge.

Equally important is the need to accurately identify and define the land uses in the Study Areas. This information is needed for two reasons. First, it is essential to be certain that a proposed eco-tourism project's land use is consistent with the allowable use of the site. Second, it is the need to determine the compatibility of the proposed eco-tourism land use with adjacent property. For example, it is not advisable to locate an eco-tourism facility next to a factory or a timber forest area that is being cut for commercial lumber.

It is imperative to create land ownership and land use maps that accurately identify both land ownership and land use conditions. An inventory of this information can be compared with the legal records and any available jurisdictional land use regulations to determine that a proposed eco-tourism project is both legal and appropriate in the Study Areas.

Furthermore, extensive environmental inventory and management information that has been assembled, mapped and contained in this Master Plan provides an excellent initial response to the Study Areas environmental management needs. This information should be compared with the land ownership map in order to accurately determine the responsible environmental management organization. In some instances, a forest may be maintained by a private lumber company. In others it may be privately owned, and In still other instances it may be owned by a public sector organization. In all cases environmental management capacities and intentions need to be determined in order to evaluate the feasibility of implementing a sustainable eco-tourism program.

3.3 Ecological Zoning

For controlling inappropriate natural resources uses as well as enhancing effective uses of the local natural resources, a “Protected Areas Management System” is usually applied through an “ecological zoning”. “Ecological zoning” is an environmental planning and management tool using spatial / Geographical Information System (GIS) analyses based on natural environmental evaluation by overlaying environmental thematic maps. In this Study, “ecological zoning”, which is primarily based on vulnerabilities of the natural environments in the Study Areas, are applied. However, it is recommended that baseline surveys, in particular, habitat surveys of protected species should be done to improve the proposed ecological zoning, because available data for ecological zoning are very limited of the both Study Areas.

3.3.1 Ecological Zoning Process

(1) Method of Ecological Zoning

1) Process of ecological zoning

Figure B 3.2 shows overall work flow of ecological zoning for the Study.

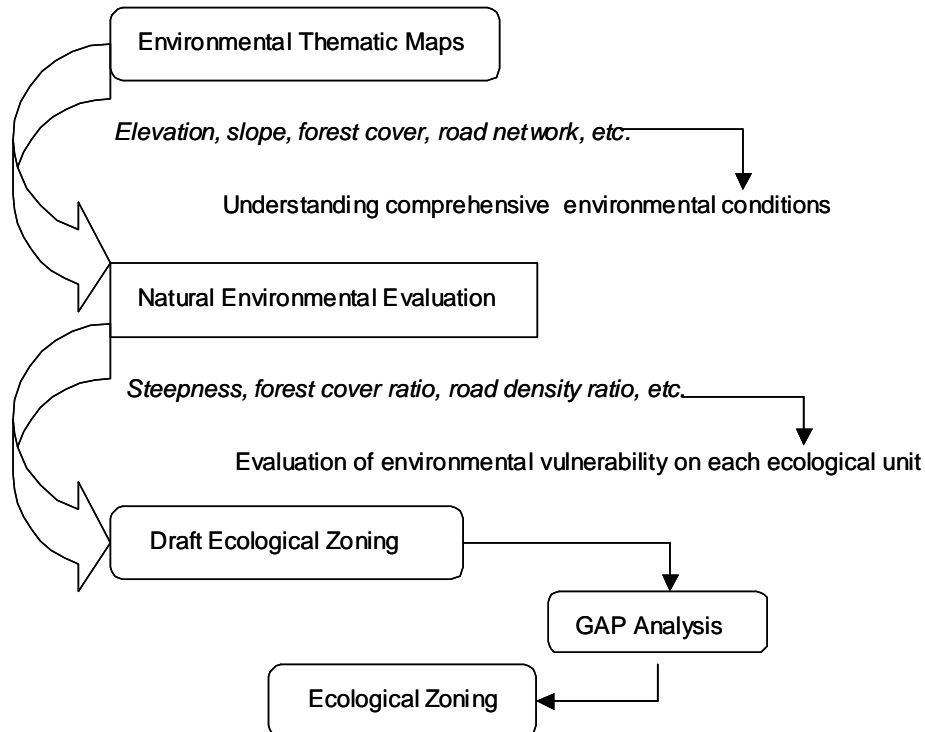


Figure B 3.2 Overall Work Flow of Ecological Zoning

Ecological zoning for the Study, the above work was conducted through the “Ecological Zoning Seminars”, as described below.

2) Ecological zoning seminars

The ecological zoning work was conducted through involvement of relevant governmental officials and technical experts in BiH in order to reach a consensus in terms of the ecological zoning approaches and the results of the zoning as well as to get local environmental information. Furthermore, the Zoning Seminars were conducted as a technical transfer of the Study.

For the above reasons, the ecological zoning seminars were conducted as follows.

- 1st Ecological Zoning Seminar at Sarajevo - May 28, 2004
(Understanding and discussion for ecological zoning approaches for the Study)
- Internal Meeting for Ecological Zoning at Jajce - June 11, 2004
(Technical discussion concerning ecological zoning approaches for the Study)
- 2nd Ecological Zoning Seminar at Banja Luka - June 24, 2004
(Discussion for draft ecological zoning and next steps for the Study)
- 3rd Ecological Zoning Seminar at Banja Luka - September 28, 2004
(Making consensus for draft ecological zoning and next steps for the Study)
- 4th Ecological Zoning Seminar at Banja Luka - November 18, 2004
(Discussion for environmental management based on the proposed ecological zoning for the Study)

(2) Environmental Thematic Maps

For the ecological zoning for the Study Areas, the following environmental thematic maps were prepared to understand present environmental conditions, and to analyze the environmental vulnerabilities in each Study Area based on the available data (refer to Figure B 3.3 to Figure B 3.14).

- Elevation map derived from 1:25,000 geographical map JICA, 2004
(25m grid analysis)

- Slope gradient map derived from 1:25,000 geographical map, JICA, 2004 (25m grid analysis)
- Forest cover map derived from CORINE Land Cover Database, EEA, 2000
- Water body map derived from 1:25,000 geographical map, JICA, 2004
- Road network map derived from 1:25,000 geographical map, JICA, 2004

(3) Natural Environmental Evaluation

1) Evaluation Analysis Unit

The concept of watershed or subwatershed is broadly applied as basic analysis unit for ecological planning/zoning. In general, subwatershed means “a smaller geographic section of a larger watershed unit with drainage area of between around 5 to 35km²”.

However, an ecological unit, which includes ecological functions of watershed, plant distribution (e.g. vertical and horizontal distribution), species habitat, and others, should be applied as evaluation analysis unit for this draft ecological zoning. Because the vulnerability of ecological functions could not be evaluated based only on watershed ecological functions.

Therefore, an ecological unit, which divided by ecological functions taking into consideration of watershed functions, plant distribution, species habitat, could be applied as analysis unit for natural environmental evaluation concerning this draft ecological zoning for the Study Area. Based on the above understanding, the Study Areas could be divided into the following ecological units in each Study Areas.

- Pliva Study Area: 49 ecological units
- Velez Study Area: 46 ecological units

2) Evaluation Indicators

Table B 3.1 shows natural environmental indicators for this draft ecological zoning.

Concerning the Natural Conservation Grade (point) (NCP), it could be applied that if each environmental condition in terms of healthy environmental conservation situation is still maintained (e.g. high ratio of forest cover, high ratio of water body) or vulnerable (e.g. steep slope site, high elevation site) for environmental adverse impacts, each NCP can be given high grade (point).

3) Natural Environmental Evaluation Results

After identifying the above NCP for each indicator on each analysis unit, the following simple formula is applied for calculating the Total Natural Conservation Point (TCNP) for each analysis unit:

$$\text{TNCP} = (\text{NCP}(\text{EFC}) + \text{NCP}(\text{SG40}) + \text{NCP}(\text{AE}) + \text{NCP}(\text{WBA}) + \text{NCP}(\text{RD}))$$

The above TCNP could be applied as comprehensive natural environmental indicator on each analysis unit for this draft ecological zoning in the Study Areas.

Table B 3.1 Natural Environmental Evaluation Indicators

(1)	Extent of Forest Cover (EFC) per ecological unit (%)	Natural Conservation Grade (Point)
Pliva Study Area		
	20% >	1
	20% - 40%	2
	40% - 60%	3
	60% <	4
Velez Study Area		
	10% >	1
	10% - 30%	2
	30% - 50%	3
	50% <	4
(2)	Slope Gradient over 40% (SG40) per ecological unit (%)	Natural Conservation Grade (Point)
	10% >	1
	10% - 30%	2
	30% - 50%	3
	50% <	4
(3)	Average Elevation (AE) per ecological unit (%)	Natural Conservation Grade (Point)
	500m >	1
	500m - 1,000m	2
	1,000m - 1,500m	3
	1,500m <	4
(4)	Water Body Area (WBA) per ecological unit (%)	Natural Conservation Grade (Point)
	0.01% >	1
	0.01% - 0.20%	2
	0.20% - 0.40%	3
	0.40% <	4

(5)	Road Density (RD) per ecological unit (m/ha)	Natural Conservation Grade (Point)
	30m >	1
	20m - 30m	2
	10m - 20m	3
	10m <	4

Source: JICA Study Team

Based on the results of the natural environmental evaluation, the following indicators and threshold were applied for identifying the preservation oriented areas and conservation oriented areas.

Preservation Oriented Area: the area is necessary for preservation: TNCP more than 16

Conservation Oriented Area: the area is necessary for conservation: $12 \leq \text{TNCP} \leq 16$

Figure B 3.3 and Figure B 3.4 shows the TNCP on each area (ecological (analysis) unit) in each Study Area respectively. Based on the above natural environmental evaluation, draft ecological zonings for the Study Areas, which were identified Preservation Oriented Area (POA) and Conservation Oriented Area (COA) were done.

(4) GAP Analysis

The above-mentioned draft ecological zoning is a sound natural environmental conservation zoning. It is necessary to modify the boundaries of the following elements taking into account of the possible development activities and appropriate environmental management unit as well as available data.

- Analysis unit;
- Preservation zone;
- Conservation zone; and
- Development allowable zone.

The above process is called as "GAP Analysis".

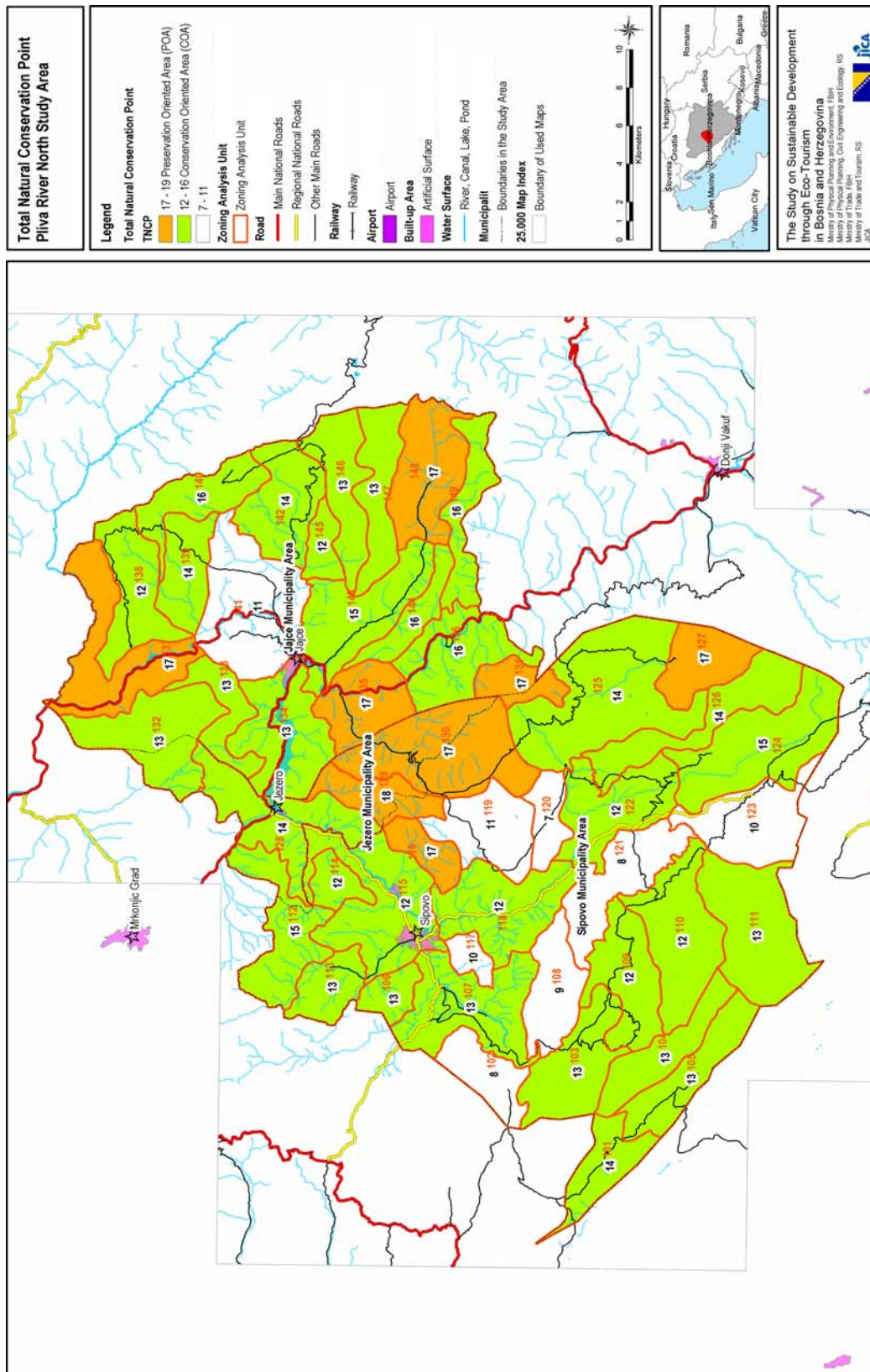


Figure B 3.3 Total Natural Conservation Point (TNCP) in Pliva Study Area

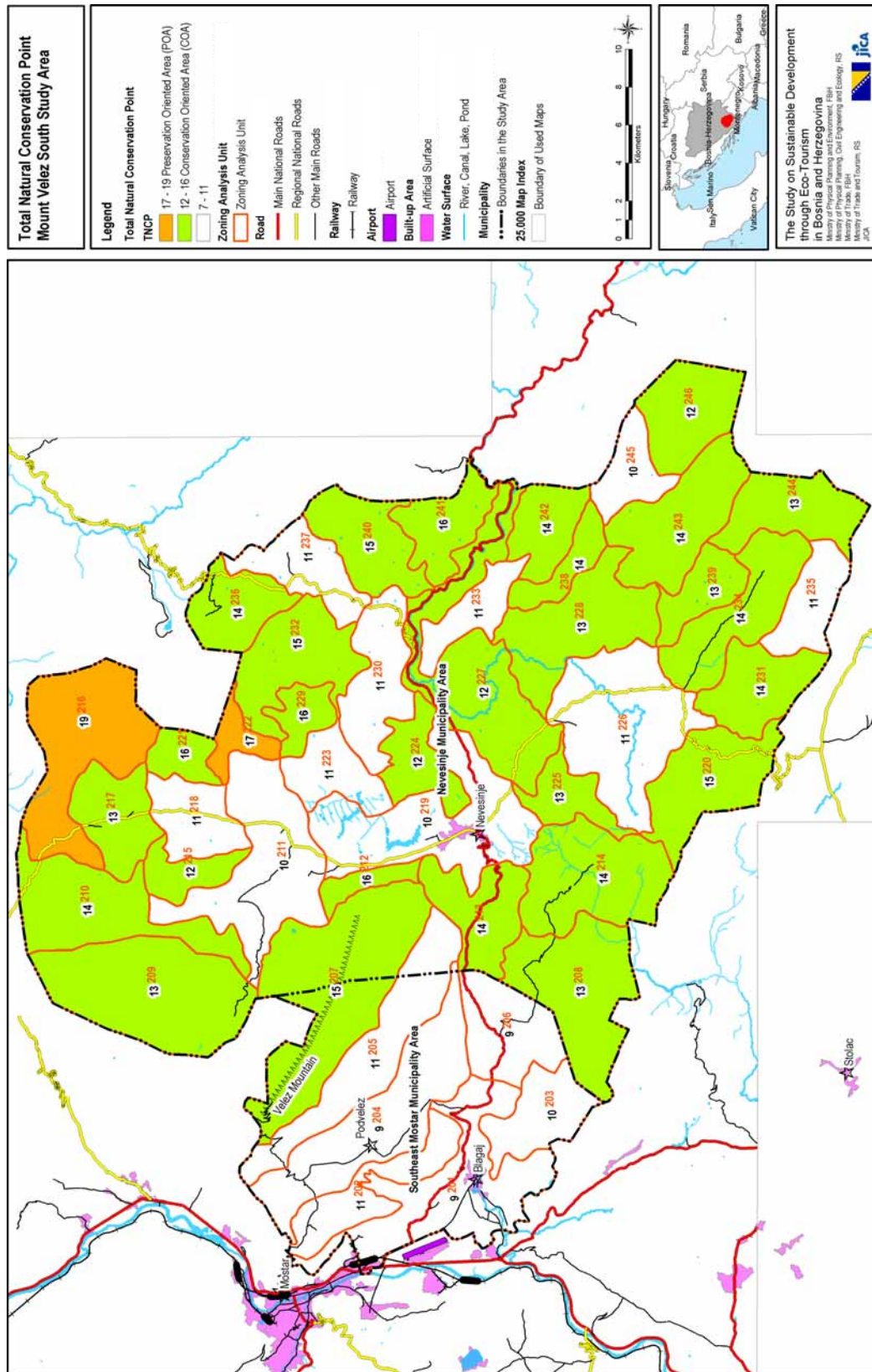


Figure B 3.4 Total Natural Conservation Point (TNCP) in Velez Study Area

3.3.2 Mapping of Various Facotors by GIS

GIS (Geographic Information System) is an appropriate tool for carrying out all of the following in one project.

- Dividing a map into layers;
- Using table data related to Point/Polyline/Polygon in map layers; and
- Analyzing with table data and showing the analysis result of map.

GIS had been already introduced into BiH. Followings are samples of projects which used GIS.

- CORINE Land Cover Database, EEA, 2000;
- Inventory of Post-War Situation of Land Resources in BiH, FAO, 2003; and
- LIFE, Institute of Urbanism, Banja Luka, 2004.

Since GIS is an appropriate tool for the tasks of this JICA Study, a variety of GIS data are available for this study, and a couple of GIS specialists are available in BiH, GIS was used as the tool for this study.

GIS data were collected from several organizations, specially Mapping Project of JICA, EU and Institute of Urbanism in Banja Luka. Analysis and mapping work were done by JICA Study Team.

The total size of the GIS data files are over 60GB now, that is equivalent to 90 disks of CD-ROM. More than half of them (40GB) consists of raster file of 1:25,000 maps (400 dpi) and aerial photos. Full list of digital data is shown in the GIS's chapter in ANNEX 2.

At the same time, on-the-job-training (mainly analysis and mapping) was done to local GIS specialists. Since most of the instruction documents were saved in the GIS data disk too, any ArcView 8.x operator can follow-up the on-the-job-training.

(1) Collected Data

Table B 3.2 shows the GIS related data collected by JICA Study Team.

Table B 3.2 Collected Data Related to Mapping and/or GIS Analysis

ID	Title	Source	Year	Dataset Scale or Pixel Size
1	Satellite Image (Landsat TM)	GeoCommunity	Unknown	28.5m
2	National Environmental Action Plan	Federal Ministry of Physical Planning and Environment, and, Ministry of Physical Planning, Civil Engineering and Ecology, RS	March, 2003	Small
3	Country Boundary	World Geographical Scheme for Recording Plant Distribution	December, 2001	1:1,000,000
4	Bosnien-Herzegowina	Freitag & berndt	1998	1:250,000
5	Inventory of Post-War Situation of Land Resources in BiH	FAO (Food and Agriculture Organization of the United Nations)	December, 2003	1:200,000
6	Municipality and "Mujesha Zajednica (District Office of Municipality)"	Institute of Urbanism, Banja Luka	2004	1:300,000
7	1:200,000 Maps	Vojnogeografski Institut	Unknown	1:100,000
8	1:100,000 Maps	Vojnogeografski Institut	1960-1985	1:100,000
9	1:50,000 Maps (Municipality boundaries are hand-written by counterpart agencies)	Vojnogeografski Institut	1967-2001	1:50,000
10	Geografski Atlas BiH	J.P. Geodetski Zavod BiH	1998	1:500,000
11	"Naseljena Mjesta" of "Mostar Opcina Jugoistok"	Former Southeast Mostar Municipality	2004	1:25,000
12	CORINE Land Cover (Grid data of whole Europe)	EEA	April, 2002	100m
13	Geological Map	Unknown	Unknown	1:200,000
14	Tourism Resource Survey	Institute of Urbanism, Banja Luka	March, 2004	1:50,000
15	CORINE Land Cover (Vector data of BiH & Former Yugoslavian Republic of Macedonia)	Institute of Geodesy, Cartography and Remote Sensing, Hungary, EEA and Ministry of Environment of FBiH	2000	1:100,000
16	Karta Magistralnih i Regionalnih Puteva (Road Map)	Geodetski Zavod u Sarajevu	1986	1:400,000
17	Road Map of Republic Srpska	Road Directory of Republic Srpska	1996	1:800,000
18	1:25,000 Map Index	Mapping Project of JICA		

ID	Title	Source	Year	Dataset Scale or Pixel Size
19	1:25,000 Map (Draft)	Mapping Project of JICA	2004	1:25,000
20	1:25,000 GIS Data (ArcInfo Coverage Format and DXF Format)	Mapping Project of JICA	2004	1:25,000
21	1:25,000 Map	Bojnogeografski Institut	1960? - 1990?	1:25,000
22	Aerial Photos and their Index	Mapping Project of JICA	2003	1m
23	DTM (Digital Elevation Model)	GeoCommunity	Unknown	30 Arc Second
24	European GIS Data attached to ArcGIS	ESRI	2001	1:1,000,000
25	1:2,500 Maps and 1:5,000 Maps of selected area in the Study Areas	Mapping Project of JICA	2004	1:2,500 1:5,000
26	Ortho-rectified aerial photo (2m resolution)	Mapping Project of JICA	2004	approximately 2m

Source: JICA Study Team

Note: Full list of digital data is shown in the GIS's chapter in ANNEX 1.

(2) Developed GIS Database

Table B 3.3 shows the list of developed GIS database for the purpose of this study.

Table B 3.3 Developed GIS Database

ID	Title	Source Data	Dataset Scale or Pixel Size
27	Airport	No. 12 in Table B 3.2	1:25,000
28	Country Boundary	No. 3 in Table B 3.2	1:1,000,000
29	Latitude and Longitude (Every 15 minutes)	JICA Study Team	1:1
30	25,000 Map Index	No. 20 in Table B 3.2	1:1
31	50,000 Map Index	No. 20 in Table B 3.2	1:1
32	Raster Data of 50,000 Map	No. 9 in Table B 3.2	1:50,000
33	Raster Data of 100,000 Map	No. 8 in Table B 3.2	1:100,000
34	Raster Data of 200,000 Map	No. 7 in Table B 3.2	1:200,000
35	Raster Data of 250,000 Map	No. 4 in Table B 3.2	1:250,000
36	Municipality Boundary	No. 6 and 9 in Table B 3.2	1:50,000
37	Major Place Name	No. 9 in Table B 3.2	1:50,000
38	Railway	No. 20 in Table B 3.2	1:25,000

ID	Title	Source Data	Dataset Scale or Pixel Size
39	Road	No. 20 in Table B 3.2 (Some attributes are from No. 8 in Table B 3.2)	1:25,000
40	Waterbody	No. 20 in Table B 3.2	1:25,000
41	Zoning Analysis Unit	Original data of JICA Study Team	1:50,000
42	DTM (Digital Elevation Model)	Developed by JICA Study Team based on No. 20 in Table B 3.2	25m
43	Hill shade	No. 42 in Table B 3.2	25m
44	Slope (%)	No. 42 in Table B 3.2	25m
45	Intermediate and final output of each environmental zoning process	Original data of JICA Study Team	1:25,000 - 1:100,000
46	CORINE Land Cover Data (Forest, Built-up area, etc.)	No. 15 in Table B 3.2	1:100,000

Source: JICA Study Team

Note: Full list of digital data is shown in the GIS's chapter in ANNEX 1.

(3) Map Projection

All the maps were printed out in the same projection as national geographic map published by Geodetski Zavod of FBiH, RS and Ex-Yugoslavia. The key factors are shown in Table B 3.4.

Table B 3.4 Key Factors of Projection

Geographic Coordinate System	Bessle, 1841
Projection	Transverse Mercator
False Easting	6,500,000
False Northing	0
Central Meridian	18
Scale Factor	0.9999
Latitude of Origin	0
Unit	meter

Source: J.P. Geodetski Zavod BiH

Since the spheroid center of the projection above is different from the one of WGS-84, spheroid transformation parameters, shown in the ANNEX 1., is applied to data in WGS-84.

(4) Equipments

Table B 3.5 shows the equipment used for the GIS work. Internet connection is essential to update Virus definition files, Windows Update, searching software operation and getting 3rd party's texts. One PC with firewall software was used as the Internet router.

Table B 3.5 Equipment

Hardware	3 PCs	RAM	1GB
		CPU	2,8MHz Pentium 4
		Network Card	100Mbps
		Video	up to 1600 x 1200 pixels
		Hard Disk	120GB x 2 (Data Server PC) 80GB (Client PC)
		UPS	not installed
		CRT	19 inch flat CRT for main PC 17 inch normal CRTs for sub PCs
	HUB	Speed	100Mbps Switch
	Wireless Internet	Speed	11Mbps
	Internet Router		Setup on one of the PCs above
	2 Printers		A3 Color Ink Jet Printer x 1 A4 B/W Printer x 1
Plotter		HP plotter in printing shop	
Software	Windows XP SP1a	Update	Automatic
	Anti virus	Update	Daily Automatic
	Fire wall		
	MS Excel 2000		
	MS Access 2000		
	ArcGIS 8.2 - 8.3		

(5) Environmental Thematic Maps

DTM (Digital Terrain Model) and slope data was developed from contour lines and control point data, after error adjusting. Forest distribution map was derived from CORINE Land Cover project. Road and water surface data were derived from 1:25,000 scaled digital map (see Figure B 3.5 to Figure B 3.14).

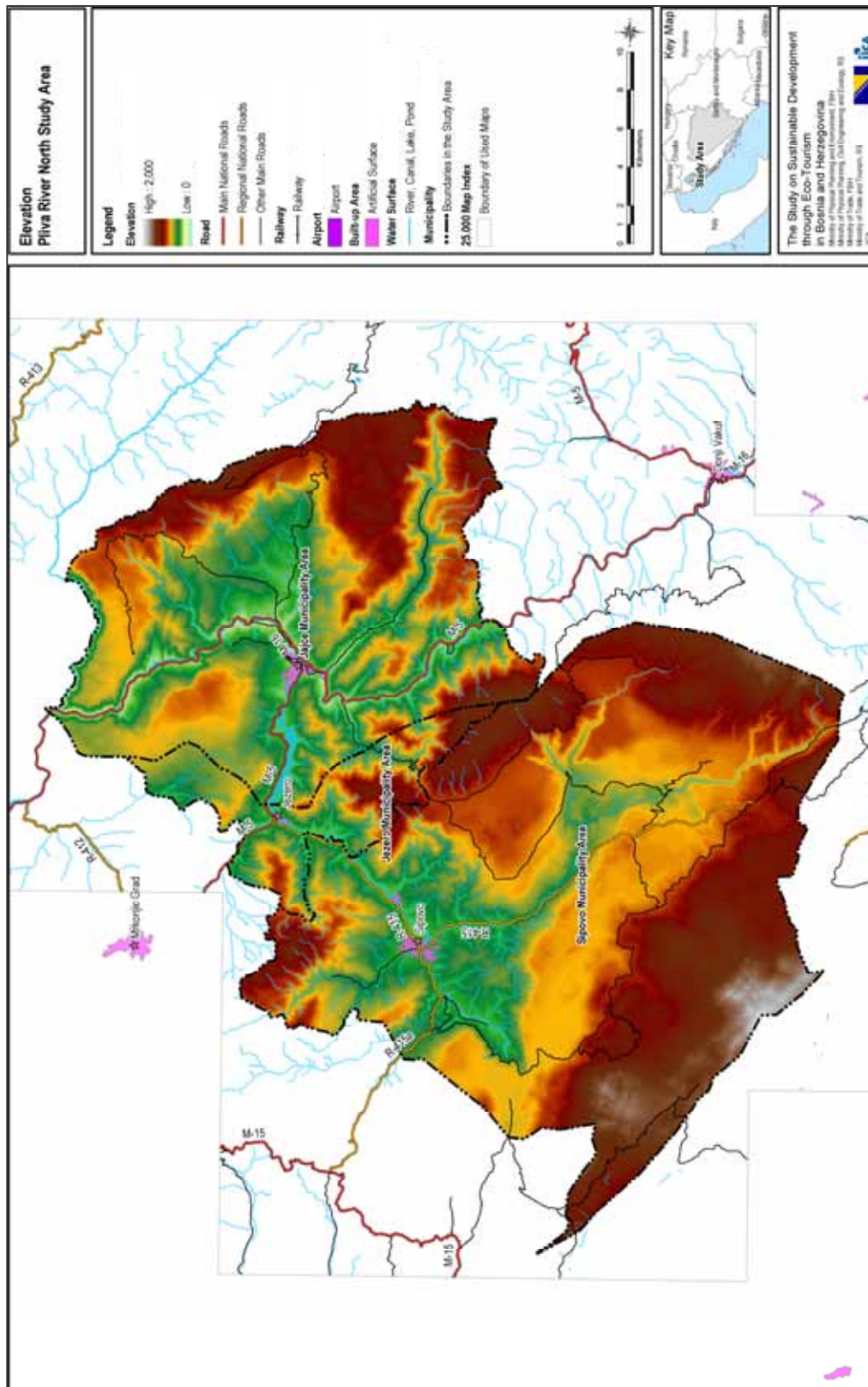


Figure B 3.5 Elevation (Pliva Study Area)

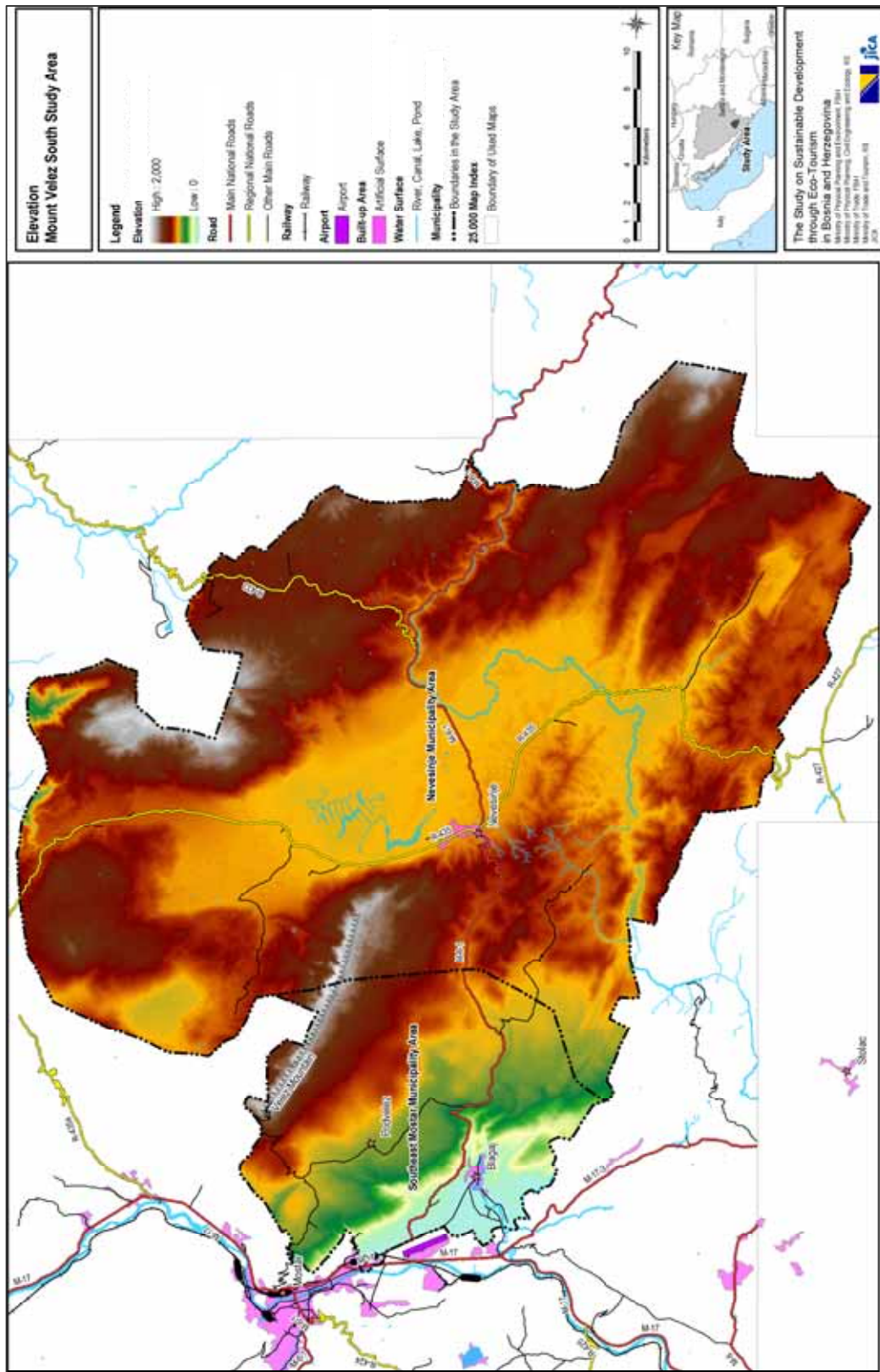


Figure B 3.6 Elevation (Velez Study Area)

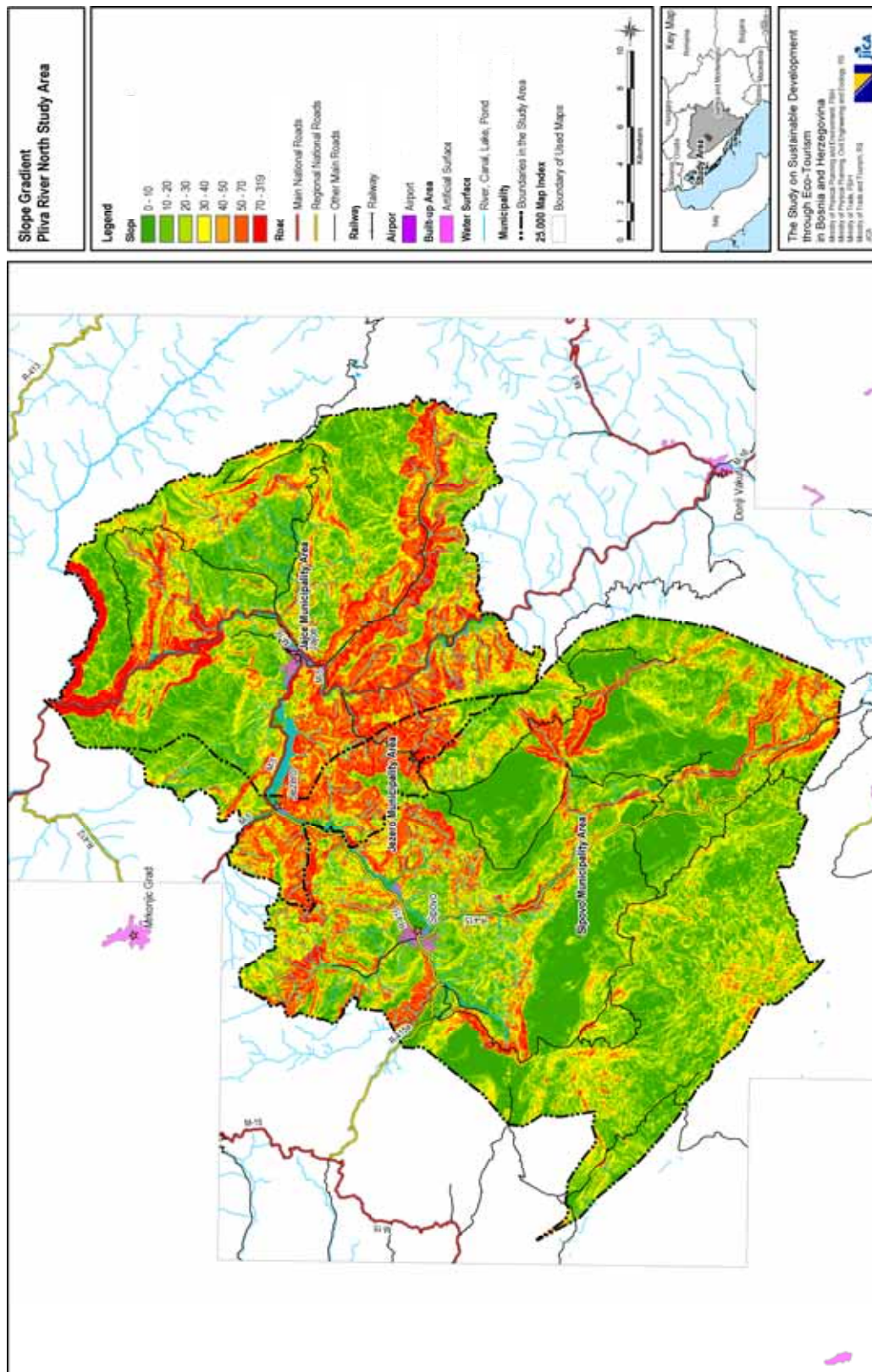


Figure B 3.7 Slope Gradient (Pliva Study Area)

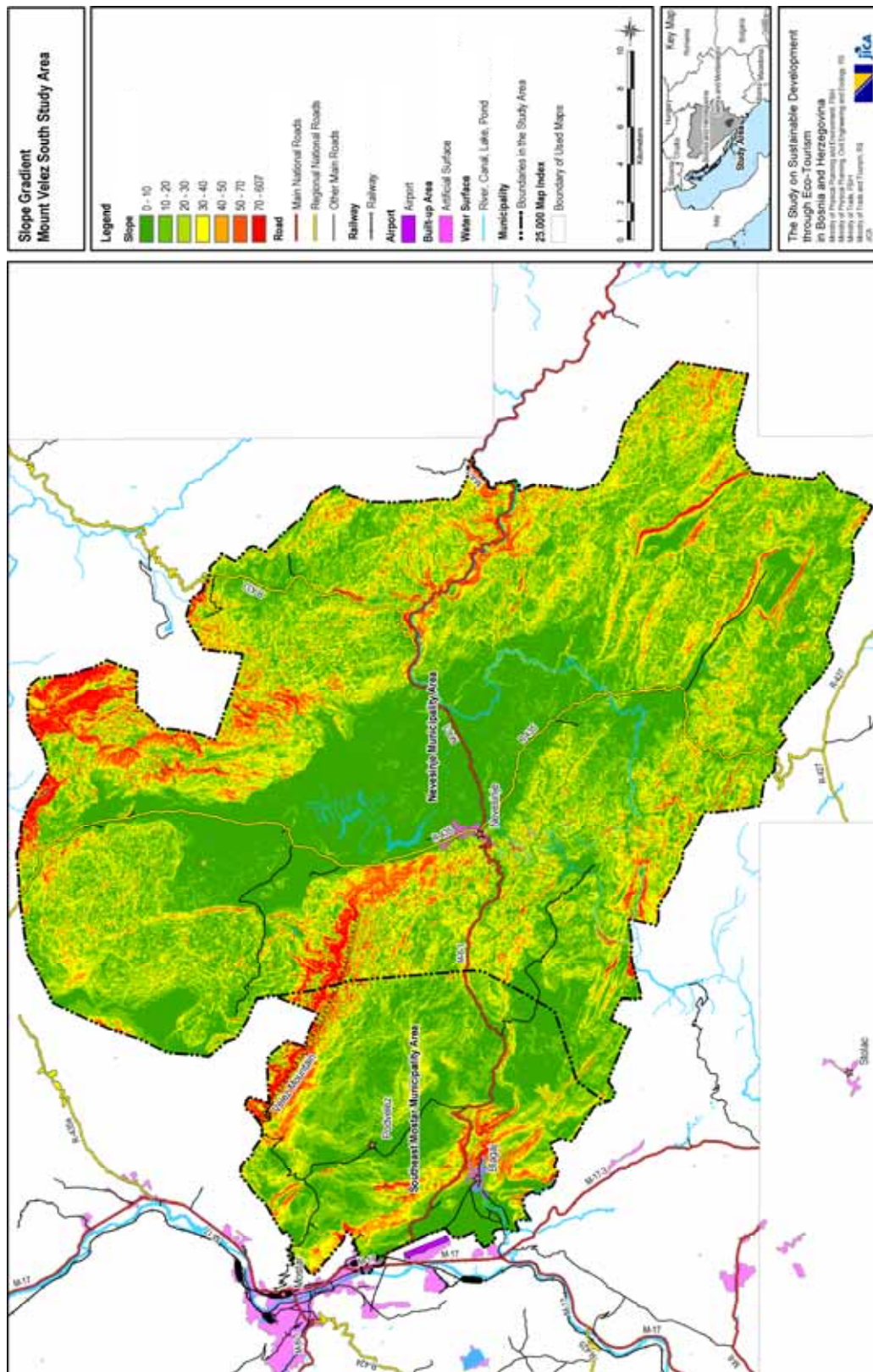


Figure B 3.8 Slope Gradient (Velez Study Area)

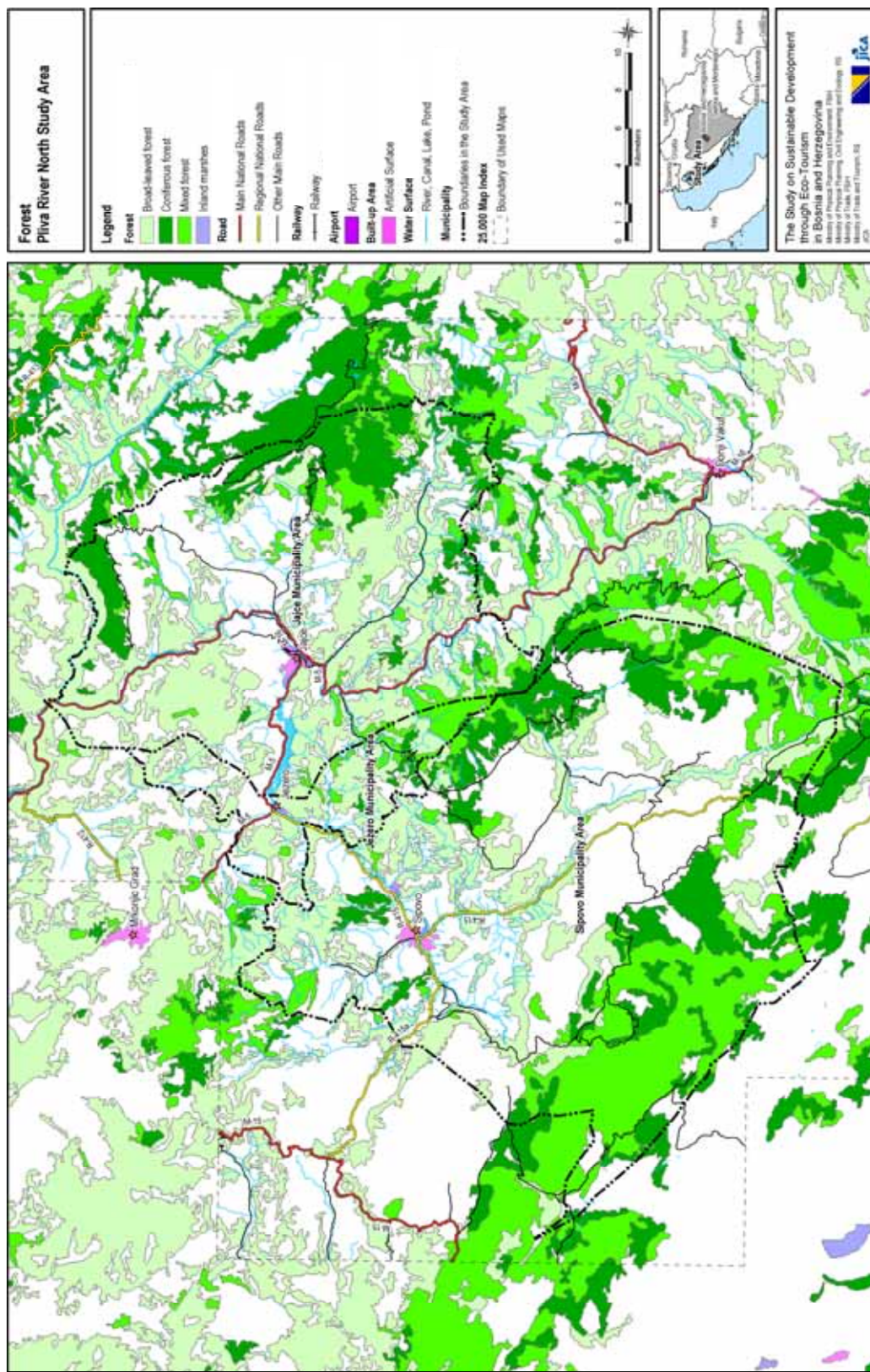


Figure B 3.9 Forest (Pliva Study Area)

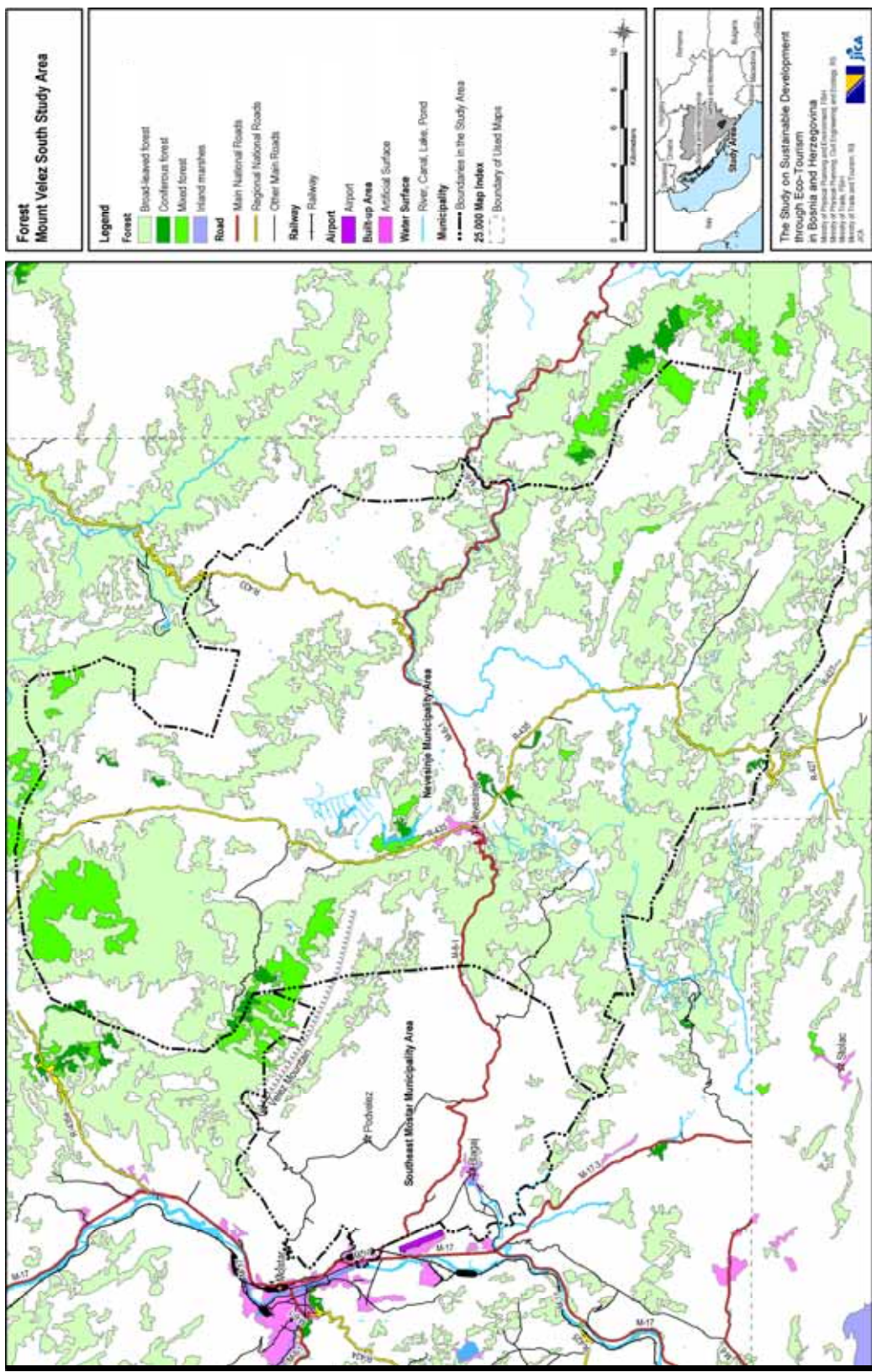


Figure B 3.10 Forest (Velez Study Area)

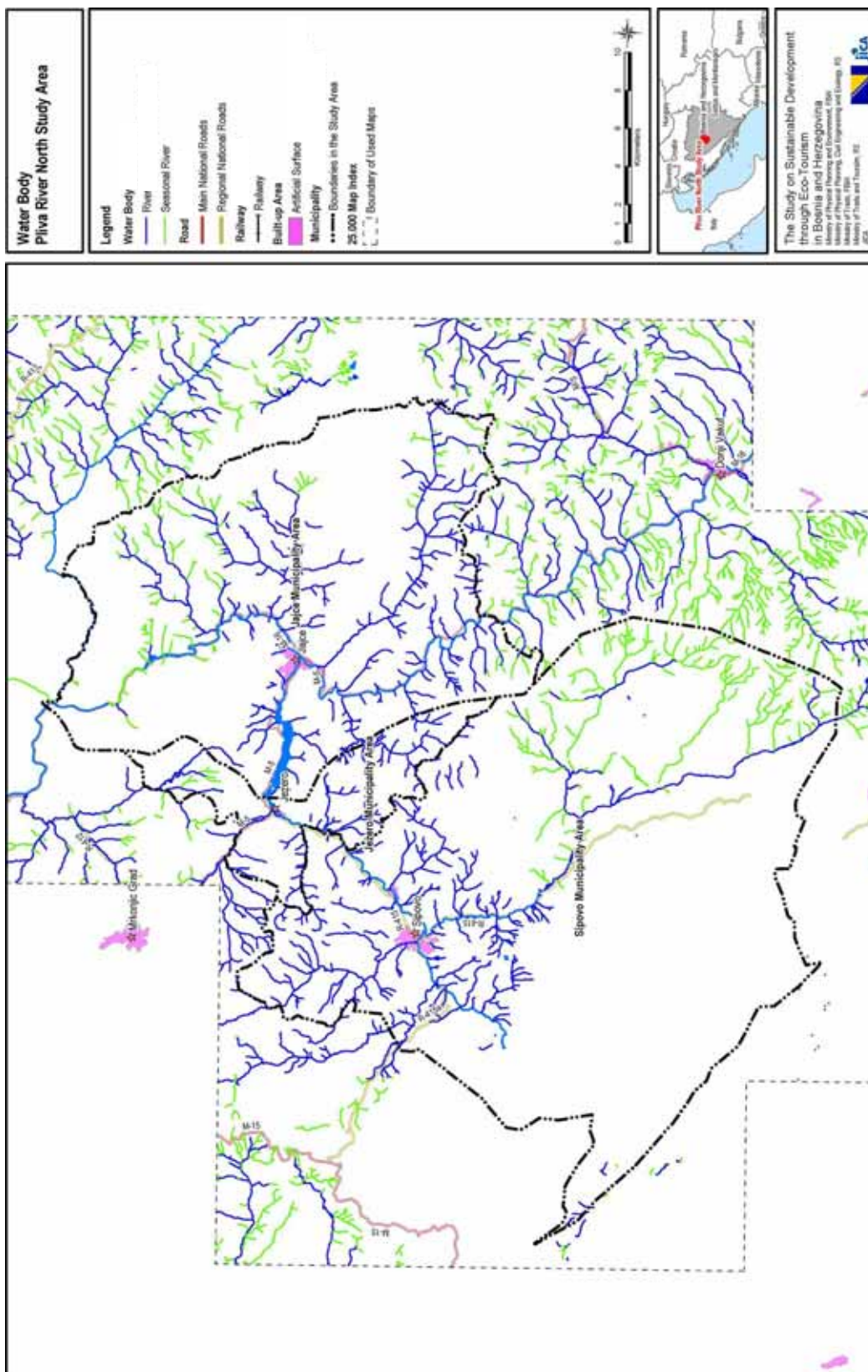


Figure B 3.11 Water Body (Pliva Study Area)

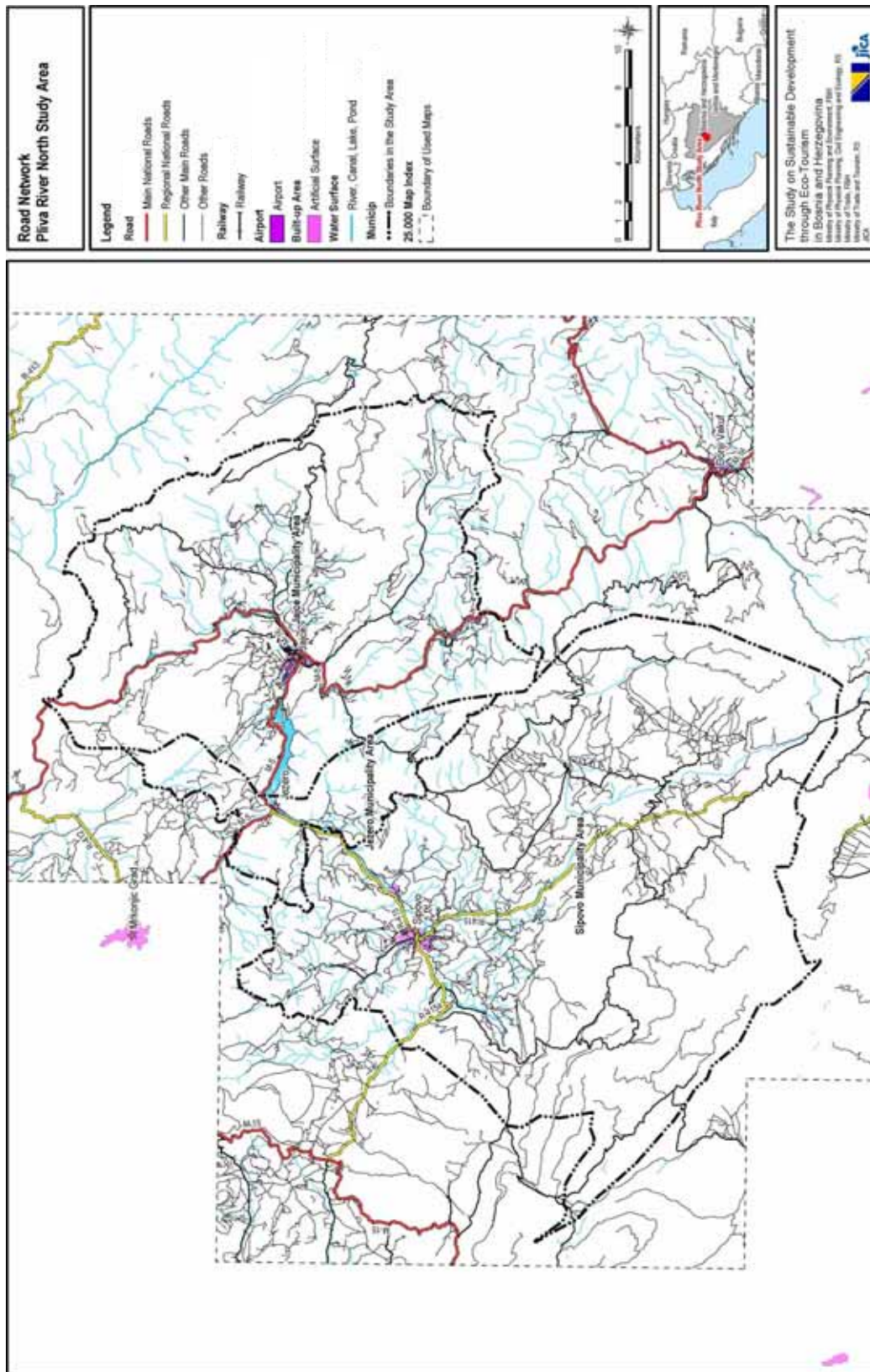


Figure B 3.12 Water Body (Velez Study Area)

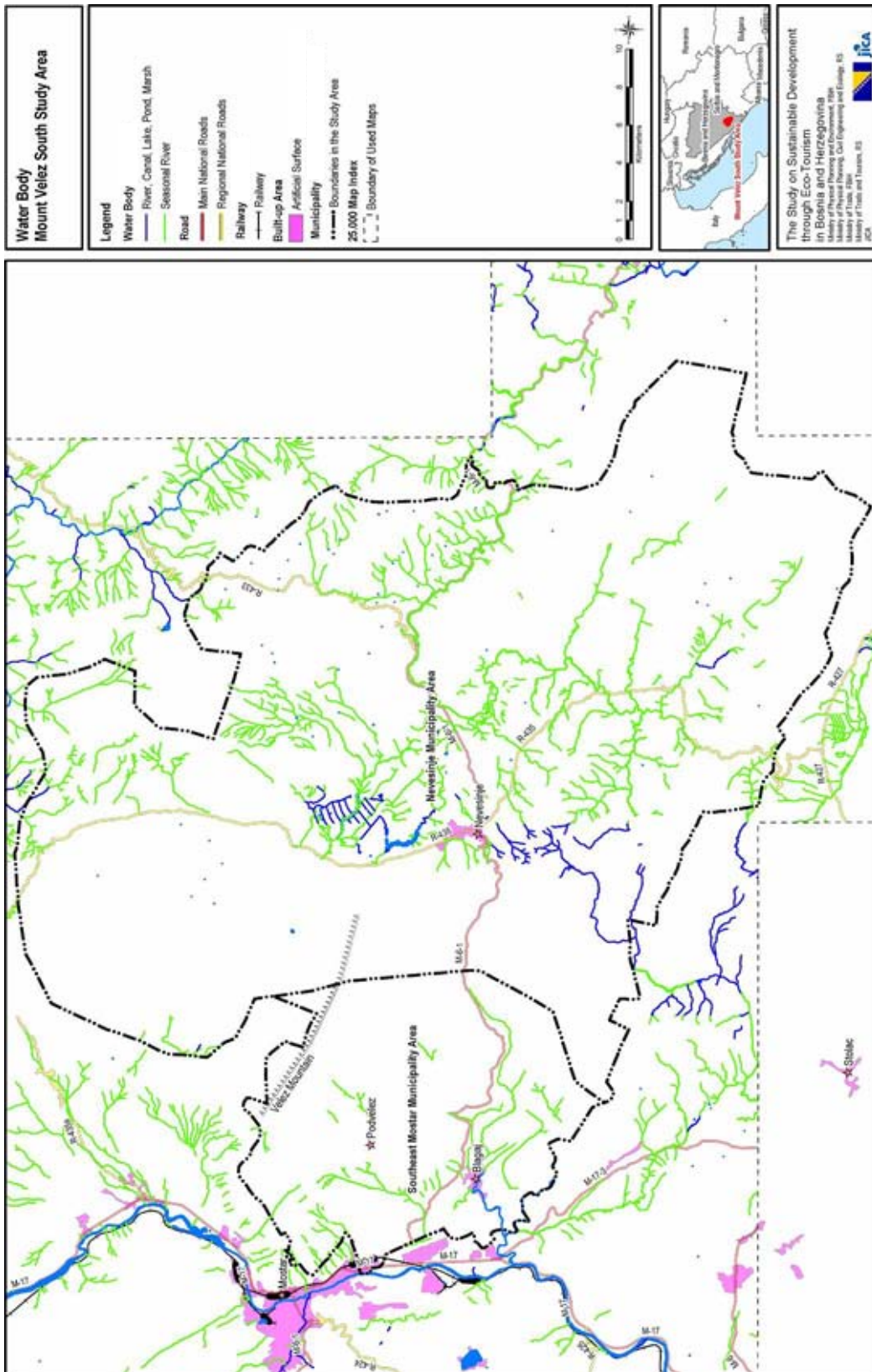


Figure B 3.13 Road Network (Pliva Study Area)

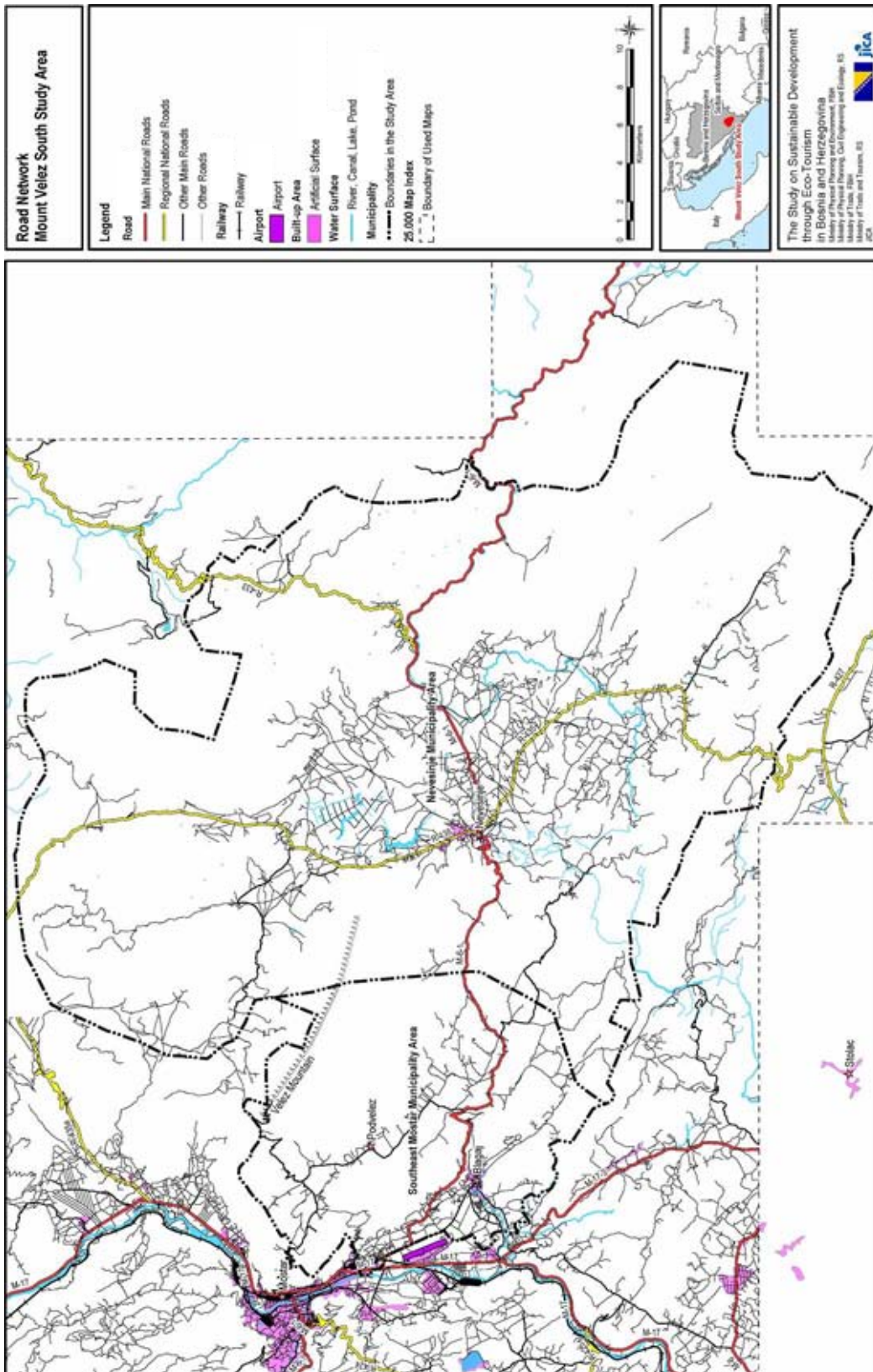


Figure B 3.14 Road Network (Velez Study Area)

3.3.3 Ecological Zoning Results

(1) Zoning Categories

Ecological zoning in general uses the following basic zoning categories.

- 1) Preservation Zone (IUCN category as Strict Nature Reserve / Wilderness Area)
Area of land and/or sea possessing some outstanding or representative eco-systems, geological or physical features and /or species, available primarily for scientific research and/or environmental monitoring (IUCN, 1994)

Preservation zone can be only used for natural resources for scientific research and/or environmental monitoring.

- 2) Conservation Zone (IUCN category as Managed Resource Protected Area)
Area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while the same time a sustainable flow of natural products and services to meet community needs (IUCN, 1994)

Conservation zone can be used for the natural resources taking into account the sustainable use of the resources and any mitigation measures for possible adverse environmental impacts.

- 3) Development Zone

Development zone can be used for the natural resources without special countermeasures for possible adverse environmental impacts.

(2) Zoning Results

Based on the above-mentioned zoning categories, the ecological zonings for the both Study Areas are proposed. This section describes in terms of the area and basic designation method for each zone of the proposed ecological zoning for the Study Areas.

The ecological zoning maps and their contents are explained in Chapter D 4. (Vol.3, Part D) for the Pliva Study Area, and Chapter F 4. (Vol.4, Part F) for the Velez Study Area respectively.

Table B 3.6 shows each area by proposed ecological zone for the Study Areas.

Table B 3.6 Areas by Each Proposed Ecological Zones

(Unit: ha)

Region (Study Areas) Zoning Categories	Pliva Region				Velez Region		
	Jajce	Jezero	Sipovo	Total	Nevesinje	Southeast Mostar	Total
1. Preservation Zones	-	-	57	57	-	-	-
	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
2. Conservation Zones							
(1) Authorized Conservation Zones	-	-	241	241	-	-	-
	0.0%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%
(2) Vulnerable Forests Areas	19,435	3,693	26,111	49,239	40,414	1,334	41,748
	56.7%	58.3%	48.0%	51.8%	41.6%	6.4%	35.3%
(3) Vulnerable Natural Areas except Forests Areas							
a) Natural Grassland	-	176	6,761	6,937	1,644	2,655	4,299
	0.0%	2.8%	12.4%	7.3%	1.7%	12.7%	3.6%
b) Moors and Heathland	-	-	345	345	646	5,607	6,253
	0.0%	0.0%	0.6%	0.4%	0.7%	26.7%	5.3%
c) Sclerophyllous Vegetation	-	-	-	-	39	-	39
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
d) Transitional	247	83	5,265	5,595	16,383	5,511	21,894
	0.7%	1.3%	9.7%	5.9%	16.8%	26.3%	18.5%
e) Bare Rock	27	-	-	27	255	305	559
	0.1%	0.0%	0.0%	0.0%	0.3%	1.5%	0.5%
f) Sparsely Vegetated Areas	-	-	-	-	2,158	838	2,996
	0.0%	0.0%	0.0%	0.0%	2.2%	4.0%	2.5%
(4) Steep Slope Sites	2,427	505	1,144	4,075	860	174	1,034
	7.1%	8.0%	2.1%	4.3%	0.9%	0.8%	0.9%
(5) Significant Water Sources Sites	-	-	74	74	-	36	36
	0.0%	0.0%	0.1%	0.1%	0.0%	0.2%	0.0%
(6) Significant River Basins	1,119	458	4,505	6,082	-	779	779
	3.3%	7.2%	8.3%	6.4%	0.0%	3.7%	0.7%
Sub Total	23,256	4,915	44,445	72,616	62,399	17,240	79,638
	67.8%	77.5%	81.7%	76.4%	64.2%	82.2%	67.4%
3. Development Allowable Zones	11,037	1,424	9,910	22,371	34,845	3,743	38,588
	32.2%	22.5%	18.2%	23.5%	35.8%	17.8%	32.6%
Total	34,293	6,339	54,412	95,044	97,244	20,983	118,227

Source: JICA Study Team

1) Preservation Zones

In the both Study Areas, only one zone, which is called a core zone (IUCN Category I-a (Strict Nature Reserve) of "Virgin Forest Janj" and is located within the Sipovo Municipality, could be proposed as the "Preservation Zone". The zone is the only 0.1% in area of the total Sipovo jurisdiction area, but also identified by "Management Plan for forests with special purposes in the strict natural reservations "Janj" and "Lom" - Final Report, Zoran Maunaga, December, 2001". The Plan was prepared by the World Bank - The International Development Association (IDA) funded research work.

2) Conservation Zones

i) Authorized Conservation Area

An area of administrated natural reservation (IUCN Category I-b), which surrounds the “core zone” of “Virgin Forest Janj”, is 237.8 ha, and is proposed as one of the “Conservation Zones”.

ii) Vulnerable Forest Areas

It can be designated by the following conditions:

- “Broad-leaved forest” or “Coniferous forest” or “Mixed forest” areas by CORINE;
- Land Cover Database, EEA, 2000; and
- The area is located in more than 1,000m elevation.

iii) Vulnerable Natural Areas except Forest Areas

It can be designated by the following conditions:

- “Semi Natural Areas” areas by CORINE Land Cover Database, EEA, 2000; and
- The area is located in more than 1,000m elevation.

The “Vulnerable Natural Areas except Forest Areas” includes the following areas by the CORINE Categories:

- Natural grassland (rough ground);
- Moors and heath land (bush, shrubs, and herbs);
- Sclerophyllous vegetation;
- Transitional woodland/shrub (bush/herb with scattered trees);
- Bare rock (cliff, rocks); and
- Sparsely vegetated areas (high-altitude vegetation).

iv) Steep Slope Site

The area is more than 50% of the slope gradient.

v) Significant Water Sources Sites

The areas are water sources and the surrounding sites of the Pliva River and the Buna River.

vi) Significant River Basins

The areas need conservation to prevent water contamination from the erosion/sedimentation in the mountain areas. The areas are of 500 m buffer zone from the center points from each main river (Pliva River, Janj River, and Buna River).

3) Development Allowable Zones

The zones are not above “Preservation Zones” as well as “Conservation Zones”.

3.4 Urban Environmental Management

3.4.1 Diagnostics of Present Situation of Both Study Areas in Urban Environmental Management

The foregoing section on Urban Environmental management (Section 3.4, Chapter A 3.) presented current urban environmental management situation in each Entity.

In the subsequent sections (Section 1.4 in the Chapter E. 1, and Section 1.4 in the Chapter C. 1), indicated are environmental responses to increasing pollutant effluents and increasing amounts of Municipal Solid Wastes (MSWs), which pose potential threats to degrading environmental quality of the two Areas.

Through field observations and interviews with responsible officers and inspectors, the Study Team has diagnosed current problems in urban environmental management.

Problems of urban environmental management identified include:

- Lack of an **integrated administration** for execution of environmental policy. Environmental administration spans over Ministries and makes direct execution of coherent environmental policy difficult. Water administration, for example, is yet to see an integrated policy execution, since legally the two Ministries are vested with authority on water resources, use and water quality. Multiple administrative layers above municipality level make execution of coherent and integrated environmental policy further difficult.
- Weakness in (solid and liquid) **emissions legislation** and environmental administration at municipal level. Municipal administration lacks neither environmental professional nor staff, except those engaged in public sanitation. As a result, the Municipality does not grasp field environmental situation - air, water, and soil. In complementing the functional deficiency, the Urbanism Department of respective municipality takes partial environmental jurisdiction in reviewing and giving the construction permit for a physical plan applied in the urban area.

On the other hand, municipal inspectors are engaged in maintaining the environment clean, given certain authority in environmental monitoring and enforcement.

The weakness is partly attributable to present situation of lack of Secondary Legislations on emission standards.

- Lack of **environmental standards** applicable to ambient environment and to point-source emissions.
Respective environmental laws for air, water, and soil are yet to be accorded with **Secondary. Legislations**. Only with those by-laws and schedule, violators of standards be identified and enforcement will be effected

- Lack of private-and-public initiatives in networking **people's awareness on urban environment**.
Emerging CBOs base their activities on its municipality and are less eager to network with the other CBOs within the Area to exert a stronger initiative in environmental improvement. Environmental CBOs have stronger awareness on degrading environment, whose motivation to maintain environment clean need to be addressed by the public authority.

Also identified are an urgent need to respond to urban environment, threatening to be worsening, in particular of solid wastes and water quality. Continual discharge of waste loads - whether they are in the liquid or solid form - accumulated in the ambient environment - takes effect on degrading aesthetic value, and people's perception on quality of life and livelihood.

3.4.2 Positioning of Current Stage of Urban Environmental Management Practices in Both Study Areas

This subsection shows an analysis of environmental management institutions in the context of tourism development in the Areas - Pliva and Velez. It also indicates whether present urban environmental management institution is capacitated to cope with targeted tourism development as envisaged in the Master Plan.

- (1) Present operation of urban environmental management at the municipality level and roles of environmental management delivered by the public authority.

In the domain of public sanitation, water quality and solid waste emissions, municipal inspectors are held responsible for control and enforcement (spotting illegal dumping and

waste disposal and imposition of penalties). However, their role is reactive and incident-driven whenever citizens' complaints are raised and raw water quality exceed designated standards. It is expected to act on municipal environmental management plan, so that more proactive approach could be taken in collaboration with people's initiatives. However, a management plan should include designating stationary monitoring points for water bodies and regular monitoring of illegal garbage dumping practice in the territory of jurisdiction.

(2) Present stage of environmental monitoring practiced by municipalities

It is hard to say even the minimum **environmental baseline data** are monitored by authorities, except the regular sampling and measurement of ambient water quality to be purified for public water supply. There does not seem to have designated stationary points along the major water bodies, neither for air and biota for regular monitoring. The situation places both Areas at the **preparation phase for initiating any environmental management** operations. Skilled technicians and physical/biological staff with analyses equipment would bring own environmental baseline data of respective jurisdictional territory.

(3) Stakeholders of urban environment

Stakeholders of urban environmental management may include citizens (residents), hotel operators, commercial and service business enterprise (including shops and restaurants) and farmers who supply farm and dairy produce. Urban environmental management shall be planned and collaborative initiatives be taken by all stakeholders, as they are also potential beneficiaries of enhanced quality of environment. To strengthen collaboration among all stakeholders, more opportunities of dialog on environmental awareness and town beautification be created and sought.

In summary, current urban management institutional setup of both the Pliva and the Velez Study Areas is very much in its primitive stage. It needs more of skilled professional staff capacitated to formulate management plan in the person's jurisdictional territory and assess requirements of environmental elements to be monitored. Under the prevailing conditions, more emphasis shall be put on enhancing people's awareness on reducing effluent discharges and solid waste emissions both at domestic household level and commercial business enterprise (including hotels and restaurant management) level.

3.4.3 Collaborative Actions for Urban Environmental Management

Based on the above diagnosis and assessment of institutions, urban environmental management can most effectively be done through implementation of following four action agenda.

- To Motivate and encourage citizen's awareness on reducing waste load and emissions to the ambient environment:
For example, organizing workshops gathering women's group, schoolchildren to let them more aware on importance of emissions reduction, rather than collecting garbage after they are discharged. Such individually motivated initiatives contribute to substantial reduction of domestic wastewater effluents and solid waste discharges. This initiative shall be taken in short and long-term perspective.
- To Strengthen people's interaction and dialog with municipal inspectors:
Lacking designated monitoring stations, people's eyes and ears on surrounding environment will help obtain first-hand observations on air, water and biota. Such observations by CBOs, private enterprise and individual citizens greatly contribute and complement official inspection activities in the short-term perspectives.
- To Strengthen collaboration and coordination of environmental protection activities among citizens (CBOs), tourism business enterprises and the municipal government:
Environmental protection activities include rapid water quality monitoring, town beautification activities, and collection of plastic wastes in the rivers and from roadsides. Citizens' volunteer actions, rather than deployment of public services, are encouraged. Such voluntary activities are more effective in reducing wastes discharged, as it motivate campaign participants to discharge less. This initiative shall be taken in short and long-term perspective.
- To encouraged and strengthen River-basin wide collaborative protection activities:
Cleaning the river polluted by garbage can more efficiently and effectively done by river-basin wide activities to be done in time and collaboration with adjacent municipalities. This is particularly true for the three municipalities in the Pliva River Basin.

3.4.4 Urban Environmental Management Measures

In order to support tourism development, the urban environmental management has following measures in the short and long-term perspective.

(1) Short Term

- To improve public response to people's awareness;
- To lay institutional groundwork for initiation of urban environmental management;
- To complete a pilot environmental baseline survey spanning both Entities;
- To improve environmental capacity of municipal physical (urban) planning department;
- To form an urban environmental management forum with representatives of all stakeholders - CBOs, hotel operators, restaurant owners, tour agents and farmers; and
- To train physical (urban) planning department staff, so that environmental constraints are understood and compliance with building code satisfies standards of domestic effluents.

(2) Longer Term

- To establish the above urban environmental management forum as permanent set-up and put more emphasis on river-basin wide collaboration in environmental conservation; and
- To designate stationary monitoring points for observation by citizens and for sampling of water and air.

3.5 The Management of Historic Heritage

This master plan will cover both living heritage and built heritage. Each Study Area has a major heritage town included, Jajce and Blagaj, with minor additional heritage resources scattered across the rest of the two respective Study Areas. The focus of this master plan will be partly on the built heritage buildings contained in these two towns. Each town has numerous *listed properties* with a few on the *endangered list* so it is important to strengthen heritage management structures. This master plan proposes new institutions to accomplish this. In addition, this master plan will also include activities related to the living heritage [called traditional or non-built heritage] of the two Study Areas, better known as the various arts, crafts and traditions of these areas.

3.5.1 Some Guiding Principles

The principles contained in this master plan relate to the successful use of heritage for recreational and tourism-related purposes in a fully participatory and sustainable fashion. The master plan reflects the following key issues.

The Key Issues for historic heritage and eco-tourism.

- **Heritage includes the built spaces and also living heritage:** Heritage is not only buildings. The heritage resources include man-made buildings and villages, related sidewalks, plazas and fountains, the production of arts and crafts, and also festivals and commemorations, plus the living traditions of the different ethnic groups including their religious celebrations and feast days.
- **Commercial use of heritage sites and buildings can be beneficial:** Good heritage use can be commercial. It is possible for traditions to be featured in businesses and public events if they reflect authenticity, good taste and respect for all local cultures. Heritage can create jobs.
- **Preservation can be funded in part through commercial use:** Good heritage use can be profitable. Good management of heritage resources for commercial purposes can generate funding for preservation work ensuring the sustainability of the very same resources.

The old towns of Split, Dubrovnik and even of Sarajevo and Mostar are well-known examples of thriving historic districts that are successful for growing recreational and tourist use. There is a progressive shift in the orientation of the businesses in these historic districts from serving the needs of locals to serving the needs of higher-income tourists. The local people gain valuable market knowledge on the tastes and needs of tourists and slowly transition their businesses accordingly. They also gain a deeper appreciation of the value of heritage in their own history. If the communities in the Study Areas grasp these concepts they will be able to develop heritage-based eco-tourism in the old towns on a sustainable basis.

3.5.2 The Key Players

Many players are involved in the management of heritage. The table below shows how both government and private entities are involved, and how players exist at both the local and national levels. As a community-based initiative, this eco-tourism plan will focus mainly on what local players can accomplish rather than on what the national players can accomplish. It proposes the designation of a *heritage captain* in each area to promote heritage-related activities. The table shows the different players having responsibilities that can relate to heritage.

Table B 3.7 Heritage-related Organizations

Level	NGO / Private sector	Government
Master plan captain for heritage	Eco-Pliva Association in north, NYI, Podvelez & Blagaj communities in south	Not applicable
Local level	Local organizations for heritage preservation, youth, arts & crafts	Heritage or tourism officer of each municipality
Regional level	-	Canton Tourists Community
National level	National organizations for heritage preservation, youth, arts & crafts	Commission To Preserve National Monuments CPNM in Sarajevo [National heritage custodian]

Source: JICA Study Team

(1) Drawing on Public Institutions

In the Pliva Study Area the master plan's agent for heritage is the Eco-Pliva Association, which will designate an officer to promote the use of heritage according to the proposals of this plan. In the Velez Study Area the NYI can fulfill this role in Nevesinje. These *heritage captains* must work with the tourism officers [or heritage officers] within the municipalities to lobby in favor of projects. At the regional level, the captains can work with the Canton Tourists Community, if there is any need. At the central government level, they can turn to the CPNM, the central government authority, for assistance and guidance in implementing any proposals connected to heritage resources. These heritage captains will have to readily seek CPNM help when promoting projects, and when overseeing their correct implementation. The CPNM is fully familiar with the condition of the monuments in both of the Study Areas.

(2) Drawing on Private-sector Interests

In addition, a major public-private collaboration is needed. This master plan is a community-based initiative, relying on the initiative of tourism, sports, and nature-related associations, and involves a number of youth and culture-related ones. Other sections of this master plan rely on the actions of many local clubs and associations. Nearly all of them are private, locally based organizations from the NGO world.

In addition, the strong backing of overseas Bosnian societies [refugee groups], business groups, business councils and chambers of commerce is also recommended. When funding

of projects is a problem [usually the case], the heritage captains can help organize appeals for contributions from Bosnians abroad, banks, hotels, restaurants and other businesses to fund the projects of the master plan. Private citizens living abroad and businesses will have a growing role in managing cultural assets and the heritage captains can obtain their financial support and also their moral support to implement good heritage practices.

3.5.3 The Built Heritage - Historic Districts

A justification for strengthening the framework to manage the old towns as coherent historic districts is presented in this section. It first discusses the need for new institutions, and then reviews some commonly used tools of conservation.

(1) Strengthening the Management Framework

With respect to the management of the built heritage, the management framework in each Study Area needs to be strengthened in order to protect and restore the valuable built heritage of these areas as which will undergo increased alteration and redevelopment for residential and commercial uses as the tourism industry grows. The character of Jajce and Blagaj old towns is already rapidly changing, and a strong institution is especially needed to insure the long-term integrity of the historical and cultural resources in each of these areas. Without maintaining such integrity, Jajce would risk becoming over commercial in character, and Blagaj a non-descript suburb of Mostar falling far below its potential as a distinctive center for cultural tourism and recreation.

In view of these critical needs the master plan calls for the creation of a new institution in each Study Area in order to better conserve, restore, protect, and share the historical and cultural resources that each one contains. They will be instrumental in controlling new development, and in shaping the look and character of each town for the short term and the long term, as each town's main agents of preservation and sustainability.

(2) Selected management tools

Property inventory

Each recommended institution is described in the following chapters of this volume. There are some common tools that these organizations can organize to make full use of. They can ensure the formulation and management of a thorough **inventory** of the historical and cultural resources in the old towns by the appropriate municipal authority or designated one. A substantial amount of this type of geographic information has been gathered and mapped for

GIS purposes as part of this Master Plan. Based on a competent knowledge of the identity, location, condition, and characteristics of the heritage resources, then a heritage protection can be established.

The inventory will contain full information on the **land ownership** for each heritage site and all properties in the historic districts. This is especially important when the heritage resource is located on private land because of the probable need to create joint management and use agreements that reconcile public utility with private ownership. These types of relationships can provide the unique opportunity for BiH to create specially designated Historic Trust Sites at some future date [the framework proposed for Jajce].

Adaptive reuse of buildings

Subject to certain controls and best practices relating to design and usage, this master plan supports the **adaptive reuse** of heritage structures for recreational, cultural or business purposes. The master plan's heritage captains can work primarily with local municipality officers and NGOs responsible for heritage, but may find it necessary to directly seek assistance from this state-level organization. They will obtain seats on the steering committees of any heritage-related projects in the two respective areas in order to actively monitor the progress of such projects. Fortunately the CPNM in Sarajevo [or one of its field offices] can provide guidance on international practices with respect to the preservation and reuse of old structures. This is the official BiH body representing the nation before UNESCO, and promoting internationally adopted protocols and practices within the country.

Sensitive private investment

An area of particular importance is that of **investment in the old towns by overseas Bosnians**, most of who spend little time each year in the towns, but are investing in houses and buildings. These investors have valuable knowledge of foreign business practices and quality standards and the heritage captains may try to orient their investments to be fully consistent with the proposals of this master plan. Moreover they can provide technical expertise from their adoptive countries to upgrade the overall quality of their projects in Bosnia.

3.5.4 Living Heritage

The area of living heritage is very broad and encompasses museums and exhibits, arts & crafts, the performing arts, commemorations, events and festivals and in general traditions of all kinds held by any of the communities in these Study Areas. It is primarily the NGO

community of the private sector and the religions that are responsible for the different forms of living heritage. Fortunately, a range of organizations is already included in this master plan including scouts, sports and youth groups, women's groups, drama and arts groups.

The Eco-Pliva Association, NYI and HNK Tourists Community will strengthen their working relationships with these organizations from the early stages of master plan implementation for several different purposes such as the improvement and merchandising of crafts, the creation of cultural events such as festivals and historic reenactments, and the development of museum programs.

Chapter B 4. Marketing and Promotion of the Study Areas

4.1 Concept of Marketing and Promotion

In order to work out a framework of the effective marketing strategy for the two Study Areas of Pliva and Mount Velez, the following four steps are taken and the necessary exercises made:

- 1) First, to identify what categories of tourism are currently available or can be possible or developed in the Study Areas, in a broad term of definition for tourism such as “nature-based” or “family-oriented” or “culture seekers”;
- 2) Then, under each category of tourism identified, to enumerate all available and potential types of various tourist activities that will appeal tourists and that can be tailored into attractive tourist products;
- 3) Third, to distinguish the current potential market segments to match each tourist activity; and
- 4) Lastly, to work out recommended approaches to be adopted in market development of each target market segments in the two timeframes of:
 - Immediate; and
 - Long term.

The first step identifies three dominant categories of tourism listed by order of importance in each Study Area:

- Pliva Study Area
 - Nature-based tourism;
 - Family-oriented tourism; and
 - Tourism for culture seekers.
- Velez Study Area
 - Tourism for culture seekers;
 - Family-oriented tourism; and
 - Nature-based tourism.

In terms of the current and potential market segments, we discern the three major segments that follow:

- 1) BiH domestic that includes:
 - Locals in/around Study Areas; and
 - BiH domestic all across BiH.
- 2) Foreign contingents in BiH that includes:
 - Diplomats, aid agency staff, NGOs, and SFOR.
- 3) Foreign contingents outside of BiH that include:
 - Regional neighbors of Serbia-Montenegro, Slovenia, Croatia;
 - Western Europe;
 - Central/Eastern Europe, Russia and CIS countries; and
 - Turkey and Middle East/North Africa.

The officers and captains responsible for the proposed projects and programs in each Study Area are expected to work closely with FBiH Tourists Community (FB-TC) and RS Ministry of Tourism (RS-MoT) in devising and implementing most effective marketing and promotion program.

On the part of FB-TC and RS-MoT, they are expected to offer maximum help to those officers in the Study Areas in providing professional introduction and technical advice/expertise as to marketing/promotion deployment across and beyond FBiH and RS.

FB-TC and RS-MoT are also expected to mobilize donor / private sector initiatives such as human resource capacity, contact, professional know how, funding in devising and implementing effective promotion effort for each project and program. One good example of this may be:

- Tourist interview survey executed in July/August 2004 by Canton 7 - Herzegovina-Neretva (interview sites at Mostar, Blagaj, Medjugorje, Neum and Caprljina) by donor fund of GTZ.

Full provision of marketing/promotion collateral is obviously needed, such as pamphlets, brochures, maps, field guides, directories and so on including informative and practical web sites to connect to.

Marketing and promotion on how to attract potential tourists into the target areas are elaborated in details in Chapter E. 5 (Volume 4) for Pliva Study Area and Chapter F. 5 (Volume 4) for Velez Study Area.

4.2 Framework of Optimal Promotion Channels

Tourist resources, attractions and activities that are newly identified or developed in the Study Areas are generally of minor appeal and small in scale when compared to such tourism products well-known in the international market as Stari Most of Mostar or Una River rafting. Jajce Stari Grad in the North and Blagaj Tekija in the South may be the few exceptions already enjoying established renown in the global marketplace.

To make these new tourist products better known all across the potential customers particularly abroad as well as the international tourist industry, priority channels of promotion to be chosen or newly tapped would be:

- Close collaboration with tour operators in the Study Area, all across BiH and in the regional neighbors of Croatia, Serbia-Montenegro, Slovenia - to mobilize their marketing expertise and know-how, established market contact and channels. These are the people who really know the market through their daily business contact.
- Aggressive approach and collaboration with clubs, associations all across BiH, in the regional neighbors and Western, Central, and Eastern Europe. Clubs and associations here do not limit their focus only on sports such as fishing or hunting, but on a broader reach encompassing fraternity, common interest, cultural, natural or academic curiosities, hobbies, etc. – to mobilize their vast networks, contacts and membership.
- Approach and solicitation for listing and introduction of Study Areas, their resources, attractions and activities in major travel guidebooks of potential global market - Western Europe, Americas and Asia-Pacific such as:
 - Guide du Routard, France - French-speaking market;
 - Trescher-Verlag, Germany - German-speaking market;
 - Lonely Planet, Australia - English-speaking market;
 - Bradt Guide, UK - English-speaking market;
 - Let's Go, USA - North American market; and
 - Chikyu-No-Arukikata, Japan - Japanese-speaking market

Most of these travel guides maintain their own web sites as well, where they periodically feature newly discovered attractions and activities to sizzle the interest of readers. Solicitation should be made for web linkup with the Two Study Areas' promotion web sites created as part of this Study Project.

Active approach to BiH diaspora in Western Europe, Scandinavia, Americas, etc. It is well known that a substantive number of displaced BiH nationals or their descendants are scattered all over the world, particularly in the above- cited regions.

Full utilization of “word-of-mouth” publicity and promotion, one of the proven and most effective means in the public relation world, through their community bulletins, periodicals, or papers where available.

One good example to cultivate this market is:

- Arnoro Airline, charter airline company that started operation from summer 2004 to service BiH diaspora in the Scandinavia. The company owned by the same owner who operates Hotel Stari Grad in Jajce.

Chapter B 5. Infrastructure and Facilities for Tourism Development

5.1 Objectives & Strategies for Infrastructure and Tourism Facilities Development

5.1.1 Objectives

Infrastructure and tourism facilities play an important role in supporting ecotourism expected to lead the regional development of the both study areas. The followings are principles to provide appropriate infrastructure and tourist facilities in order to achieve sustainable eco-tourism development for the Study Areas.

- 1) Provide safe, reliable and appropriate infrastructure (e.g. road, transportation, etc) for easy accessibility to tourism attractions;
- 2) Ensure well-adapted designs and procedures for the infrastructure and tourism facilities having minimal impact on natural environment and historical heritages;
- 3) Select the appropriate facilities to encourage visitors' ready awareness, understanding and appreciation of the significance of the tourism attractions;
- 4) Facilitate the administrative role and capacity to create the best adapted infrastructure and facilities by preparing necessary guidelines and direction in cooperation with local communities

5.1.2 Strategies

The following three items as common development measures of infrastructure and tourism facilities are proposed for the both study areas in order to support and encourage ecotourism product development as follows.

- (1) Establishing functional tourism bases in the Pliva and Velez Areas

Location of tourist bases defined as centers for various tourist activities such as accommodation, tour or travel services, visitor's center and should be located at strategic position in each area, taking into account accessibilities to major road and/or tourism attractions and good natural or cultural landscape. These are Jajce and in the south Blagaj and Nevesinje share the role as co-bases. Key elements include:

- Accommodation, which can be in urban areas, in rural ones or even in the wild;
- General travel services such as general information, supplies for sale and public transportation;
- Visitors centers and tourist and sports activities where detailed information and specialized supplies, guiding services and equipment rentals are provided;
- Agro-tourism base offering local products that are processed and sold, plus farm experiences;
- Extra features such as entertainment, shopping, scenic observation points and similar; and
- Supplemental bases on tourist route in order to encourage the tourism network.

(2) Formulating tourism networks

Tourism network aiming at formulating attractive tourism products and enabling tourists to spend longer time in the region is an important factor of hospitality businesses in successful tourism destination. Tourist attractions or potential tourism resources in Pliva and Velez areas should be linked with each other in thematic line based on tourism product development, taking account of small and wider linkages with other regions in parallel. Networking could be developed by the following proposals:

- Regional circuits linking these areas with other destinations in countries or Entities;
 - Northern Inter-regional Circuit (Northern Croatia-Bihac-Pliva Area-Brvas-Banja Luka-Northern Croatia / Dalmatian Coast-Pliva Area-Dalmatian Coast)
 - Southern Regional Circuit (Dalmatian Coast-Mostar-Velez Area (+Ravno/Hutovo Blato)-Dalmatian Coast)
- Local circuits within each area;
 - Pliva Circuit (Jajce – Jezero - Sipovo)
 - Velez Circuit (Blagaj – Podvelez – Nevesinje)
- Access road improvement to points of interest in Pliva and Velez, for touring, sports, and emergency activities.
- Trail networks as a part of tourism products for natural and historical-cultural tourism including nature trails and cultural-historical ones; and
- Information and communication networks play a key role facilitating tourist travel into these areas to purchase the goods and services they offer; this includes web, mobile-phone and standard phone usage.

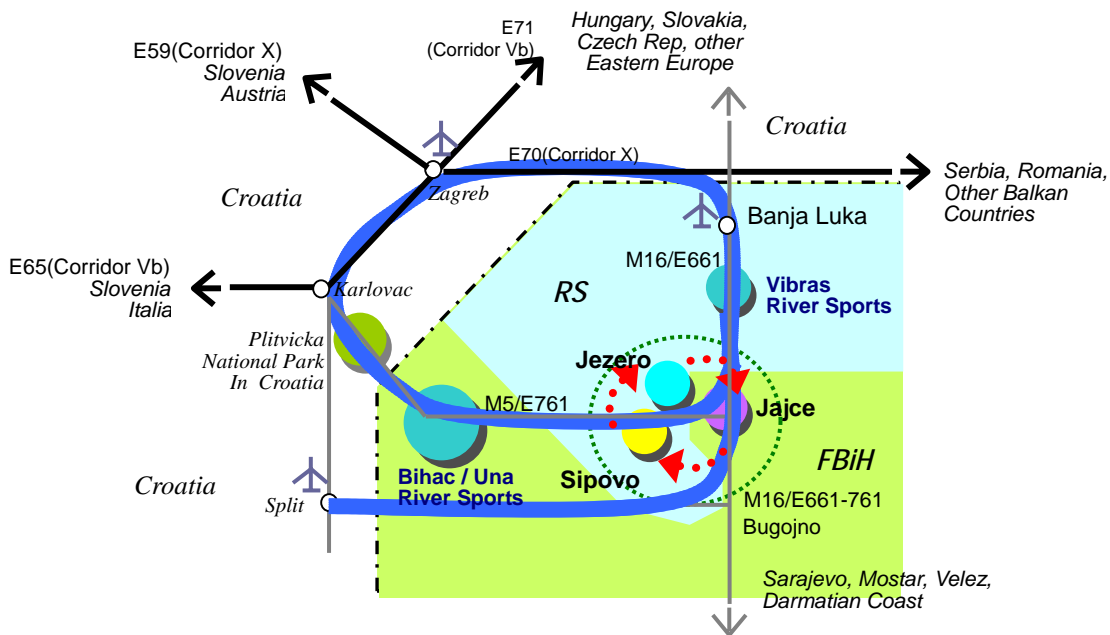


Figure B 5.1 Northern Region Ecotourism Circuits with Pliva Area

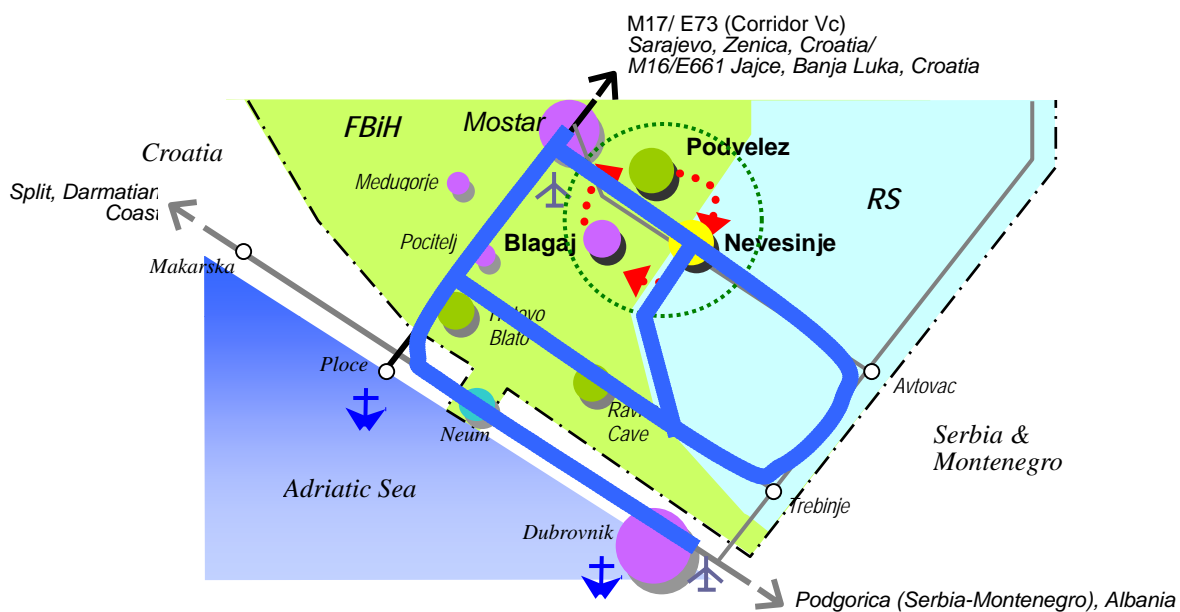


Figure B 5.2 Southern Region Ecotourism Circuit with Velez Area

(3) A focus on high quality

Quality is of the utmost importance for a destination to grow and win more visitors each season. The facilities and infrastructure need to be conceived with these major considerations reflected:

- Tourist safety and security;
- Environmental quality; and
- Visitor's satisfaction.

Table B 5.1 Strategies for Infrastructure and Tourism Facilities

Broad strategy	Associated Measures	Responsibility
1. Establishing or Enhancing Tourism Base	• Providing various accommodation facilities	Private sector (CBO, PE)
	• Developing visitor centers at adequate location in tourist destinations	Local Gov., Private sector (CBO, NGO)
	• Providing agro-tourism bases to encourage agro-tourism business	Private sector (PE, CBO)
	• Developing supplemental bases in order to encourage tourism network formulation	Local Gov., Private sector (CBO, NGO)
2. Formulating Tourism Network	• Improving access road to major tourist destinations	Local Gov. in cooperation with CBO, NGO
	• Introducing access control to major tourist destinations	Local Gov. in cooperation with CBO, local communities
	• Establishing trail system linking with nature/culture attractions	Private sector (CBO, NGO)
	• Formulating tourist circuits by convenient tourist transportation	Private sector (PE, CBO)
	• Providing communication/Information system for tourism products	Private sector (PE, CBO), local Gov.
3. Strengthening Quality Management for Facilities	• Ensuring tourist's safety and security	Private sector (PE, CBO), local Gov.
	• Ensuring environmental quality in tourist destinations	Private sector (CBO, NGO)
	• Providing appropriate tourist facilities to maximize tourist's satisfaction	CBO, NGO in cooperation with, Local Gov. International Organization

Source: JICA Study Team

Note: CBO=Community Based Organization, PE= Private Enterprise,

5.2 Ensuring a high quality tourist product

5.2.1 Ensuring Tourist's Safety and Security

The actual or perceived security of a destination is a key factor to give certain destination's image and reputation to tourists. Perceptions of security can be strengthened by the following preventive measures, taking account careful treatment that avoids giving minus images of tourist destinations:

- Setting up, with the participation of CBO, a collaboration with other parties to look at the issue of land mine prevention and other incidents;
- Close cooperation between tourism professionals and local authorities;

- A poster and message dissemination campaign in a number of languages to prevent incident and crime and detailing the precautions, etc.;
- Provision of information about the dangers and hazards (land mines, others);
- Provision of various forms of monitoring in public places, car parks, monuments, parks and public gardens, etc.; and
- Ensuring that local police are trained to help and support tourists.

5.2.2 Ensuring Environmental Quality at Tourist Destinations

Environmental excellence is gaining in importance in destination management. Good environmental management can be accomplished many different ways including behaviors and use of innovative equipment.

(1) Sewerage and wastewater management systems

Innovative equipment suitable for areas without public treatment networks, is recommended. An example of innovation in this field is the septic tank soaking pit system, which is suitable for use in remote areas.

(2) Environmentally responsible water use management

For the sake of image formation and market strategy for eco-tourism, facilities should have a well-organized water use system. In order to establish environment-friendly accommodation facilities, it is desirable to minimize usage of water consumption of over 300 liter per day per person for bathing, linen service and gardening, etc. EU Eco-label could be one of effective tools to attract the EU market. It is recommended to obtain international certification to compete in the market place.

Box B 5.1 Example: Water Use by Eco-label Operational Criteria

- Water flow from tap or shower under 12 liters per minute.
- No more than 5 urinals flushing at the same time.
- Towels and sheets changes once or twice a week or at request.
- Water plants and garden after sunset or before high sun.
- Waste water shall be treated (relating to sewerage management too).
- Follow local plan for water supply capacity and protection.
- Limited use of material (soap, shampoo, etc) for bathing prone to pollute water resource.
- Awareness to guests by information and their cooperation with smart water use.

Source: The European eco-label for tourist accommodation service / E

(3) Wastewater management for accommodation facilities in the Vicinity of water source

Accommodation, especially medium to large scale facilities, produces a significant quantity of wastewater, both grey-water, which mainly comes from washing machines, sinks, showers, baths and roof runoff, and black-water, which comes from kitchen dishwashing and toilets. In the Study Areas, little of this waste of accommodation facilities is treated, and pollutants such as fecal coliform bacteria and chemicals are discharged directly into the water sources such as Pliva River in Pliva or Buna River in Velez.

5.2.3 Providing Appropriate Tourist Facilities to Maximize Tourist's Satisfaction

(1) A classification system for accommodation facilities

The quality of accommodation plays a large part in the image of tourist destinations. Various accommodations, existing and to be established, in the Study Areas will require standardization, monitoring and supervision to ensure the quality of the services supplied and to enable tourists to be fully informed when they make their choices and fully aware of the services that they are entitled to expect. The following are recommended:

- A classification based on a nationally recognized system that gives every potential customer a guide to the price/quality relationship that they can expect;
- Comparative evaluation of the classifications can be monitored while the quality plan is being implemented;
- Quality labels, codes of conduct (for instance, the use of environmentally-friendly techniques and products) specific to certain types of accommodation to ensure particular quality and help the Study Areas in question to differentiate itself from its national and neighboring rivals; and
- Specific training for their personnel in order, in particular, to improve their customer care and customer information.

(2) Accreditation for facilities standard enforcing related regulations

Accreditation is a process of qualifying, endorsing, and "licensing" entities that perform certification of businesses, products, processes, or services. Eco-tourism certification programs cover businesses, services, and products that secure certain level of quality of business and services in eco-tourism. They focus on individual or site-specific businesses, have standards that are tailored to local conditions, and are largely or totally performance-based certification.

As one of certification program, Eco-label of EU which accommodation for BiH eco-tourism could consider adopting as a future candidate member of EU, offers a scheme where a product or service is awarded an ecological label on the basis of its “acceptable” level of environmental impact. The acceptable level of environmental impact is determined by consideration of environmental assessment. Box D 5.2 describes in synthesis this process.

Box B 5.2 Tourist Accommodation Application to Eco-label in EU Countries

Application

The application pack comprises a verification form and a user-manual, designed to accompany the applicant through the process of application. Applicants must provide a detailed dossier showing how the technical criteria have been met. The verification documents are self-declarations, declarations and other relevant documents from qualified professionals. The Competent Body may make further checks on data submitted. If the application is in conformity with the requirements and the application fee is paid the applicant will be awarded the Eco-label with the right to use the logo inside his accommodation and in advertisements.

Criteria

The criteria are divided into two main sections, the mandatory criteria and the optional criteria. All the criteria in the mandatory section must be fulfilled, if applicable. If it is not possible to fulfill a mandatory criterion, the applicant shall explain why this is the case. The criteria in the optional section need to be fulfilled according to the requirements set out in the scoring system.

Application fee

An application fee is payable when an application is made. The basic fee is 300 EURO to max. 1,300 EURO. Reductions of 75% apply to micro enterprises (with up to 10 employees) and mountain huts and of 25% to small and medium-sized enterprises. The annual fee is based on sales. It shall amount to 0.15% of the annual volume of sales which is calculated as the average delivery price multiplied by the number of overnight stays. Reductions of 50% on the annual fee apply for all companies.



Case of Slovak Eco-label



Source: European Union

Chapter B 6. Institutional and Human Resource Development

6.1 Institutional Development

Tourism generally speaking and especially eco-tourism consists of a broad range of enriching and meaningful experiences and services for visitors to enjoy. This master plan develops a framework to create a broad choice of high quality, competitive eco-tourism activities based mainly on nature-based activities and culturally motivated ones. They rely on a fabric of relationships between official players, commercial businesses and increasingly on NGOs dealing with special interests such as women's welfare, cultural preservation or nature conservation. These institutions are generally unfamiliar with tourism as it has developed internationally in the capitalist countries, and they are even less acquainted with the range of sports and nature-based activities known as eco-tourism.

This master plan considers selected players in the two study areas and proposes some activities to strengthen some of the relevant institutions through different strategies. The municipalities will require programs to build awareness as to the nature of tourism, their own local potentials for eco-tourism activities and steps that the municipalities may need to take to promote sustainable tourism over the short-medium term. The private sector will also need this kind of orientation to best understand its own role. Private businesses are involved, too. They include the hotel industry, tour guide services and also outdoor guiding and sports services such as the mountaineering services. The mountaineering clubs and other sports clubs are key players in the critical area of training outdoor guides.

The newly organized and registered Eco Pliva Association is proposed to take main roles to coordinate the above-mentioned key players for smooth and harmonious realization of the proposing master plan and action plan in the Pliva Study Area.

The proposing Velez Tourism Committee, which will be organized from the proposed implementation bodies of Pilot Projects, Action Plan Projects and Programs and the related local governments, has to take the same roles in Velez Study Area.

(1) Major Role for NGOs

The role of the NGO community is of great importance in protecting historic and natural resources, and in helping deliver benefits of eco-tourism to beneficiaries such as women and

youth. The NGO community may not have been so highly developed in the Yugoslav era, but must expand and strengthen itself in the modern era to steer development and ensure that socio-economic benefits reach these groups and that they are sustainable. NGOs can be extremely effective and influential in areas of training, environmental management and cultural heritage management so they will have a definite role under this master plan in ensuring sustainable use of resources.

(2) Eco-tourism awareness for the general community

All sectors will need to grasp the potential benefits that eco-tourism can generate in their local areas. In addition they will need to grasp how they must work together to improve conditions within their own municipalities, and in some cases how they must work with neighboring municipalities of either entity, to develop successful systems for tourism. The proposals in this master plan are designed to advance the key institutions in accordance with these needs. They will also promote better understanding of hospitality skills, program management skills and of foreign languages.

6.2 Human Resource Development

The training and capacity-building proposals of this master plan have been designed to meet the needs of the tourism products that each study area will be offering. The people providing the tourist services are the most critical element for the success of eco-tourism. The program must develop different types of guides for the activities coming under eco-tourism. In addition there are other positions for which staff must be prepared as well.

Needed Skills: What skills are needed for the required jobs?

To give a sense of the breadth of knowledge to be developed, the following list of subjects presents topics of broad interest to be covered in most of the programs.

- 1) The political system of BiH/Federation;
- 2) The economic system of BiH/Federation;
- 3) Basics of tourism;
- 4) Basic tourism laws of BiH/Federation;
- 5) Geography of BiH;
- 6) History of BiH;
- 7) Monuments and sites;
- 8) Cultural information - both writing and speaking; and
- 9) Foreign language competency.

The category of outdoor guides is of utmost importance. For different types of guides, the following list contains the most common subjects for skills.

- 1) Climate and weather conditions;
- 2) Terrain conditions;
- 3) Way finding - map reading and compass skills;
- 4) First Aid and, if appropriate, Water Safety certification;
- 5) Rescue and evacuation skills and protocols;
- 6) Transport equipment training;
- 7) Communication equipment training and protocols;
- 8) Basic recreation equipment training - binoculars, fire starting, emergency shelter, etc;
- 9) Knowledge of Plants and Animals;
- 10) Backcountry waste disposal;
- 11) Fuel transport, storage and disposal; and
- 12) Food, water and other provisions - their preparation, delivery, and waste disposal.

The following list contains the more specialized area of training that different types of guides will receive.

- 1) Fly-fishing;
- 2) Spin cast fishing;
- 3) Kayaking;
- 4) Canoeing;
- 5) Mountaineering and Technical Climbing;
- 6) Wildlife behavior, tracking, and photography; and
- 7) Herbs and Mushroom identification and collection techniques.

The country lodging families will require training in other specific fields. These include first aid, hospitality services, food & beverage, housekeeping, and simple bookkeeping.

Target trainee populations: Who can fill these jobs?

Because of the high unemployment, there is an abundance of candidates for such training. These include young persons and youth club members, women, members of the sports clubs and nature clubs, and members of culturally oriented clubs such as those for folklore, drama and fine arts.

Who will pay for these training programs?

For Both Study Areas the EPA & PSA and the NYI will need to seek funding from Bosnian agencies responsible for the tourism industry and natural resources management. They must also seek funding from international agencies [EU, Global Environment Facility, etc.] and foreign aid programs [USAID, GTZ, JICA] which have a strong record for funding capacity-building programs. They can emphasize that these training programs may qualify for funding under existing programs per various criteria such as

- Natural resources management;
- Capacity building for small & medium enterprise;
- Rural development or community-based tourism; and
- Pro-poor tourism.

Because ecotourism development is in a pioneer stage in BiH, these training programs could be organized as pilot training programs to be extended to other areas suitable for nature-based tourism like Una-Sana or to the communities inside or near the nation's national parks. The ability of the trainees to pay a significant portion of the course expenses is low so the entire budgets will need to be provided. The pro-poor justification is a strong one since many candidates will be partially or completely unemployed.

