



GOVERNANCE AND PARTICIPATION IN CAMILI BIOSPHERE RESERVE

Gul Gunes

Atilim University, Faculty of Management, Department of Tourism and Hotel Management
06836 Gölbaşı-Incek-Ankara/Turkey

E-mail: ggunes@atilim.edu.tr

ABSTRACT.

Camili Biosphere Reserve surrounded by Karcal Mountains was one of the pilot sites of the “Biodiversity and Natural Resources Management Project” implemented by the Ministry of Environment and Forestry. The first steps of development and implementation of participatory management plans and effective governance mechanisms for protected areas in Turkey were taken during this project.

In this article, the important role of participatory management and effective governance structures in protected areas are emphasized based on the participatory management planning and governance process implemented in Camili Biosphere Reserve. The experiences gained, and the current state of the protected area is discussed and suggestions are made.

Keywords: *Camili; biosphere reserve; governance; management plan; protected area.*

Introduction

Millennium Ecosystem Assessment (2005) showed that over the past fifty years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fiber and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth. Biological diversity must be treated more seriously as a global resource, to be indexed, used, and above all, preserved (Wilson and Peter 1988: v, 3).

It is a scientific truth that Turkey has one of the richest natural heritage in temperate zone with approximately 10.000 plant taxa-one thirds of them are endemic, 160 mammal, 450 bird,

120 reptile, more than 500 fish species and habitats provide living area for them (Guner et.al. 2000, Kalem 2008). Turkey contains a great variety of natural habitats, ranging from Mediterranean, Aegean, and Black Sea beaches to towering coastal and interior mountains, from deeply incised valleys to expansive steppes, from fertile alluvial plains to arid, rocky hillslopes. A myriad of community types and habitat mosaics occur, containing a rich mixture of plant and animal species, many of which are endemic (Guclu and Karahan 2004). The global importance of Turkey’s biodiversity is exemplified by the fact that three ecoregions, two terrestrial (Caucasus and Irano-Anatolian) and one marine (Mediterranean), are classified as Global 200 Ecoregions considered by WWF as the most important ecoregions on earth in terms of their conservation values (UNDP



2009). Turkey has aimed at participating actively and to take in control the trade and conservation of natural and biological resources by signing international agreements at different dates with many institutions (Guclu and Karahan 2004). Turkey signed the Convention on Biological Diversity in 1992 and ratified it in 1997 (Kaya and Raynal 2000, Secretariat of the CBD 2000). However, the biodiversity of Turkey has been deteriorating because of rapid human population growth and associated intensive or unwise utilization of natural resources and habitats (Kaya and Raynal 2000). The most important consequences of these activities are the reduction and fragmentation of natural habitats. People have become alarmed by the prospect of the disastrous consequences of biodiversity loss and committed to the essential need to maintain natural resources for wise and sustainable use (Guclu and Karahan 2004).

Protected areas in which natural and biological resources are conserved cover approximately 5 % of Turkey's surface area (Kalem 2008). Some of them have no effective management plans or regulations and fail to protect resources and ecosystems. Some of them have problems with local communities stemming from lack of proper mechanisms to respond to their needs and expectations. There is an obvious need in these sites for development of participatory management plans, effective governance mechanisms and models to contribute to implementation of good governance practices.

Biodiversity management has traditionally followed two contradictory approaches. One champions ecosystem protection through rigorous law enforcement and exclusion of humans. The other promotes community-based sustainable use of natural resources. Participatory conservation, a major paradigm shift, nowadays strongly guides the concept of

UNESCO Biosphere Reserves (BRs) (Stoll-Kleemann, Vega-Leinert and Schutz 2010). The first steps for development and implementation of participatory management plans and effective governance mechanisms in protected areas of Turkey were taken during Biodiversity and Natural Resources Management (BNRM) Project implemented between 2000 and 2008. The objective of the project was to establish effective participatory planning and sustainable management of protected areas and natural resources at four selected protected areas, one of which is Camili (Macahel) Biosphere Reserve at the border of Turkey and Georgia.

General Overview of Camili Biosphere Reserve Area

The Caucasus region covers the Karcal Mountains designated as one of the 144 important plant areas (IPA) in Turkey (Plantlife 2010). Karcal Mountains are located in the "Colchic Section" of the Euro-Siberian Floristic Region in North Eastern Anatolia, near the Georgian border and is the one of the best representative of the "Temperate Mixed Deciduous Forest of Eastern Black Sea" (DOKAP Final Report 2000). The altitude varies from 350 m to 3,428 m, and the highest peak of Karcal Mountains is also one of the highest in the Eastern Blacksea Mountains (Gokturk, Artvinli and Bucak 2008, Ozhatay, Byfield and Atay 2005). Main features of the area appear as 1) its old-growth pristine forest, 2) sudden altitudinal changes possessing various ecosystems and community compositions, 3) high number of colchic endemics 4) traditional lifestyle which goes in harmony with nature, and 5) wildlife habitats (DOKAP Final Report 2000).

The Camili Biosphere Reserve is located within the municipal borders of Borcka District in the Province of Artvin, 45 km far from the district centre. The area was selected by BNRM



Project to represent Caucasian mixed temperate rainforest and high alpine meadows (Ministry of Environment and Forestry 2007).

The Camili area has been governed at various times by the Byzantine Empire, the Seljuk Empire, Mongols, the Ottoman Empire, Russians, Georgians and now the Turkish Republic. The area was once Christian, having converted to Islam some 700 years ago. Due to their isolation, the villagers have retained many old traditions, reflected in their livelihoods, in the design of houses and farmsteads, in the tools and materials they make and use. Cultural and socio-economic values Camili has for centuries supported an isolated and near self-sufficient local culture that supported over 1,000 people for centuries and has maintained its own traditions, patterns of resource allocation and use. As such the area could be considered a living museum of Caucasian mountain life (Ministry of Environment and Forestry 2007). There are six villages inside the area with a permanent resident population of 1,075 (TUIK 2009). The local population was significantly reduced in the 1980's and 1990's due to emigration of people seeking work mainly in Istanbul and Izmir. Many of these emigrants return during summer period. Some local residents also leave the area in winter and stay in Borecka. As a result the summer population can reach 3,000. Educational level is low; 80% of the population is not educated beyond elementary school. The resident population is generally aged, as young people leave to find work. The main livelihood support activities are agriculture, livestock breeding, bee keeping, non timber forest products (wild fruits, herbs, medical plants, etc.), handicrafts, tourism and paid employment (seasonal employment outside the area at tea production plants) (Adem and Gursan, 2005; Ministry of Environment and Forestry 2007).

The two strict nature reserves within the Camili Basin were designated in 1998 and are managed under the auspices of the Ministry of Environment and Forestry according to National Parks Law. Efeler Strict Nature Reserve is 1,453 ha and Gorgit Strict Nature Reserve is 490 ha. The forested areas outside the two strict nature reserves are managed by the local authority of the General Directorate of Forestry according to Forestry Law. The rangelands and alpine meadows are officially under the management responsibility of the Ministry of Agriculture and Rural Affairs, in accordance with Rangeland Law, although these areas have not yet been delineated legally. The approximate area is 765ha. The site was also designated by the Ministry of Agriculture and Rural Affairs as a genetic reserve in 2001 in recognition of the presence of the pure Caucasian bee race, which is one of the three important bee races in the world. 25,395 ha of Camili basin has been designated as a biosphere reserve by the UNESCO MAB Commission in 2005 through the efforts of the BNRM project (Adem et al. 2007).

The Karcal Mountains, where the Camili Basin is located has several other conservation designations. WWF-Turkey has identified the Karcal Mountains as an Important Forest Area (IFA, No. 5) due to existence of mixed temperate rain forests with pristine old-growth communities. WWF-Turkey also identified the Karcal Mountains as an Important Plant Area (IPA, No. 36) on account of the presence of globally threatened species, species endangered in Europe, overall botanical richness and presence of threatened habitats. Camili falls within the "North East Turkey" IBA as designated by BirdLife International (code TR060) (Ministry of Environment and Forestry 2007).



The most important value of Camili is that it is a virtually closed ecosystem, whose habitats and waters remain in a near pristine state and whose human communities and agro-ecosystems are harmonious with nature. Such areas are increasingly rare in the world and require special care and consideration in management. Unfortunately, ecosystem degradation, land conversion, genetic pollution, aesthetic pollution and degradation in traditional architecture, cultural degradation, intensive logging, unplanned road construction, unsustainable tourism development and weak national conservation policies are some of the threats in Camili basin (Alacam *et al.*, 2007, Ministry of Environment and Forestry 2007).

Experience on Participatory Management Planning and Governance in Camili

The Global Environment Facility (GEF) financed BNRM Project was implemented between 2000 and 2008 by the General Directorate of Nature Conservation and National Parks, the Ministry of Environment and Forestry, in collaboration and coordination with the General Directorate of Forestry and the Ministry of Culture and Tourism. The project supported a strategy based on conserving biodiversity and promoting the sustainable use of biological resources. This was achieved by building institutional capacity and implementing effective and sustainable protected area and natural resource management plans in the four priority conservation sites including Camili (Ministry of Environment and Forestry 2006, World Bank 2008).

Among the activities of the project, negotiations played a significant role to ensure local, regional and national stakeholders' participation to decision making processes starting from the data collection and analysis phase to problem identification and implementation of decisions. During the

negotiations, it was agreed that a new approach is required to consider tourism management in relation to protection of natural resources, sustainable economic production and social equity. The management plan developed proposes a managerial structure ensuring effective participation through collaborative management type governance system. Throughout the entire process the vision, strategic objectives, programs, sub-programs and zoning were made and relevant stakeholders for biodiversity and natural resource management of Camili Basin were involved via participatory meetings with local people and other relevant stakeholders including local administration, NGOs and academicians and experts. This way, it was ensured that the local knowledge and experience were properly incorporated in the management plan (Ministry of Environment and Forestry 2007). All managerial parties from local to national level share responsibility within this managerial structure by providing financial and human capital as necessary. This way, resources which were otherwise not utilized optimally due to lack of effective governance structure at watershed level, have been mobilized and used efficiently and effectively.

Participatory management process

In the beginning of the project, a local management unit (Camili Protected Area Management Authority -PAMA-) was established to develop a protected area management system which addresses values of and threats to biodiversity and local culture and identifies the priorities, objectives and actions for their conservation, including mechanisms for generating and retaining revenues at the site and providing equipment and facilities such as a visitor centre. The next step is data collection. Scientists collected data on flora, fauna and socio-economic and cultural features of the site



between 2003 and 2005 to identify conservation targets.

Main vegetation types of the Camili basin are forest vegetation, humid stream vegetation, subalpine and alpine vegetations, aquatic (lake and swamp), bare rock, agricultural and meadows. Field studies and literature searches in 2002-3 determined that 1,021 plant taxa occur or are likely to occur in the Biosphere Reserve. 25 of these taxa are endemic to Turkey. 145 plant taxa have medicinal and commercial properties, 36 of which are currently used for commercial purposes.

The study area is also rich in terms of fauna. Few faunal surveys had been conducted in Camili before the BNRM Project, which sponsored a survey conducted in 2003. This survey was limited by the inaccessibility of the site in winter, the difficult terrain and restrictions on access to military areas. Surveys in 2002-3 (the first mammal surveys to occur in Camili) identified 12 mammal species, but many more species are known to inhabit areas nearby or are recorded from surveys of similar areas in the same region.

Bird surveys in 2002-3 confirmed 51 species in the area, but the true number is likely to be much higher given the pristine nature of many of the habitats. Further surveys are required. Notable bird species fall into three categories: forest and lowland species, species of subalpine and alpine habitats and raptors. On the other hand, six reptiles, two lizards, four snakes, two fish species have been recorded.

To have socio-economic and cultural description, detailed surveys based on in-depth interviews and group interviews were also made. According to general evaluation, the specific values and assets of Camili that require conservation and management are important ecosystems and ecological communities, old growth forests and temperate rain forests,

extensive alpine and subalpine ecosystems, aquatic communities, fauna such as the genetically pure Caucasian honey bee race, brown bear, chamois, Caucasian black grouse, etc., cultural and socio economic values such as local styles of construction, organic agriculture and recreational and educational values (Ministry of Environment and Forestry 2007).

In the participatory process, initial negotiations regarding the planning topics such as zoning, identification of alternative livelihoods, and establishment of local committees were held during two plenary meetings in October 2005 and March 2006 following a series of focal group meetings with key stakeholders, primarily the local people of 6 villages in the Camili basin. In addition to official administrative bodies and right holders, a wide range of groups (Such as the Caucasus University, villagers, tour operators, visitors, teaching staff, beekeepers, handicraft producers, etc.) have a direct interest in the site. Separate meetings were held exclusive for women in the villages to receive their feedback on the BNRM Project work and to include them to the project work, small grants projects and negotiations.

Based on the evaluation of assets, values, issues and threats, the long-term vision for the Camili Biosphere Reserve was determined as follows:

“Camili Biosphere Reserve is recognised nationally and internationally as an exemplary model of governance through which local communities and stakeholders consciously and actively take responsibility for conservation and sustainable management of cultural and natural values”.

In the light of above mentioned process, six main management programmes were identified in the management plan for the period of 2007-2011. Each plan had a goal that contributes to achieving the vision and addressing the threats.



Within the plan, each programme was divided into specific sub programmes, each with a set of precise actions for achieving the objectives:

- Programme 1: Protection status and boundaries of the Biosphere Reserve.

Goal: To secure formal protected area status for the Camili Basin and to establish a complete and harmonised structure of administrative, private land and management zone boundaries.

- Programme 2: Sustainable use of natural resources

Goal: To ensure a sustainable flow of traditional organic products from Camili for local use and for markets that directly supports the local community and the management and protection of the area.

- Programme 3: Sustainable development and local culture

Goal: To ensure that the development in Camili occurs with the participation of local people and is compatible with the environmental and cultural values of the area.

- Programme 4: Tourism and Recreation

Goal: To work closely with local communities to enable visitors to enjoy the unique nature and culture of Camili in a responsible and sensitive manner.

- Programme 5: Protection, management and monitoring of species, habitats and ecosystems

Goal: To ensure that the natural values of the Camili basin are protected and maintained

- Programme 6: Site Management and administration

Goal: To establish a sustainable and participatory governance and management structure and system to ensure implementation of the

management plan (Ministry of Environment and Forestry 2007).

Zoning of the area was an essential component of the management plan, identifying measures for resource use and protection in each zone, helping to focus activities for the programmes and sub programmes and creating a balance that takes account of legal requirements and physical barriers. Zoning was also conducted through a participatory process with seven main objectives:

- To meet legal obligations for protection and management.
- To protect the nationally and globally important species, habitats and ecosystems of the area.
- To enable certain areas to be used for educational instruction and scientific research.
- To determine areas where sustainable use would support the local traditional economy.
- To allow for nature based tourism and recreation.
- To integrate zoning with the current forest management plan for the area.
- To regulate development activities within the area (Ministry of Environment and Forestry 2007).

After zoning, the operational plan includes detailed action plans for implementing all of the strategic objectives defined under the eight management programmes and 28 sub programmes.

Throughout the management planning process, participatory approach was a different experience for project team. There were serious problems about participation of local community at the beginning due to scepticism about purpose of the process, fears that conservation efforts may challenge local livelihood practices and lack of trust to the project team. The



participatory process helped to overcome these difficulties by establishing continuous communication and consultation mechanisms which created a trusting relationship between the project team and local community.

There was high level of awareness on agricultural, bee-keeping, tourism and hunting regulations among the local community. For instance, there are several house pensions in the Biosphere Reserve actively used by tourists and travel agencies throughout the tourism season from June to October. The bee keepers achieved to acquire organic product certificate for the honey produced in the Reserve in 2012. There was also a high level of awareness on the conservation targets, zoning and the vision of the management plan. On the other hand, there was low level of awareness on biosphere reserve and national parks and other protected area categories. The situation has changed in a positive and constructive way in time. They understood more the value of their natural and cultural heritage. For instance, they actively resisted against hydroelectric power plant construction plans in the area and achieved to legally stop construction of two separate power plants in the Camili Basin. The outsiders started to see the area as a preserved place in terms of the biodiversity where friendly, indigenous people live. The perception of the local administrators like the Regional Directorate of Forestry changed after the area was designated a biosphere reserve in 2005. They started to think about functional planning of forest areas by taking conservation of biodiversity and sustainable use of resources into account.

Formulation of Governance Structure

Successful management of a Biosphere Reserve requires an effective collaboration of stakeholder groups working towards a common set of goals. The work of the BNRM project made progress towards that collaboration, and

then started to think about formalising. Two agencies already had formal management responsibility for much of the territory in the Camili Basin (the General Directorate of Forestry and the General Directorate of Nature Conservation and National Parks), but effective management also required the active support and participation of provincial and local government units and of the local community. Significant steps were taken to establish means for improved community representation, but some concerns remain.

The operation of the governance system therefore was highly sensitive and responsive to the concerns and views of the local community. The strategic objective of governance in Camili was to establish a multi-stakeholder governance system to ensure the implementation and coordination of management plan activities. The biosphere reserve will have a coordinator responsible for participatory management of the Reserve together with the local Biosphere Reserve Commission in coordination with the local Directorate of National Parks and local Directorate of Forestry (Adem et al. 2007, Ervin et al. 2010, Ministry of Environment and Forestry 2007).

The general governance structure for the Biosphere Reserve involves a collaborative arrangement between official agencies and local communities (Figure 1). Major stakeholders were defined as the General Directorate of Nature Conservation and National Parks, the National Biosphere Reserve Commission, the Provincial Directorate of Environment and Forestry in Artvin, the Local Biosphere Reserve Commission, Camili Biosphere Reserve Coordination Unit, and Camili Natural Resource Groups. Details of their roles, duties and working procedures were provided in management plan in detail.



Other activities supporting participatory management

New forest management planning approach was also adopted within the scope of the project. Previously, forest management plans were based on the economic priorities i.e. the timber value of the forest. The new approach includes functional planning of the forestry activities taking into consideration the ecosystem services of the forest such as conservation of biodiversity, regulation of water regime and avalanche prevention. The forest management

Figure 1

plan of the area was prepared based on this new approach in 2004 for an implementation period of 10 years until 2014. This plan identifies the production and conservation forests according to their functions.

Three local committees were formed in 2006 with representatives from 6 villages for effective implementation and sustainability of management plan: bee-keeping committee, sustainable tourism committee and agriculture and livestock committee. These committees later prepared small-grant projects on conservation of the area and providing sustainable livelihoods for local people.

Then an advisory committee including the governorship, regional forestry department, regional environment department, etc. was constituted for the implementation of the management plan. The advisory committee has provided positive contribution to project studies and problem solving. Additionally, different protocols were signed with the Ministry of Agriculture and the Ministry of Culture and Tourism to develop collaborative progress. Institutional participation was also supported by organization of panels, conferences and meetings. To ensure sustainability of the outputs of the planned activities and effective conservation of the area, a training programme

was implemented within the scope of the BNRM project in order to raise local awareness and capacity on biodiversity conservation and sustainable resource use. The program was initiated in 2005 targeting local guides, visitors, pension owners, handicraft tradesmen, park rangers and other key stakeholders with the support of MEF (Ministry of Environment and Forestry), universities and NGOs. In the same year, several study tours to exemplary areas in Turkey and abroad were organized for local communities to show best practices on effective protected area management.

Likewise, a sustainable tourism development strategy was completed in 2007. The PAMA team received an extensive training on the basics of planning and implementation of sustainable tourism in protected areas, and developed the strategy accordingly with contribution of local stakeholders. The plan is a part of the overall management plan and has been an exemplary document for similar studies conducted in other protected areas throughout Turkey.

As a supportive element for building local capacity for sustainability of the project results, a small grant programme was designed and implemented for funding projects of local individuals and initiatives. In this context, fifty small-grant projects (15 on sustainable tourism; 2 on training and capacity building; 22 on bee-keeping and marketing; 5 on handicrafts; 2 on nature conservation based stockbreeding; 4 on biodiversity conservation based agriculture – were supported in 2005. A total funding of US\$ 279,500 was provided to these projects.

The above mentioned aspects of the BNRM project comprise the integrated structure of the new planning approach to protected area management. This structure was further strengthened by improving the physical infrastructure for the conservation services in the



area. The major improvements include construction of a visitor centre to introduce and promote the ecological and cultural values of the area, the entrance/exit gate to control the access to the area, a bird-watching tower to attract nature tourists and restoration and renovation of traditional houses for tourist accommodation purposes. These improvements were completed and put in service in 2008.

Results and recommendations

Today community based participation, strategic vision, arrangements regarding negotiation, representation, transparency for sustainability in biodiversity and natural resource management are widely discussed. In parallel to these issues, management of protected areas towards being more people-focused, less centralized in management and looking for better balances between conservation and social, economic and cultural objectives are widely discussed (Scherl and Edwards 2007:71). Ecosystem conservation and sustainable use of resources share a number of common principles based on recognition of (a) close interdependence between humans and their natural world; (b) the diversity of human interests and values that have to be considered in the planning and conservation of natural areas; and (c) the need to make public policy choices and trade-offs in order to ensure the sustainability of natural and protected area. In these complex sustainability and planning domains, nature is often valued differently by the multiple stakeholders and deep-seated conflicts among various groups may be traceable to such differences. A crucial need thus arises for mechanisms to identify these various, often conflicting perspectives, and develop effective strategies for managing ecologically impacted destinations and diminishing wild spaces. Protected area managers and policy makers have consequently been turning towards more

participatory and inclusive forms of management to replace traditional top-down forms of governance (Jamal 2004).

As a "modern" model of protected areas emerged in the 1970s, major themes such as management effectiveness, protected area network design, governance and sustainable finance have started to be used more widely reflecting a changing view. In this new model, planners acknowledged the importance of local communities, recognized governance models beyond government-run national parks, and addressed the need for more systematically and comprehensively designed protected area networks. Protected areas began to be viewed more as social enterprises and managed with the needs of local communities in mind, often in partnership with social scientists and local communities. Funding diversified in a way to flow through different partners, including non-governmental organizations, and new forms of protected areas such as community-conserved areas were created and/or recognized (Ervin et al. 2010). The BNRM project addressed these concerns. The first steps for development of participatory management plans and effective governance in protected areas in Turkey were taken during this project.

A significant aspect of the BNRM project was to support all mechanisms that help national and local stakeholders participate in decision-making, including government agencies, non-governmental organizations, community representatives, and private sector. This approach helped to build some of the new skills in intersect oral and participatory planning and management (Arancli 2002).

According to the "Implementation Completion Report" by the World Bank, the project was found successful in introducing international good practice in participatory management planning for protected areas and



led to an attitudinal change in conservation management practices in Turkey. The participatory approach was enhanced through implementation of small grant programs at project sites and is reflected in greatly improved relationship between the protected area management and the local communities (World Bank 2008).

A big progress has been achieved via all the work carried out by the project. The local people and the project team have learned jointly how to talk and listen to each other, how to express different opinions, how to talk in a crowd and how to negotiate. Effectiveness of the biodiversity and natural resource conservation requires long-term commitment and vision instead of focusing on short-term results. In reality participatory approach takes time, but the result is much more effective than the conventional approaches used in Turkey (Arancli 2002).

On the other hand, biosphere reserve is not a recognized protection status in the Turkish law. At the moment the area is a biosphere reserve on paper without the legislation. Camili Basin, therefore, requires a protected area status, either through recognition of biosphere reserves as a protected area or through designation as an IUCN Category V site (protected landscape).

The BNRM project established and developed a project management unit for Camili, but mechanisms established under the project to enable local participation and decision making must be strengthened and maintained. Illegal hunting of the brown bear by the local people still continues and there is no implementation of management decisions regarding the conservation of brown bear. Another important threat in Camili basin is the governmental decision in 2009 to build eight hydroelectric power plants. The good news is that local people of the Black Sea Region generally acts together

to prevent this kind of enterprises. Local people of Camili basin has learnt to act together in case of threats and achieved to legally stop construction of two hydroelectric power plants. The existing committees may further help them to share information and act together in case of urgent concerns. The representatives of the three committees, namely, ecotourism, beekeeping and agriculture and livestock committees must ensure the transparent and objective flow of information to the villages. In addition, participation of women in the three committees and in the Local Biosphere Reserve Commission should be encouraged in every way. Further, the participation of young people in these three committees should be encouraged.

Achieving the right balance between development and conservation requires assisting essential development while maintaining and protecting the qualities of the area, which provide local residents with the best chance of developing sustainable livelihoods that are within their control. Central to this process is local culture, which has shaped and is a part of the landscape of Camili. Sustainable development in Camili must therefore respect and sustain local traditions and practices. Mechanisms established under the BNRM project to enable local participation and decision making must be strengthened and maintained.

The United Nations (UN) declared 2010 as the International Year of Biodiversity. Moreover, 2011 was declared as the International Year of Forest by UN. Camili Biosphere Reserve is home to a part of the old-growth forests in Turkey. The area is currently the only biosphere reserve in Turkey. When we think about the biodiversity and the other values of Camili, the importance of a well-functioning management system becomes apparent. The past efforts will be a pioneer for the Turkish nature conservation system and for the possible future



biosphere reserves. The BNRM project laid a solid foundation for new protected area management practices consistent with international good practice and EU guidelines. It is important that future projects regarding protected area and natural resource management should be built on these experiences and good practices.

References

- Adem C. and Gursan E. (2005) Turkiyenin İlk Biyosfer Rezervi: Artin-Camili. Retrieved from <http://www.cevreciyiz.com/akademi> on November 14, 2011.
- Adem C., Arancli S and Zeydanli U. (2007) GEM-CON-BIO Case Study Report Camili Biosphere Reserve Turkey. Project title: Governance and Ecosystems Management for the CONservation of BIOdiversity, Project acronym: GEM-CON-BIO Project, Project no: 028827, 64 pp.
- Alacam O, Cekic O, Ertas HT and Eraydin S. (2007) Camili Biyosfer Rezerv Alanı Sürdürülebilir Turizm Stratejisi. Türkiye'deki Korunan Alanlar ve Çevresinde Sürdürülebilir Turizm Gelişim Stratejisi Rehberi. Editors: N. Beunders et al., Dumat Ofset Matbaacılık San. 120 pp., Ankara.
- Arancli S. (2002) Biodiversity and Natural Resource management in Turkey. Environmental Connectivity: Protected Areas the Mediterranean Context, 26-28 September 2002- Malaga, Spain.
- DOKAP Final Report (2000) The Study on the Regional Development Plan for the Eastern Black Sea Region in the Republic of Turkey. Volume V Environment, Nippon Koei Co., Ltd. Recs International Inc., 95 pp.
- Ervin J, Sekhran N, Dinu A, Gidda S, Vergeichik M. and Mee J. (2010) Protected Areas for the 21st Century: Lessons from UNDP/GEF's Portfolio. New York: United Nations Development Programme and Montreal: Convention on Biological Diversity.
- Gokturk T, Artvinli T and Bucak F. (2008) Artvin Kuş Faunası. Avifauna of Artvin. Artvin Çoruh University, Faculty of Forestry Journal, 9 (1-2): 33-43.
- Guclu K and Karahan F. (2004) A review: the History of Conservation Programs and Development of National Parks Concept in Turkey. Biodiversity and Conservation 13: 1373-1390.
- Guner A, Ozhatay N, Ekim T, Başer KHC. (2000) Flora of Turkey and the East Aegean Islands, Supplement II., Vol. XI., Edinburgh: Edinburgh University Press.
- Jamal T. (2004) Conflict in Natural Area Destinations: A Critique of Representation and 'Interest' in Participatory Processes. Tourism Geographies, Vol. 6, No. 3, 352-379, August 2004.
- Kalem, S. (2008) Etkin Korunan Alan Sistemlerine Doğru. Biyolojik Çeşitlilik Sözleşmesi Korunan Alanlar İş Programı Uygulama Kılavuzu-Türkçeye Çeviri, Biyolojik Çeşitlilik Sözleşmesi Sekreteryası, Teknik Seriler No. 18, İstanbul. Türkçeye Çeviri: S.Kalem, Montreal, 88 s.
- Kaya Z. and Raynal DJ. (2000) Biodiversity and conservation of Turkish forests. Biological Conservation 97 (2001): 131-141.
- Ministry of Environment and Forestry-Turkey (2006) Biodiversity and Natural Resources Management Project Booklet.



- General Directorate of Nature Conservation and National Parks, 12 pp., Ankara.
- Ministry of Environment and Forestry-Camili PAMA (2007) Camili Biosphere Reserve Management Plan (2007-2011). Final Draft. 113 pp., Ankara.
- Ozhatay N, Byfield A, Atay S. (2005) Turkiye'nin 122 Onemli Bitki Alani, WWF Turkiye (Dogal Hayati Koruma Vakfi), Istanbul.
- Plantlife (2010) Important Plant Areas. Retrieved from <http://www.plantlife.org.uk/international/plantlife-ipas.html> on September 7, 2011.
- Secretariat of the Convention on Biological Diversity (2000) Sustaining Life on Earth: How the Convention on Biological Diversity promotes nature and human well-being. 20pp.
- Stoll-Kleemann A, Vega-Leinert AC, and Schutz L. (2010) The role of community participation in the effectiveness of UNESCO Biosphere Reserve management: evidence and reflections from two parallel global surveys. *Environmental Conservation* 37 (3): 227–238.
- TUIK (Türkiye İstatistik Kurumu) (2009) Adrese Dayalı Nüfus Kayıt Sistemi Veri Tabanı. Sehir, Belde ve Köy Nüfusları-2009, Camili. Retrieved from <http://report.tuik.gov.tr> on November 20, 2011.
- UNDP (2009) Turkey Monthly Newsletter. Special Edition, December 2009, Retrieved from <http://www.undp.org.tr> on September 21, 2011.
- Wilson E.O. and Peter F.M. (1988) Biodiversity. Washington, DC: National Academy Press, 521 pp.
- World Bank (2008) Implementation Completion Report Mission (March 3 – 20, 2008), Aide Memoire, Turkey: Biodiversity and Natural Resources Management Project (GEF TFO23556), 16 pp

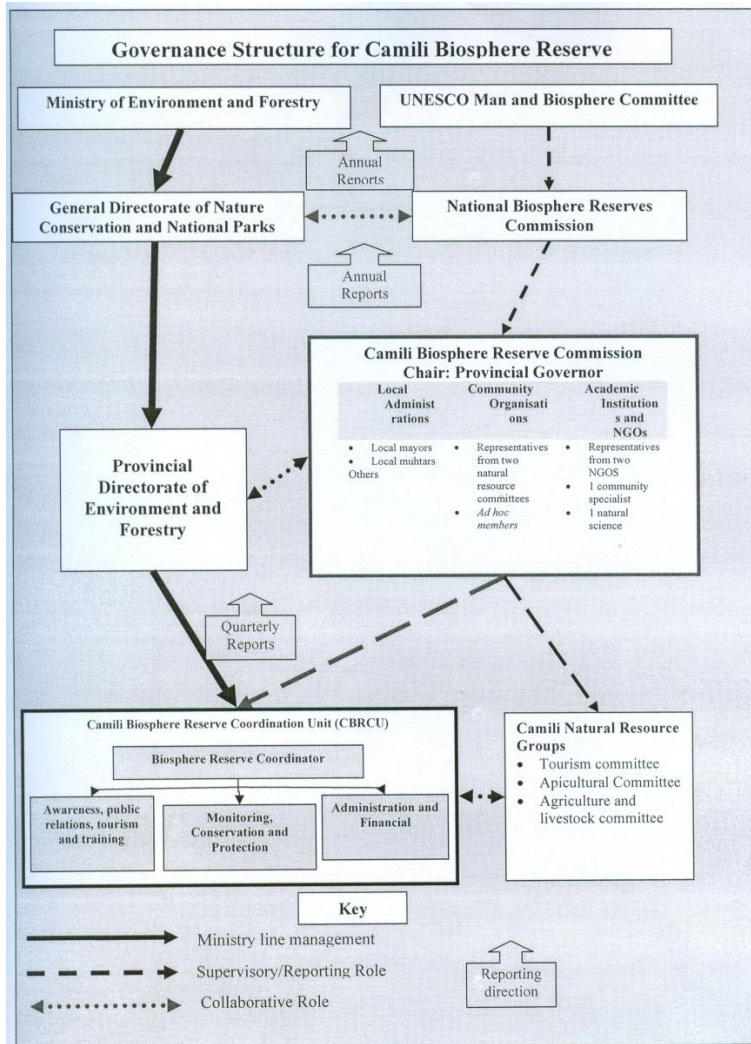


Figure 1. Governance Structure for Camili Biosphere Reserve (Ministry of Environment and Forestry 2007)