

**A TURKISH SUCCESS STORY IN SUSTAINABLE DEVELOPMENT:  
“CAMILİ BIOSPHERE RESERVE”**

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**ABSTRACT**

Located within the municipal borders of Borçka District in the Province of Artvin and declared as a first biosphere reserve of Turkey, the Camili Basin is an ecological and cultural treasure hidden in Karçal Mountains. The basin, which begins green valleys and reach to high alpine meadows has not been much intervened by human activities. Having a large natural ecosystems and with old growth forests and its humid climate the Basin has temperate rain forests characteristics.

The importance of the basin in terms of nature began with project called “Old Growth Forests of the Black Sea Region” implemented by Society for the Protection of Nature between 1993-1996. Then, old growth forests in Efeler and Gorgit areas were declared as Nature Conservation Area by Ministry of Forestry in 1998.

Camili Basin was selected one of the four pilot sites of the project called “Biodiversity and Natural Resources Management Project” which was implemented by Ministry of Environment and Forestry collaboration with the World Bank and supported by Global Environment and Facility (GEF) between 2000-2008. By the project, many components including activities like policy and programs, training and awareness and implementation and monitoring were realized. Within this context, participatory management plan was prepared, training and awareness programs were carried out for local people and school children, local people were supported as technically and financially about alternative income generation activities, visitor center and bird watching towers were constructed, local ecotourism and beekeeping committee were established and with collaboration between the project and the Turkish National Commission for UNESCO, the basin joined to the World Biosphere Reserve Network in 2005.

In order to prof and certificate organic honey produced in the basin, within the project entitled “Certification of Local Products in Camili Biosphere Reserve ” and supported by Turkish National Commission for UNESCO and collaboration between Ministry of Environment and Forestry and Ministry of Agriculture and Rural Affairs, local producers have obtained the organic product certificate in 2010. Beside these, for labelling the local products the name and logo of Camili Biosphere Reserve was registered by Turkish Patent Institute for Ministry of

Environment and Forestry and the Ministry handed over the right of use of the patent to the Union of Camili Villages in 2011.

A documentary film for Camili Biosphere Reserve was prepared by a national documentary TV channel (İZ TV) with the support of Turkish National Commission for UNESCO. With this documentary film, natural resources, biodiversity, cultural and historical values and traditional life style of Camili Basin and people are presented to national public.

In addition to these , land uses from past to present, traditional life, cultural and socio-economic development of Camili Biosphere Reserve and people were presented in a book by a project entitled “Biosphere Reserves in Education for Sustainable Development: Life in Camili” with support of Turkish National Commission for UNESCO. This book has been distributed to all related stakeholders.

After declaration as a biosphere reserve, number of visitors has been increased and thus beekeeping, honey production, production of natural products, bed and breakfast and guidance services activities were much appreciated in Camili Biosphere Reserve. Therefore, incomes of local people has been increased and through nature friendly economic activities, a model on sustainable development has been established.

**Keywords:**Biosphere Reserves, Biodiversity, Sustainable Development

## Camili Biosphere Reserve

### Introduction

Camili Basin is located within the municipal borders of Borçka District in the Province of Artvin and it contains six villages. Total population is approximately 1200 people. In summer season, this figure is increased by the people who are originally from the basin but they live in Borçka district and in other cities of the country.



Due to its biodiversity , natural resources, cultural and historical values, the Camili basin was included to the World Biosphere Reserves Network by UNESCO in 2005.

### Projects Developed in the Region

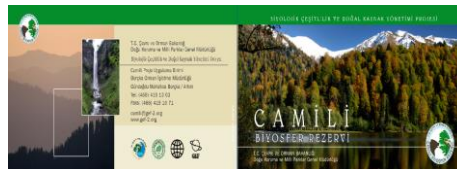
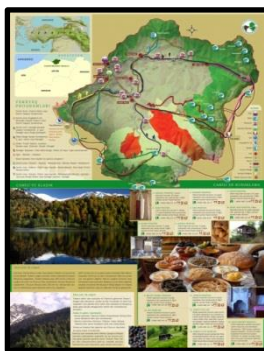
The importance of the area in terms of nature conservation began during 1990s. The Camili Region is located in the Karçal Mountains where it was the pilot site of the project entitled “ Old Growth Forests of the Black Sea Region” implemented by the Society for the Protection of Nature between 1993-1996.

With their old growth forests and landscape characteristics, Efeler and Gorgit areas were declared as Nature Conservation Area pursuant to the Law on National Park, Number 2873, by Ministry of Forestry in 1998.



Due to its natural resources and rich biodiversity, the Camili basin was selected one of the four pilot sites of the project called “Biodiversity and Natural Resources Management Project” which was implemented by the Ministry of Environment and Forestry in collaboration with the World Bank and was supported by the Global Environment and Facility (GEF) between 2000-2008. By the project,

- The management plan for the basin was prepared with the participation of all stakeholders
- Forest management plan integrated with the decisions on biodiversity conservation and development was prepared
- To introduce the basin to visitors and to support education and awareness of the school children about nature conservation, an entrance building and a visitor center were constructed.



- In order to watch the migration of wild birds, a bird watching tower was constructed.
- To control production, marketing and selling of the Caucasian bee race which the most important value of the basin’s biodiversity and of the organic honey, a Beekeeping Committee that is consisted of the local people lived in the basin was established.
- In order to organize accommodation and guidance services for the visitors, an Ecotourism Committee which is consisted of local people lived in the basin was established.
- Local people had been supported through the small grant programs so that the grant projects were prepared by the local people to establish alternative income generation activities. By this way, totally 47 projects, including of 13 ecotourism (pension running etc.), 2 education and awareness, 23 Caucasian bee and organic honey production ,5 traditional hand made products, 2 nature friendly animal husbandry practices, activities, and 2 agriculture applications supporting biodiversity were financially and technically supported.
- The information materials about the biodiversity of the Camili Biosphere Reserve and the brochures for the ecotourism activities were prepared.

The production of genetically pure Caucasian bee race and organic honey takes an important place in the local economy. 30 % of the total population of the Camili basin occupy with the beekeeping activities. Therefore beekeeping is one of the major economic activities in the

basin. With the lead of the Turkish National Commission for UNESCO and the supports of Ministries, of Forestry and Water Affairs and of Agriculture and Rural Affairs, in order to document and certificate that the honey produced in Camili basin is harmonized with ecological rules and an organic products, a project entitled “Camili Biosphere Reserve Local Products Certification Project” was implemented in 2010. Within the project;

-Local beneficiaries were trained about the organic agriculture and certification system.



-The beneficiaries who requests to be in the systems were included to the certification system and 32 producers deserved to obtain the rights of “Organic Product Certificate”.

-To use the logo and name of “Camili Biosphere Reserve of Ministry of Forestry and Water Affairs” on the local products, the guaranty mark was obtained from the Turkish Patent Institute. The use of rights of the logo and name was given to the Camili Basin Village Association by the Ministry without any charge in 2011.

-The organic products certification project has provided an important contribution for economy of the local people and this approach generate a model for other sites.

-Implementation of the certification project has strengthened the socio-economic relations between the biosphere reserve and local people. The people who participated to the system is aware that due to the Camili is a biosphere reserve, the project was began in the basin.

The Camili Biosphere Reserve, with aq side event, was introduced as one of best and successful practices in sustainable development examples to the participants during The United Nations Conference on Sustainable Development (Rio+20) which was held in Rio de Janeiro (Brasil) in 2012.



A documentary film for Camili Biosphere Reserve was prepared by a national documentary TV channel (İZ TV) with the support of the Turkish National Commission for UNESCO in 2013. With this documentary film, natural resources, biodiversity, especially traditional uses and cultural lifestyle of the Camili basin and the local people are presented to national public.

In order to increase awareness and education of the school children on protected areas and biosphere reserves, a poster named as “Protected areas and Biosphere Reserves” was prepared and distributed to the schools throughout the country in collaboration with the Ministry of Education.

In 2014, a book entitled “Biosphere Reserves in Education for Sustainable Development: Life in Camili “Bread, Yogurt and Honey” was prepared through a project supported by the Turkish National Commission for UNESCO and was distributed to all related stakeholders in the country. In this book, how the sustainable development has been succeeded and what is the role of the biosphere reserve concept in this process are being voiced by the local people lived in the basin..

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## Natural and Cultural Values

### Biological Diversity

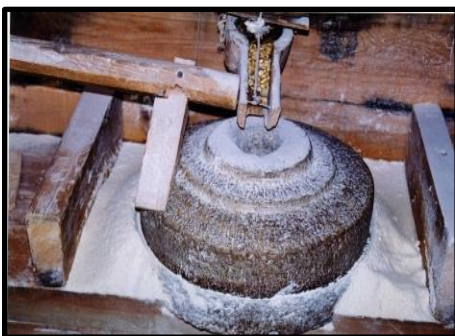
Camili Biosphere Reserve contains a wide variety of species and natural ecosystems linked across a considerable range of altitudes (350m-3500m). The particular values for conservation objectives are old growth forests and temperate rain mixed forests like Caucasian spruce (*Picea orientalis*), Oriental beech (*Fagus orientalis*), Chestnut (*Castanea sativa*), and Caucasian lime (*Tilia rubra* ssp. *caucasica*), alpine and subalpine ecosystems and aquatic communities. There are 990 flora species which 23 of them are endemics.

Camili Biosphere Reserve hosts a near intact diversity of fauna typical of the area. The particular values as conservation priorities are genetically pure Caucasian Honey Bee Race, Brown Bear (*Ursus arctos*), Chamois (*Rupicapra rupicapra*), Caucasian Black Grouse (*Tetrao mlokosiewiczi*), Caucasian Viper (*Vipera kaznakovi*), Caucasian Salamander (*Mertensiella caucasica*), Big Spotted Trout (*Salmo trutta macrostigma*) and migratory raptors.



### Historical and Cultural Values

The Camili area has been governed at various times by the Byzantine Empire, the Seljuk Empire, Mongols, the Ottoman Empire, Russians and Georgians . Notable archaeological and historical features in the Camili basin include the Kemer bridge at the entrance of Efeler village, the Iremit mosque in Maral village, the church in Uğur village, Tamara's bridge and two old prisons. 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. Traditional dances and old folk music culture still survive in the area; the villagers have recently formed a Polyphonic Elders' Chorus with a view to preserve traditional songs for future generations.



### Nature Conservation & Sustainable Development Relationship

The main function of Biosphere Reserves is to develop systems and models to protect natural values and to provide socio-economic alternatives and opportunities for local people living in and around in biosphere reserves as well.

As Camili is a closed basin, the local people communes with the forest. Life in the basin is built on combating with nature resulted from tough winter conditions. Local people is dependent on the nature for keeping their lives. Human-nature relations are built on traditional knowledge and experiences. Relations with nature are provided by activities like agricultural production, nutrition, using the plants and herbs for the purpose of treatment, firewood and construction wood, livestock, grazing, beekeeping, trout, wild goat and hunting of other wild animals. The interaction of the people and the nature in Camili has developed a unique cultural landscape and local traditions fitted with the wishes of the community. This is not surely mean that local people deny the benefits of development and the reasonable standard of living, but development should occurs in a way that does not spoil the special characteristics of Camili. Camili gives a chance to local population to develop a model for sustainable livelihoods which is under their control in order to establish the right balance between conservation and development. Thus, maintaining the quality and protection of the Camili region are essential factors. Local culture is in the center of this process and it creates a part of the landscape of Camili. Therefore sustainable development activities in Camili must respect to the local traditions and practices.

The traditional self-sufficient economic structure that longstanding in the Camili basin is closely linked to the forest and the life and depends on the cycles of nature. This nature-based self sufficiency is not considered as a threat for the sustainability of the natural resources. Access to the market economy outside is limited due to the remoteness of the area, harsh weather conditions and lack of transport and high transportation costs. In this conditions, local people who live in Camili where one of the best practices in sustainable development is used, keeps their lives with the resources that are special about Camili basin.

Because of the tough environment and nature conditions the life sources and livelihoods in the basin had depended on mainly agricultural and animal husbandry practices until recent years. With the much recognition of new activities in the region like ecotourism, bee keeping, organic honey and hazelnut production and other related practices, the diversity of income generations increased gradually. The Camili basin is also known to be the unique place where the habitats of the genetically pure Caucasian honey bee race which it is one of the most productive and powerful bee races in the world, are hosted. The abovementioned economic activities has created the new job opportunities in the basin, so some activities such as tourism guidance, pension operating, bee keeping, honey production that support sustainable development have developed.

As the road which is only access to the Camili basin is closed between 4-6 months in a year because of the tough climate conditions, there occurs the alterations between the population of summer and winter seasons. Thanks to application of nature friendly projects and activities which support the sustainable development in Camili, especially in summers population of the region increase gradually.

Camili basin, due to its nature and landscape diversity as well as traditional culture, is an important attraction center at national and global level. When it is getting much popular the concerns about the unplanned housing may be felt in the region. But local people makes a great efforts fall through of the activities which may cause these concerns. Local community is aware of the importance of rare ecosystems and natural and cultural landscapes of their habitats. Thus, for the ensuring of tourism facilities in the region are nature friendly and



coherent with local architecture and culture they try to establish a mutual understanding between each other. This common understanding also creates an internal control and monitoring mechanism for protection and sustainable production of the Caucasian bee and the honey produced in the region. Taking Caucasian bee and honey out from the basin illegally or to bring the alien bees into the region may be stopped through the active and strict controls made by local people. Being aware of naturality and sustainability of hazelnut and other local products produced in the basin and making efforts for sustainable production of these products show that the local people is aware of economic and environmental benefits of these activities in their life.

The variety of nature friendly businesses practices such as production of queen bee, organic honey and hazelnut, pension running and trekking guidance services which support sustainable development, increase day by day in the basin. Increasing of these activities cause returning of the local people lived outside to the basin especially in summer seasons. Increasing of these businesses creates a substantial economic incomes for local population in every year.

Camili Biosphere Reserve, due to with its biodiversity and natural beauties as well as traditional life style hospitality and accommodation facilities, is visited by many tourists from inside and outside of the country. Visited by thousands of domestic and international people, the Camili is a unique place of the country where it is shown that how a right balance can be established between implementing of economic practices (such as pension running, guidance services, queen bee raising, honey production) and protection of biodiversity and cultural values.

With enabling of protection of unique and rare ecosystems, species and habitats and of support nature friendly economic activities and surveys and monitoring programs carried out by scientists, NGOs and other related persons or institutions, the Camili basin achieves protection, development and research-monitoring which they are three significant functions of the biosphere reserves. The ecosystem management approach is applied in the zones where development function is used and sustainable use of natural resources is promoted and as a result of this a model to contribute sustainable regional development efforts are built.

## **Nature Friendly Business Practices**

### **Ecotourism and In House Hospitality (Bed& Breakfast)**

In 2000, while the number of tourists who visit the region was nearly zero, this figure has increased to one thousand after declaration of the area as biosphere reserve by UNESCO in 2005. After the support of small grant programs within the context of the project entitled “Biodiversity and Natural Resources Management Project” executed by the Ministry of Environment and Forestry” in collaboration with the World Bank and with the support of Global Environment Facility (GEF), the number of family pensions increased to twelve and the number of visitors in the basin increased to 2200 by 2006 and 6500 visitors in 2011 and approximately 30.000 visitors in 2013. Currently, the number of pensions is about twenty five, daily overnight accommodation capacity in the the basin is average 450 persons. The family

pensions consists of traditional wooden houses with local architecture. Houses are turned into family pensions with little modifications in order to protect local architecture. Pensions provide clean and natural accommodation facilities with warm and welcoming family environment for the guests. Local people is aware of the nature and its protection. Pensions provide locally produced food with a large menu for their guests. Most of local foods are produced by themselves or bought from their neighbors creating an economic circle that provides mutual benefits for all involved. Traditional wooden houses are prepared for accommodation of visitors. According a survey carried out in the Camili basin shows that 99% of the visitors prefer to stay in traditional wooden houses. They explain reasons for that as; warm and always welcoming family environment, experiencing traditional life style and culture, cleanness and hygiene and locally produced food as well. Total population of camili basin is around 1200 people and there are six villages and approximately 270 households. The services like pension operating and other activities connected to them provide average annual 500.000 US Dollars for the basin.



## **Beekeeping**

Beekeeping has been a part of economy for hundreds of year in Camili region. However, prior to the research and development projects implemented by TEMA ( The Turkish Foundation for Combating with Erosion and Reforestation), beekeeping was carried out by traditional methods and only for honey production. By the projects, specialists determined that the bees in the basin are belongs to the highly productive Caucasian bee race which it is one of three most important bee races in the world. Besides, the researches showed that the genetic structure of the bees has been not changed since no migrant beekeepers enter the basin. As the Caucasian bee species lives only in the Camili basin of the country and it is genetically pure , they are also very important for the regional biodiversity. Due to this characteristics of the basin, a special attention was given to this issue in Biodiversity and Natural Resources Management Project and a “Beekeeping Committee” was established under the Environmental Protection and Development Association with representatives from each village and unifying the producers in the region. In 2010, the honey in the basin was certificated as “Organic Product”. In recent years, beekeeping has become a major source for revenue and employment in the basin and it is moving towards a well known and the best quality trade mark in the sector. Moreover, the name and logo of Camili Biosphere Reserve was registered by the Turkish Patent Institute for the Ministry of Environment and Forestry and the Ministry handed over the right of use of the patent to the local producers. Currently, approximate 200 households occupy with beekeeping and 30 tons of honey is produced per

year. Annual average income for the region is about 1.500.000 US Dollars. Furthermore, 5000 Caucasus queen bees are produced and supplied to the markets and annually 175.000 US Dollars is generated for income in the basin.



**Agriculture and Animal Husbandry**

Nearly each of the families has a farm for supply their needs and particularly they produce beans, cabbage and vegetables. Hazelnut takes an important place among the Camili’s agricultural products. Hazelnut of the Camili basin is specially sought and demanded by the markets for its quality and taste. No chemical pesticides are used for nursing of hazelnuts in the region. Therefore, the hazelnut of Camili is considered as organic product. A total of approximately 400 tons of hazelnut is produced per year in the basin and average 1.250.000 US Dollars which are very important incomes for the people of basin is generated per year. Animal husbandry and livestock in the region is not high. Most of the families keep animals (cows, sheep and goats) for their own needs and to supply products for the pensions.



As the results of the abovementioned activities, average 3.500.000 US Dollars revenues are generated annually in the basin. When considering approximate 270 households settle in the basin, the annual income per household is about 13.000 US Dollars.

## Conclusion

Establishment of the right balance between conservation and development requests on the one hand, enhancing of the sustainable livelihood facilities for local people on the other hand, supporting of them for getting the standards of desired development. The main themes of the United Nations Conference on Sustainable Development (Rio+20) which was held in 2012 were “ Green Economy ” and “Sustainable Development” and the final report of the conference states that livelihoods of the people lived especially in rural areas must be enhanced and biodiversity should be protected. This statement has much increased the significance of biosphere reserve concept nowadays. As it is known the biosphere reserves are the areas where the priority attention are given to human factor as well as to nature conservation issue together. As defined in the Seville Strategy that it is legal basis of biosphere reserves and prepared in Seville City of Spain in 1995, the biosphere reserves are the fields where sustainable economic and human development are promoted, on the other hand species, genetic resources and ecosystems are protected. According to the Seville Strategy, resources in these fields may be managed by local communities, institutions, NGOs, economic groups and other related stakeholders in a sustainable way.

The biosphere reserves are nature conservation areas where a great emphasis is given to the development of local people providing a sustainable way so that it creates opportunities for green economy practices which do not damage to natural resources and biodiversity. Therefore in order to realize the goals like protecting of biodiversity and provide economic development for people in a balanced way, to increase the numbers of biosphere reserves in the country and in the world will make a positive contribution in terms of achieving the target.

Camili Biosphere Reserve with its landscape values, biodiversity, natural resources and local traditional culture, is one of the unique places in the country and in the world. The traditional life style and uses from past to present and kept alive in present, are being maintained through the integrating of modern systems. It is resulted from capability and skills of the community of the Camili basin through the keeping up with the today's conditions by respecting to their past. Together with its difficult field conditions the people in the basin is aware of the significance of nature and its impacts to their life...

**Photos:**

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