Planning Process and Projects in National Parks of Turkey

Meral ÇİÇEK1* Nurettin TAŞ1

¹Directorate General of Nature Conservation and National Parks, Ministry of Forestry and Water Affairs, Ankara.

*Sorumlu Yazar Geliş Tarihi: 29 Haziran 2018 E-posta: mcicek@ormansu.gov.tr Kabul Tarihi: 15 Aralık 2018

Abstract

Ministry of Forestry and Water Affairs, Directorate General of Nature Conservation and National Parks is responsible for conserving the richness of biodiversity in Turkey and determining policies on nature conservation, conserving and developing wildlife areas, designation of protected areas; managing efforts in National Parks (NP), Nature Parks, Natural Monuments and Nature Conservation Parks, conserving and enhancing sensitive areas particularly wetlands and caves and meeting the international conventions and obligations with regard to these issues. National Parks in Turkey have been managing within the scope of 2873 numbered Law on National Parks and Regulations. Within the context of this Law National Parks being designated among the protected areas having natural and cultural resource values around the country and world. Turkey has 42 National Parks, 223 Nature Parks, 111 Natural Monuments and 30 Nature Conservation Areas. Long Term Development Plans/ Development/Management Plans being prepared in accordance with the biodiversity strategy considering conservation-utilization balance and in line with the decisions in these upper scale plans, by taking into consideration physical and legal restrictions, Landscape and Architectural Projects for introduction, recreational and informational aims. Moreover, the areas associated with cultural, historical and archeological events being designated as Historical National Parks (HNP) (Sarıkamış Allahuekber Mountains NP, Başkomutan HNP, Nene Hatun HNP, Sakarya Battles HNP, Mount Kop Defense HNP, Göreme HNP etc.). Visitor Centers being constructed to explain late history for visitors and transfer information to future generations (Panoramic Museums). With this study, planning process and projects prepared in National Parks in Turkey are explained.

Keywords: Development Plan, Protected Area, National Park, Plan, Project

1. INTRODUCTION

Directorate General of Nature Conservation and National Parks works for protecting prosperous biodiversity and determining policies on nature conservation, wildlife protection and improvement, designation and management of protected areas; National Parks, Nature Parks, Natural Monuments and Nature Conservation Areas, conservation and development of wetlands and caves and fulfilling and keeping up with the international conventions and obligations on these issues.

As specified at the Council of Forestry and Water, protected areas are the utmost important for keeping the nature resilient and stay healthy against ongoing landscape alterations resulting from variable pressures. If making a definition of protected areas considering the implementations carried out in Turkey it should be expressed as; terrestrial, aquatic or marine ecosystems managed under the related legislation to protect and make sustainable its natural and cultural resources; and the areas acquired statutes like national parks, nature parks, natural monuments, nature conservation areas, wildlife development areas, natural protected areas, wetlands, special protected areas etc (Anonymous 2017).

National park concept in Turkey for the first time was introduced with 25th article of Forest Law numbered 6831 in 1956. After that, four different protection statutes were defined together with National Parks Law numbered 2873 in 1983 as; national park, nature park, nature conservation area and natural monument.

According to 2nd article of National Parks Law; National Park; areas reserved for scientific and aesthetical reasons and holding natural and cultural values rare in nation-wide and all around the world and also reserved for conservation, relaxation and tourism areas,

Nature Conservation Area; natural areas designated to be used only for scientific and educational purposes containing rare, threatened or endangered ecosystems and/or species and outstanding values as a result of natural events and which should definitely be protected.

Nature Park; areas containing characteristic vegetation and wildlife features, and enabling public for recreation activities, offer scenic presentation,

Natural Monument; natural areas or nature parts as a result of natural events holding scientific values protected within the scope of national parks (Anonymous 1983).

Within the period from the first national park designation in 1958 till today 42 National Parks (Figure 1.1), 223 Nature Parks, 30 Nature Conservation Areas and 111 Natural Monuments were designated. Moreover, the areas containing cultural, historical and archeological memories have been designated as Historical National Park (HNP) (Sarıkamış Allahuekber Mountains NP, Başkomutan HNP, Nene Hatun HNP, Sakarya Battles HNP, Kop Mountains Defence HNP, Göreme HNP vb.). Visitor Centers (Panoramic Museums) have been built to express the recent historical events and transfer the information to the next generations.



Figure 1.1 Yedigöller National Park

2.PLANNING PROCESS

To protect, manage and use sustainably natural and cultural resources considering the balance of conservation and use within the scope of a plan, to keep exist the ecosystems, habitats and species, to provide continuity of key features of natural values and biological diversity elements and landscape constituted by them, to take necessary measures for reducing biodiversity loss from anthropogenic uncontrolled use and requests; plans have been preparing for the areas within scope of National Parks Law numbered 2873. Long Term Development Plans/Development Plans for National Parks and Nature Parks, Management Plans for Natural Monuments and Nature Conservation Areas have been preparing.

Long Term Development Plans/ Development Plans are plans such that; technical, administrative, social and financial options taken into account/determined to protect, develop, sustain the resource values for long term period, integrative ecosystem approach in which these options considered in time and land/local scale interrelatedly (Anonymous 2012).

In National Parks Law numbered 2873 the following is involved;

Article 4: Planning

"By taking into consideration the characteristics and the qualities of the areas designated to be national parks as per the provisions of the present law, the development plan required for the realization of the protection and utilization purposes and covering the establishment, development and managing phases will be prepared and put into effect by the Ministry of Forestry and Water Affairs by obtaining the approvals of the concerned Ministries and if necessary, with their contributions as well".

Also, in 11th article in National Parks By-Law based on the National Parks Law numbered 2873 planning process is an obligation (Anonymous 1986).

For whatever to be implemented as use, construction and facility in the protected area Long Term Development Plan must be prepared previously.

An example of Long Term Development Plan Planning Sheet is as follows:

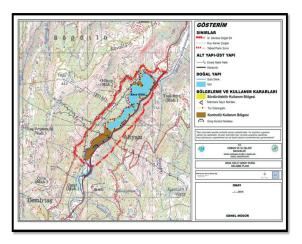


Figure 2.1 Example of Long Term Development Plan
Planning Sheet

2.1.Pre-Planning phase

- Before the planning phase; Information and documents on that national park obtained from related institutions and organizations.
- The administrative and legal process launched to prepare the plan considering vegetation period (allocate fund if by contract, preparing specifications, tender process, signing the contract etc),
- Planning/supervision team is organized considering national park characteristics.

2.2.Plan Preparing/ to be prepared Process

- In the process of planning of Long Term Development Plan, analytical survey, synthesis and planning report and related maps are prepared. These reports can be prepared one by one as well as a whole report.
- In the phase of analytical survey, synthesis and planning, surveying report and site visit documents to be necessary for the site visit are organized as 2 copies and recorded in its folder.
- In the phase of analytical survey, synthesis and planning, 2 interested-party meetings are organized. At the first meeting, planning process is expressed to the interested parties, heard about the recent problems met and expectations on the park by the parties. At the second meeting; shared studies and evaluations on the park. Opinions and evaluations from these meetings are utilized in the planning process.

2.3. Process of taking opinions

- Draft plan report prepared is submitted to related institutions and organizations for their opinions and taken their positive opinions or if necessary active contributions.
- In line with these opinions draft plan is finalized and taken a statement down by planning/supervision team.

2.4.Approval Process

- Draft plan is submitted to the Ministerial Consent for holding Approval authority and approved by Directorate General of Nature Conservation and National Parks.
- Approved Long Term Development Plan is delivered to the related institutions and organizations and related branches within the Department of National Parks (Anonymous 2012).

3.PLANNING PRINCIPLES

In the preparation process of Long Term Development Plan/Development Plan, it is considered as harmonization with the aims, criteria, general policy and principles associated with the status designated and resource values and characteristics of planned area and plans are prepared in line with the following principles.

- Protected area is managed in accordance with the prepared Long Term Development Plan/Development Plan.
- Opinions, requests and contributions from interested parties taken through the planning and implementations period.
- In the planning process the followings are considered: qualities and quantities of main resource values as naturality, being endangered, representability, rareness, vulnerability and range.
- Main purpose of the plan is defined considering main resource values.
- In the planning process, possible problems-threats to the resource values of the area are detected/defined.
- In determining zones of the area the followings are considered; ecosystem integrity, species and habitats under threat and endanger, threats, regions appropriate for visitor use, recent land use.
 - In the zoning process it is considered that;
 - Main resource values,
- Vulnerability, rareness and endemism of resource values,
 - Ecosystem integrity, landscape variety,
 - Appropriate habitat range for species,
 - Traditional uses and socio-cultural values,
 - Ownership status,
- Legal, environmental and other constraints and other factors specific to each area.
- The areas having the characteristics as follows are reserved as Core Zone; well-preserved wilderness till today without any human interference in terms of species and/or habitats under protected globally and/or for which made a commitment by international conventions; so as to conserve the above species and/or habitats, to restrict or prevent the human interference. In the core zone, any activities are not permitted excluding scientific studies.
- The areas having the characteristics as follows are reserved as vulnerable zone; protected wilderness connected with core zone till today despite human interference as traditional uses, limited uses with time, activity and period; so as to use without destroying the target species and habitats saving for next generations, to protect and/or recover resource values human-treated for saving their natural process. In the vulnerable zone, scientific studies as well as improvement activities can be permitted for ensuring sustainability of resource values.
- The areas having the characteristics as follows are reserved as Sustainable Use Zone, in which it is permitted economic activities according to the rules for nature conservation, is in between core zone and regions human-treated, so as to use natural resources sustainably in harmonized with ecological environment. In Sustainable Use Zone the activities permitted as below; hiking trail, view point, wildlife observation point, rest stop etc. agricultural activities, traditional fishing, pasture, picking up non-wood forest products.
- The areas having the characteristics as follows are reserved as Controlled use zone, in which there are tourism and recreational areas, settlement areas, so as to

take advantage of tourism and recreational services in the protected area, if applicable provide development in available settlement areas. In the controlled use zone; there can be private properties, settlements, allocable and access control point/facility, recreational use, bungalows (hunting lodge, forest rest house) camping sites, tent camping sites, visitor centers, administrative office, training centers etc.

- Implementation principles and rules are defined for each zone.
- In order to make sustainable any elements restrictedly preserved, even if it is outside of borders of the protected area or far away from the area; a number of measures are defined for preserving them together with the integrative element mutually dependent in terms of hydrological and ecologically. When reported that any resource value should be preserved, a detailed study is evaluated.
- Long Term Development Plan/Development Plan determines the roles and responsibilities of interested/related parties.
- Success criteria are described on monitoring the activities in the plan and resource values separately.
- Plan introduces the sub-plans and programs and determines the general principles. Also, as soon as plan is approved, forecasted budget is prepared with six month, annual plan and programs.
- Planning is carried out by a working team in which there are related variable professional disciplines to evaluate data from analytic survey phase.
- The borders of the protected area are natural borders drawn including the resources and surrounding the area. However, even if the borders drawn without taking into account natural borders, biological and ecological evaluations in the planning process are made by taking into account natural borders.
- All uses within the protected area and dependent sub- and super-structures are planned without minimum effect on the resource values and conservation-use balance is supervised.
- In the visitor activities anticipated for cave ecosystems, planning is based on the untouched/original form of the cave.
- In the planning process, it is essential that; interested party analysis is performed, improving methods for participation of the local people and the other parties and using participatory tools. Therefore, table on stakeholderrelated party is prepared.
- Even if the project, to be a threat on the resource values, is outside of the protected area; necessary measures are taken by the related department. Threat analysis table is prepared.

Long Term Development Plan/ Development Plan is like that; describing, protecting, improving, managing and introducing the resource values in line with the above said planning principles, having a function of guideline for larger scale plans and making decisions on the scale of 1/25.000, also including sub-plans and action plans with maps and the other visuals, revisable documents in a specific time period (Anonymous 2012).

According to the size of the area, be studied in a larger scale (1/10.000) or smaller scale (1/50.000).

4.PLANNING METHODOLOGY

Planning methodology has three phases like in planning process:

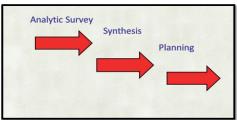


Figure 4.1 Planning Process

4.1. Analytic Survey

In order to be plans are reliable and applicable, current situation should be determined based on the data from the field surveys and literature research on natural and cultural resource values, socio-economic and demographic features of local people, expectations from the plan. Informative map sheets are constituted by transferring these data to the base maps.

For natural characteristics of the area: The followings are searched; topography, geological and hydrogeological structure, climatology, soil structure, land use classification system, ecological features; ecosystem forms, vegetation and habitat types, biological structure; flora, fauna.

For historical, archeological and cultural structure: Archeological remains are searched as well as the historical development and importance of them for the area.

Socio-Economic structure: Determined that; family structure, education, literacy, folkloric structure, etc, demographic features and income sources of local people.

Ownership, administrative and legal situation: Searched that; land use, administrative and legal situation.

Recent land use situation; Determined that; present roads/routes/paths, settlements, isolated/individual developments, industry, manufacturers, stone quarry, education, health, agricultural areas, forest lands, water reservoirs, energy transmission lines, water treatment plants, regulated or non-regulated touristic uses.

Tourism and Recreation: Determined that; features of the touristic facilities, number of tourists in the protected area or surrounding of it aiming present utilization of the area in terms of visitor management;

- Form of the utilization,
- Intensity,
- Periods of utilization,
- Functions and capacities of visitor service facilities and present structures and facilities,
 - Number of visitors, departure-arrival periods,
 - Visited sites.

In order to determine recreational resource values of the area, detected that;

- Determined the landscape characteristics (forest, lakeside, open spaces etc) preferred as recreational purposes in order to recreational tendencies and preferences of the visitors.
- Made necessary questionnaires with interested parties as well as interviews with the administration.
- Determined the outstanding regions of recreational resource values as areal or point base.

Technical and Social Background: Social Background; detected the medical, administrative, educational etc circumstances, numbers and sufficiency of settlements in the planning area and interacted/surrounding area.

Technical Infrastructure; determined technical standards and service opportunities of present technical infrastructure (road, potable and municipal water, wastewater, electricity, phone line, solid waste, parking lot... etc.).

Environmental problems: detected the conditions like all kinds of pollutions (water, air and soil), causes, effects on the planning area and interacted/surrounding area, all kinds of activities to alter the topography and effects on the area, and activities affecting the natural pattern of the area adversely.

4.2.Synthesis

The aim of this part is to define and understand why this area is so important. In this part the followings are described the values integrated with the protected area in accordance with data from analytic survey report in which expressed recent circumstances of the area, and also described problems and opportunities to be based on the planning by means of interacting these vales with each other.

Moreover, in this part it is defined all kinds of effects on fundamental characteristics of the area, inside and outside of the area, legal and anthropogenic restrictions and opportunities, threats.

In this phase, importance of the area and relations and interactions among resources and human-resource rather than synthesis of data in the analytic survey.

4.3 Planning

Being in conservation-utilization balance, the activities to be performed in the protected areas are determined. In accordance with the targets, aims and planning criteria of Long Term Development Plan/ Development Plan, decisions for spatial plans (1/25.000 scaled map) are developed.

In order to provide effectiveness of Plan decisions and provisions, below activities are conducted in terms of conservation, utilization and management:

- Organizational structure
- Action plans
- Criteria for monitoring and evaluation.

4.3.1 Planning decisions

General conservation and utilization decisions are taken, separate conservation and utilization decisions are taken for each zone divided by zoning.

Planning decisions are pointed on the map also so that making it easy for the next implementations and defining the settlement areas likely to be built.

Zoning: According to 2012/9 numbered Circular Letter on Determining Protection Zones in the Protected Areas 4 zoning systems are determined.

- 1. Core Zone; Isolated territories conserved naturally without any human interference by this time. Only researches intended to be introduced on conservation of the National Park and the scientific studies permitted only by the Administration.
- 2. Vulnerable Zone; Areas utilized somehow, but when improving/ recovering the resource values the zone hereafter can tend to core zone. However, unlike the core zone, ecologic restoration and rehabilitation works can be carried out.
- 3. Sustainable Use Zone; Economic activities can be permitted in this zone. Also, there are some other activities; tour route, hiking trail, viewing terrace, wildlife observation point, rest stop etc.

4. Controlled Use Zone; Involving tourism and recreation areas, setllement sites in the protected area. The following activities are also projected and implemented in this zone; settlement sites, entrance checkpoint, visitor center, information/display unit, nature training center, recreational sites, tent camping site, bungalow camping site (hunting lodge, forest rest house) (Anonymous 2012).

4.3.2. Planning provisions

The part under which planning decisions are decreed somehow. It is set forth transparently clause-by-clause how and in what way to be implemented the planning decisions.

Planning provisions are comprised of the followings:

General Provisions: There are provisions for the whole area and creating coherence with the general use/utilization decisions.

Specific Provisions: There are some specific rules to zones determined by zoning study and creating coherence with the regional/zonal decisions.

4.4 Sub-Plans and Programs

In this part; there are some plan and programs like, Resource Management Sub-Plan, Ecotourism Sub-Plan, Visitor Management Sub-Plan, Ecological Agriculture Sub-Plan, Training and Awareness Raising Program, Volunteer Program etc. Sub-plans, projects and programs must be guide, directive and consist precise definitions.

4.5 Action Plan

Along with the action plan; which activity can be conducted when by responsible persons and with whom and which opportunities, also how monitoring and evaluation phase carried out by means of completion rate and achievement indicators for each activity.

Along with preparing action plans; in the implementation phase how fast the responsible persons should act and have a chance for estimating what matters can be arisen about protection and management of the area in the short and long run and in the medium term.

4.6 Monitoring-Checking and Evaluation Criteria and Methods

In the this part; in order to monitor and make evaluation about not only the activities but also the biodiversity, socio-economic and other resource values of the area, monitoring indicators are described. For example, indicators defined as special, measurable, accessible/achievable, realistic and periodic clearly on presence-absence in biodiversity, quantity - range, population density, range of agricultural areas etc..

5. APPROVAL AND ENFORCEMENT

Plan prepared by the Ministry of Forestry and Water Affairs submitted to related institutions and organizations for their opinions to take their positive opinions based on the 4th article of National Parks numbered 2873. In line with these opinions Long Term Development Plan is put into force with the last corrections after Ministerial Consent.

6. PROJECTS

Construction Plans are prepared if it is necessary for the areas having completed Long Term Development Plan and Development Plan. (Areas excluding Appendix 14th article of Forestry Law numbered 6831) Together with the Construction Plan studies, it is aimed at planning the area in accordance with conservation-utilization balance. For the areas Long Term Development Plan and Development Plan having completed and Construction Plan/Conservation Development Plan having approved, and to provide sustainable management and utilization of the areas including Appendix 14th article of Forestry Law numbered 6831, architectural and landscape implementation projects are designed.

In the 4th article of National Parks Law numbered 2873; planning is conducted according to:

Provision of "According to Development Plan, implementary development plan according to construction legislation for the areas to be settled are designed or have it designed in accordance with the development plan decisions and provisions, then these plans are put into effect by approval from Ministry of Environment and Urbanization" and Regulations on National Parks:

"Implementary Development Plan

Article 12 – According to the Development Plan for the National Park, implementary development plan for the areas to be settled are designed or have it designed in accordance with the development plan decisions and provisions then these plans are put into effect by approval from Ministry of Environment and Urbanization."

Also, projects are prepared according to 4th article of National Parks Law numbered 2873;

"According to the provisions stated in the third article, necessary projects for nature park, natural monument and nature conservation area are prepared or have it prepared and put into force by the Ministry of Forestry and Water Affairs by taking opinions from the Ministry of Culture and Tourism" (Anonymous 1983).

and Regulations on National Parks:

"Implementation Projects

Article 14 - Long Term Development Plan, local development plan and implementation plans prepared or have it prepared by the related Department according to investment projects are prepared and put into force by the Directorate General." (Anonymous 1986).

In the protected areas, determining the recreational areas is completed during the planning phase of Long Term Development Plan/ Development Plan. In accordance with the upper scale decisions, by taking into account physical and legal restrictions, Layout Plan, Landscape Implementation Project and Architectural Projects are designed on allowable sites in the area, also the following plan and projects are prepared such as visitor centers, administration building, panoramic museums, recreational areas, nature training center, entrance checkpoint, information units, camping sites (tent, caravan, bungalow, forest rest house), bird watching units, signboards, rain shelters; and being on the tour routes; viewing terrace, rest stops and stopping stations etc.

Project Preparation Process varies depending on type of project as seen in Figure 6.1.

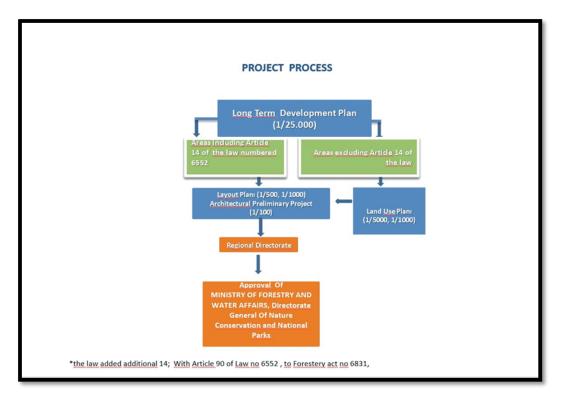


Figure 6.1 Project Preparation Process

6.1 Project Process

Steps for Landscape Project

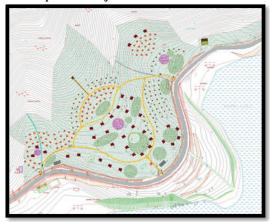
- Layout plan1 (1/500-1/1000 scaled)
- Landscape Implementation Projects (1/200, 1/100, etc)
- Structural Landscape Implementation Projects
- Floral Landscape Implementation Projects
- Structural and Floral Location Lists
- Sections (longitudinal, Vertical, elevation, etc)
- Views
- Detailed map sheets (in appropriate scales)

Steps for Architectural Project

- ➤ 1/200 or 1/500 scaled Layout Plan,
- \triangleright 1/100-1/50 scaled Floor Plans,
- > 1/100-1/50 scaled Roof Plan,
- ➤ 1/100-1/50 scaled Sections
- > 1/100-1/50 scaled Views
- Detailed map sheet

After prepared/having it prepared the Landscape and Architectural projects, they are submitted for approval to Directorate General of Nature Conservation and National Parks. After the approval they are implemented (Anonymous 2016).

6.2 Examples for Projects



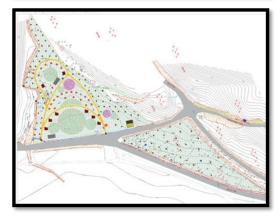


Figure 6.2 Abant Nature Park 'Recreational Area Landscape Project'





Figure 6.3 Küre Mountains National Park 'Top Square Recreational Area





Figure 6.4 Sakarya Square Battle Historical National Park Martry's Cemetry Projects



Figure 6. 5 Sarıkamış Allahuekber Mountains National Park 'Entrance Gate'



Figure 6.6 Project on Sarıkamış Operation Caucasian Front Display and Research Center



Figure 6.7 Project application works/building site on Sarıkamış Operation Caucasian Front Display and Research Center

7. CONCLUSIONS

In the areas within the scope of Law on National Parks numbered 2873, it is provided that the areas protected, managed sustainably and effectively by means of the plans specified above, in these plans necessary measures are taken for biodiversity loss associated with human interference, also for in-situ conservation of natural species, habitats and natural landscape by taking into account natural and cultural values in conservation-utilization balance.

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