

Assessment of Existing Policy Tools Related to Non-Wood Forest Products Management in Turkey

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FOREWORD

A Letter of Agreement (LoA) was signed between Food and Agriculture Organization of the United Nations (FAO) and the Chamber of Forest Engineers of Turkey (CFE) for "*Provision of Technical Guidelines on sustainable management of NWFPs and the Status Reports on specific selected products*" on 20 December 2019.

According to this LoA, the Service Provider will undertake the following activities:

1. Identify, select and showcase Non-Wood Forest Products (NWFPs) that have an economic impact on rural and national economies and environmental importance in the sense of biodiversity.
2. Review the existing national policies and action plans related to specific NWFPs in Turkey and provide recommendations to strengthen governance.
3. Analyze and map out the selected NWFPs taking into account the potential impact on rural workforce, in particular women and youth.
4. Conduct consultation meetings on the findings of the review with relevant stakeholders (local, national and private) to enhance their inputs.
5. Prepare guidelines on sustainable management, production and marketing of NWFPs in line with international standards and market requirements.
6. Prepare Status Update Reports on the selected NWFPs along with recommendation in the value chain.
7. Consolidate the findings with other ongoing projects in REU or Mediterranean Region.

In this context, a preparatory meeting was held on **15 January 2020** with the presence of relevant people from the General Directorate of Forestry of Turkey (GDF) of the Ministry of Agriculture and Forestry (MAF) and CFE. A working group was established to carry out the necessary studies. This working group selected chestnut, laurel, pine honey, resin and truffle as the NWFPs to work in detail due to their importance of "*economic value, contribution to biodiversity and the potential impact on rural workforce, in particular women and youth*" as stated in the LoA.

After several meetings and examining case studies, following the first report "NON-WOOD FOREST PRODUCTS ASSESSMENT REPORT OF TURKEY", a second report titled "ASSESSMENT OF EXISTING POLICY TOOLS RELATED TO NON-WOOD FOREST PRODUCTS MANAGEMENT IN TURKEY" was prepared. It gives general information about the NWFPs related policies and instruments in Turkey.

METHODOLOGY

While preparing this report entitled “ASSESSMENT OF EXISTING POLICY TOOLS RELATED TO NON-WOOD FOREST PRODUCTS MANAGEMENT IN TURKEY” the following issues and case studies have been taken into consideration:

1. Opinions and contributions of CFE, GDF, FAO and relevant NGOs expert,
2. Turkey's current legislation and practices,
3. FAO's web page on non-wood forest products
4. Other publications on the subject, especially the publication "Non-Wood Forest Products in International Statistical Systems".
5. Web pages of completed or ongoing projects, and publications and reports produced within this framework:
 - a. INCREDIBLE- Innovation Networks of Cork, Resins and Edibles in the Mediterranean Basin Project
 - b. StarTree- A pan-European project to support the sustainable exploitation of forest resources for rural development.

The GDF as a corporate body under the Ministry of Agriculture and Forestry (MAF) is responsible for sustainable forest management activities including NWFPs. GDF has center and regional departments. At the center level it operates with 21 Departments, which one of them is the DNWFPS.

The preparation of this report has been done in close cooperation with DNWFPS. All the data collected are approved by this department. The official correspondences with other institutes like Turkish Standards Institution, Ministry of Trade and other have been executed through this department starting from December 2019.

There are different terminologies and definitions used for NWFPs. Considering this current situation, a scheme has been created for this report by İsmail Belen (Senior Agriculture and Forestry Expert, Ministry of Agriculture and Forestry of Turkey) as shown in relevant section. In this scheme NWFPs are divided into four groups according to their origin/sources, product type, usage and sales.

ACKNOWLEDGEMENTS

This report was prepared by the team of CFE consultants working in close collaboration with respective institutions and local stakeholders. The team is grateful for the contributions and support provided by the FAO under the LoA. The team also acknowledges the cooperation of the General Directorate of Forestry, particularly Department of Non-Wood Forest Products and Services (DNWFPS) staff that provided information and contributed with feedback to the report.

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ACRONYMS AND ABBREVIATIONS

CFE/OMO	Chamber of Forest Engineers of Turkey
Communiqué of NWFPs Sales Principles	Communiqué on Inventory and Planning of NWFPs and Production and Sales Principles
DBM	Department Business and Marketing of GDF
DFVR	Department of Forest Villages Relations
DNWFPs	Department of Non-Wood Forest Products and Services of GDF
ENDP	Eleventh National Development Plan (2019-2023) of Turkey
EuroStat	European Statistical Office
FAO	Food and Agriculture Organization of the United Nations
FRA 2020	Global Forest Resources Assessment 2020
GDAH	General Directorate of Animal Husbandry
GDARP	General Directorate of Agricultural Research and Policies
GDFC	General Directorate of Food and Control
GDF	General Directorate of Forestry
GDPP	General Directorate of Plant Production
ha	hectare(s)
INCREDIBLE Project Basin Project	Innovation Networks of Cork, Resins and Edibles in the Mediterranean Basin Project
KOSGEB	Small and Medium Enterprises Development Organization of Turkey
LOA	Letter of Agreement
MAF	Ministry of Agriculture and Forestry of Turkey
MT	Ministry of Trade of Turkey
NWFP	Non-Wood Forest Product
OG	Official Gazette of Turkey
OWL	Other Wooded Land
StarTree	A pan-European project to support the sustainable exploitation of forest resources for rural development.
TAB	Turkish Association of Beekeepers
TKDK	Agriculture and Rural Development Support Institution
TL	Turkish Lira

TSE	Turkish Standards Institution
TUIK	Turkish Statistical Institute (TurkStat)
UN	United Nations
UNDP	United Nations Development Programme
USD	United States Dollar

EXECUTIVE SUMMARY

In addition to environmental and ecosystem contributions such as conservation of biological diversity, food security, combating climate change, sustainable water and land management, ecosystem services, forests are also home to economically important products.

The forest and tree products are classified as wood products, non-wood products and forest services. FAO defines non-wood forest products (NWFPs) as “goods derived from forests that are tangible and physical objects of biological origin other than wood” (FAO,2020a). NWFPs provide food, income, and nutritional diversity for an estimated one in five people around the world, notably women, children, landless farmers and others in vulnerable situations. (FAO, 2018).

NWFPs have also attracted considerable global interest in recent years due to the increasing recognition of their contribution to environmental objectives, including the conservation of biological diversity. Like many other countries Turkey gives great importance to NWFPs by making the necessary legislative and administrative arrangements. Article 45 of the Constitution includes the provision of *“increasing the vegetative and animal production, evaluating the vegetal and animal products and taking the necessary measures for the real values to be obtained by the producer”* (Anonymous, 2020a). In many articles of the Forest Law No. 6831, there are issues regarding the evaluation of forest products and non-wood forest products.

As one of the reflections of the importance given to the subject by Turkey, **the Department of Non-Wood Products and Services** (DNWFPS) was established as the central unit of the GDF in 2011. The DNWFPS is responsible to determine, carry out or make works related to the inventory, value assessment, diagnosis, promotion, planning, mapping, project design, production and marketing of NWFPs and forest ecosystem services. (Anonymous, 2018).

This report titled " ASSESSMENT OF EXISTING POLICY TOOLS RELATED TO NON-WOOD FOREST PRODUCTS MANAGEMENT IN TURKEY " has been prepared in close cooperation with DNWFPS. The aim of the report is to assess the NWFPs exist in Turkey and managed by the GDF. In this context, issues such as NWFPs definition, official list, inventory, collection, sale, economic value and contribution to the national economy were examined.

This report was prepared in close and intensive cooperation with DNWFPS. All collected data reviewed and validated by this department.

1. CHAPTER 1: INTRODUCTION

1.1. General Information on Turkey's Forests and Forestry

Turkey's forests are an extremely important asset: they provide multiple environmental services including watershed protection and erosion control, raw material for the sector including a world scale wood panels and furniture industry, a rich and diverse source of non-wood forest products, employment in rural areas but especially in forest villages, and fuelwood for large numbers of rural dwellers who have limited access to conventional energy sources.

Table 1 shows the country area, population, forest area and growing stock of Turkey. (GDF, 2020). As seen in this Table, FAO and national institutions give a different number for Turkey's forests. This is due to the difference between national forest definition and the definition used by FAO. Turkey's Forest Law describes the forest as "naturally grown or artificially grown tree and shrub communities are considered forests with the areas what the trees occupy". According to this definition, the areas defined as other wooded lands (OWL) by FAO also fall into the forest area of Turkey. This is an important issue for NWFPs, because OWLs are more favorable environments for NWFPs comparing with high forests. The majority of the NWFPs are found in forests, principally along the coast line with canopy cover less than 11 percent (degraded forest) (World Bank, 2017). Figure 1 shows the distribution of forests in Turkey. (GDF, 2012)

Table 1. Turkey's Land, Population and Forests

Indicator	Unit of measure	Amount
Country area (FAO,2016)	ha	78 535 000
Forest area by FAO (FAO,2016)	ha	11 715 000
Forest area by national definitions (GDF,2020) ¹	ha	22 740 297
Private forest area	ha	18 000 (0.080% of total forest)
Growing stock (2019)	m ³	1 679 356 210
Annual increment (2019)	m ³	47 200 000
Industrial wood in the rough production-2019	m ³	22 113 248
Annual fuel wood production-2019	Stere ² /m ³	5 589 798 stere/3 912 858 m ³
Country population (TURKSTAT, 2020)	Person	83 154 997
Forest villages subject to Forest Act (GDF, 2018b)	Number	22 712
Forest villagers ³ subject to Forest Act	Person	7 013 712

¹ Includes other wooded land with less than 10 % canopy cover, such as maquis, shrublands, degraded forestlands, etc.

² Stere: Volume of stacked wood, actual wood volume is equal to 0.7 m³.

³ The term "forest villagers" is a specific term used in Turkey. Turkey's rural inhabitants can be classified into two groups, namely forest villagers and other villagers. Forest villagers are also divided based on the location of the villages: located inside forests or those near/adjointing forests. They are also classified on the basis of whether or not production is performed in forests within village boundaries, under Articles 31 and 32 of the Forest Law No. 6831. This classification also plays a determining role in terms of the products generated from forests and subsidies provided (World Bank, 2017).

Figure 1. Distribution of Turkey's Forests



The Forestry sector has been guided by many policy instruments namely;

- Forest Law no 6831 that ratified in 1956,
- the Eleventh Development Plan (2019-2023),
- the National Forestry Program (2004-2023),
- the Strategic Plan of the Ministry of Agriculture and Forestry (2019- 2023) and,
- the GDF's Strategic Plan (2017-2021).

1.2. Definition Used by FAO and Turkey for NWFPs

FAO classifies the forest and tree products as wood products, non-wood products and forest services and defines NWFPs as “goods derived from forests that are tangible and physical objects of biological origin other than wood”. (FAO,2020) For FRA 2020, NWFPs were classified as either plant-based or animal-based. Plant-based products include food, fodder, raw material for medicine and aromatic products, raw material for colorants and dyes, raw material for handicrafts, utensils and construction, ornamental plants, exudates, and other plant products. Animal-based products comprised wild meat, honey and beeswax, hides, skins and trophies, living animals, raw material for medicine, raw material for colorants, other edible products and other non-edible products.

For Turkey, “Communiqué No. 302 on Inventory and Planning of NWFPs and Production and Sales Principles (Communiqué of NWFPs)”, which was put into practice in 2016, is the most comprehensive and directing legislation on NWFPs. (GDF, 2016)

The Communiqué of NWFPs is a very comprehensive and useful example and could be used as a guideline for other countries.

Having 116 pages including its annexes, this Communiqué of NWFPs has been divided to 9 parts as shown below.

- Part 1: Purpose, Scope, Basis and Definitions
- Part 2: Inventory and Planning of Non-Wood Forest Products
- Part 3: Production Procedures and Principles of Non-Wood Forest Products
- Part 4: Sales Procedures and Principles of Non-Wood Forest Products
- Part 5: Programming of Production and Sales of Non-Wood Forest Products
- Part 6: Production and Sales Techniques of Some Non-Wood Forest Products
- Part 7: Principles of Collection of Production Residues and Plant Materials Harmful to the Forest
- Part 8: Repealed Provisions, Enforcement of this Communiqué -Circular
- Part 9: Attachments-Annexes of the Communiqué

The Communiqué of NWFPs expresses Turkey’s official terminology for NWFPs used in this report as shown at Text Box 1

Text Box 1. Official Definition of NWFPs in Turkey

Non-Wood Forest Product (NWFP): It refers to biological and mineral origin products other than wood obtained from forests and trees, and other products exposed during the production of wood such as bark, chip, shrub, root, stump, and cone.

1.3. Classification of NWFPs in Turkey

Communiqué of NWFPs of the GDF classifies the NWFPs as shown in Table 2 based on their forms.

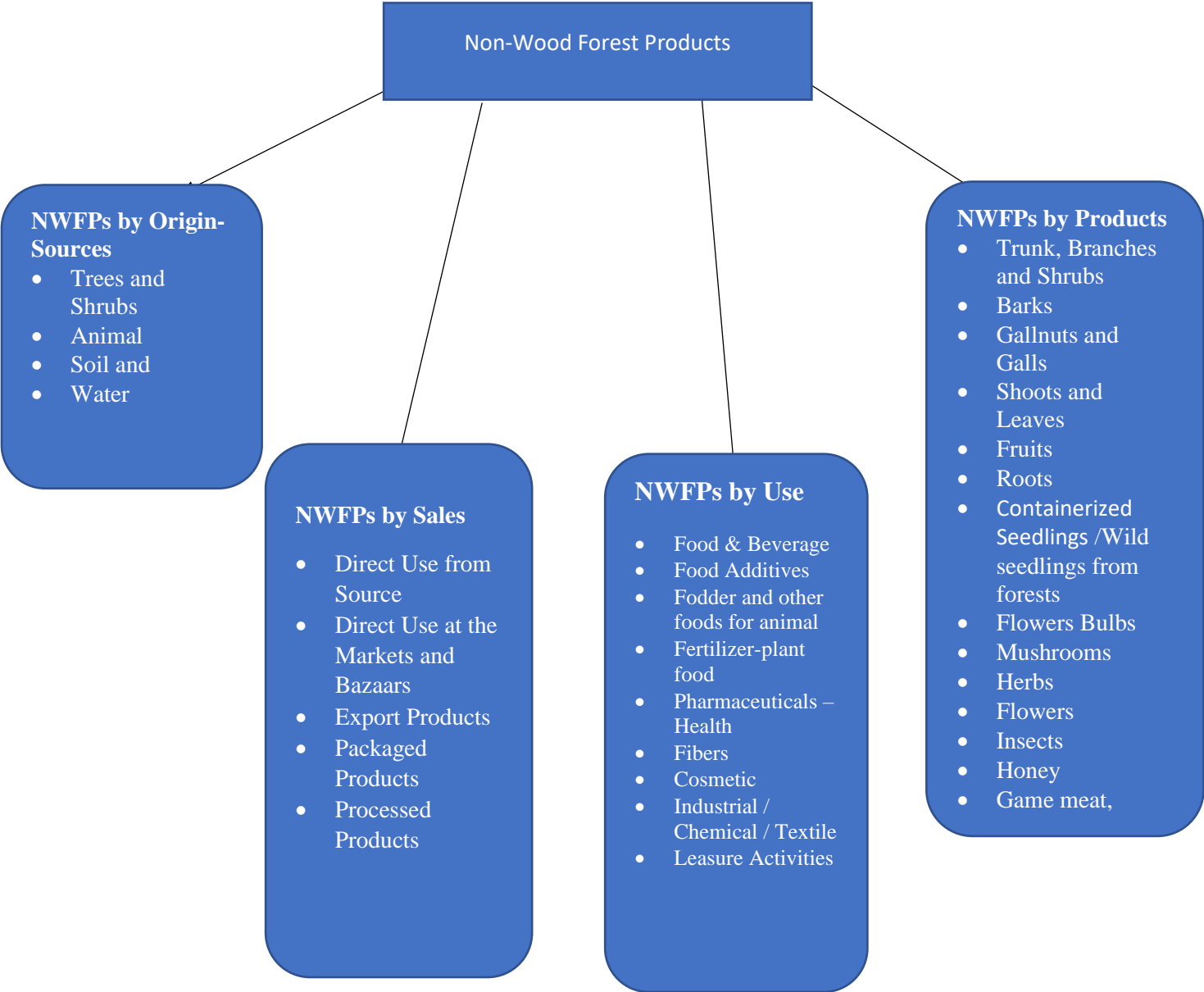
Table 2. Classification of NWFPs in Turkey based on their forms

No	Groups	Species examples that can be included in these groups
1	Trees	Stone pine, linden, carob, wild pear etc.
2	Shrubs and Bushes	Bay-Laurel, boxwood, rosehip, bilberry etc.
3	Herbs	Sage, thyme, rosemary, chamomile, mint etc.
4	Geophytes	Salep, cyclamen, snowdrop etc.
5	Algae-Lichens	Bryophytes, Usnea barbata, lichens etc.
6	Mushrooms	Porcini (bear mushroom), common morel, truffles
7	Other NWFPs	Forest humus, harvesting residues, pine roots etc

This classification has been made mainly for inventory purposes. There have been some missing NWFPs in this system, especially for animal productions like game meat, bat manure, as well as the others like drinking water bottled in forest, decorative ornamental stones. Changes in the legislation are needed to include such important products as game meat.

In order to better understand the subject, the scheme (Figure 2) has been developed within this report. Accordingly, NWFPs are dealt under four main titles according to their origin-sources, final product shapes, intended uses and sales patterns.

Figure 2 Scheme of NWFPs developed for this report⁴



⁴ Created by İsmail Belen (Senior Agriculture and Forestry Expert, MAF, Turkey)

2. CHAPTER 2: GENERAL POLICIES AND ADMINISTRATIVE STRUCTURES ON NWFPS IN TURKEY

Turkey has a written, codified constitution, contained in a single document, enacted in 1982. It is a unitary constitution, with power concentrated in the central government, which has supreme authority.

Turkey has a presidential system. Previously, the country was governed by the parliamentary system, and through the constitutional amendments, the system of governance has been changed to the current one, effective from 9 July 2018. Accordingly, the President is elected directly by the votes of the electorate, and the members of parliament, the Grand National Assembly of Turkey, are elected through proportional representation. The system of governance has three branches, namely the executive, legislative and judicial branches, which are subject to the principle of separation of powers.

The main domestic sources of law in hierarchical order can be listed: Constitution, International Treaties approved by Grand National Assembly, Law, Presidential decrees, Regulations, and Communiqués. Based on this structure great number of development plans, programs and strategies are formulated by respective institutions across the country.

The GDF is responsible for integration of the policy and supervision of the implementation in the field of sustainably management of forestry including of NWFPS under Strategic Plan of GDF (2017-2021). Besides strategic plan, the other policy documents guiding the work of GDF are, Forest Law no 6831, the 11 Development Plan (2019-2023), the National Forestry Program (2004-2023), the Strategic Plan of the Ministry of Agriculture and Forestry and a few numbers of Communiqués legislated by the DNWFPSs of the GDF.

2.1. Related Articles of the Constitution

The existing Constitution of the Republic of Turkey was adopted on 9 November 1982 and still in force with some amendments. The Constitution has 177 Articles divided in a preamble and 7 Parts: General Principles (I), Fundamental Rights and Duties (II), Fundamental Organs of the Republic (III), Financial and Economic Provisions (IV), Miscellaneous Provisions (V), Provisional Articles (VI) and Final Provisions (VII). The articles related to forests and forest villagers as well as farmers working in agriculture and livestock sector are covered in the section of economic provisions and relevant articles are given in below.

ARTICLE 169- forests conservation and improvements- The State shall enact the necessary legislation and take the measures required for the protection and extension of forests. Burnt forest areas shall be reforested; other agricultural and stockbreeding activities shall not be allowed in such areas. All forests shall be under the care and supervision of the State.

The ownership of state forests shall not be transferred. State forests shall be managed and exploited by the State in accordance with the law. Ownership of these forests shall not be acquired by statute of limitations, nor shall servitude other than that in the public interest be imposed regarding such forests. Acts and actions that might damage forests shall not be permitted. No political propaganda that might lead to the destruction of forests shall be made; no amnesties or pardons specifically for offences against forests shall be granted. Offences committed with the intention of burning or destroying forests or reducing forest areas shall not be included within amnesties or pardons.

The reducing of forest areas shall be prohibited, except in respect of areas whose preservation as forests is considered scientifically and technically useless but conversion into agricultural land has been found to be definitely helpful, and regarding agricultural lands such as fields, vineyards, orchards, olive groves or similar areas which technically and scientifically ceased to be forest before December 31, 1981 and regarding built-up areas near cities, towns or villages whose use for stockbreeding has been found advantageous.

ARTICLE 170 protection of forest villagers- Measures shall be introduced by law to secure cooperation between the State and the inhabitants of villages located in or near forests in the supervision and exploitation of forests for the purpose of ensuring conservation of forests and their integrity, and improving the living conditions of these inhabitants; the law shall also regulate the exploitation of areas which technically and scientifically ceased to be forests before December 31, 1981; the identification of areas whose preservation as forest is considered scientifically and technically useless, their exclusion from forest boundaries and their improvement by the State for the purpose of settling all or some of the inhabitants of forest villages in them, and their allocation to these villages. The State shall take measures to facilitate the acquisition of equipment and other inputs by these inhabitants. The land owned by villagers resettled outside a forest shall immediately be reforested as a State forest.⁵

ARTICLE 171-Promotion of Corporative System - The State shall take measures, in keeping with national economic interests, to ensure the development of cooperative system which shall be primarily aiming at increase in production and protection of consumers.

ARTICLE 45- protection of farmers working in agriculture and livestock- The State facilitates farmers and livestock breeders in acquiring machinery, equipment and other inputs in order to prevent improper use and destruction of agricultural land, meadows and pastures and **to increase crop and livestock production** in accordance with the principles of agricultural planning. The State shall take necessary measures for the valuation of crop and livestock products, and to enable producers to be paid the real value of their products.

2.2. Laws

2.2.1. Forest Law

The current Constitution (article 169-170) of Turkey is a primary source of substantive Forest Law. The Forest Law numbered 6831 was put in force in 1956 and still in action even though there has been several amendments and updates.

The first article of the Forest Law defines the forest as “trees and woodland communities, which are grown naturally or by human efforts are considered as Forest, together with their lands.

The related articles referred to forest products as follow;

⁵ This article of the Constitution stipulates that villages can be moved to other areas with more favourable living conditions and infrastructure thus reducing the anthropogenic pressure on forests. The state covers the costs of moving and re-settlement. It envisages afforestation of the areas evacuated by the moved villages.

- **Article 27**-The GDF determines methods and principles of Forest Products in the context of transportation, stacking and measurement works, as well as arrangement and use of shipping licenses. The GDF also identify what type of products to be numbered and stamped among trees to be cut from state forests and also tracks the fallen trees or trees cut for any other reason.
- **Article 29**-The tariff values of forest products from State forest are determined by the General Directorate of Forestry by regions and according to local market conditions, and approved by the Ministry of Forestry.
- **Article 30**- In market sales of forest products from State forest, auction is applied. The amount and quality of forest products in the auction must be organized in parties considering the sales principles and local necessities. In case of meeting needs of public institutions and agencies or when considered necessary and useful in urgent needs of sale, all kinds of forest products can be sold by allocation, with market prices. The principles and conditions of sales mentioned in this Article are determined by the Council of Ministers.
- **Article 37**-Except logs, poles, mine props, industrial wood, paper wood, fuel wood, fiber wood, stick, resin, resinous wood, boxwood, storax included in the annual production program of the State Forests, all other kinds of forest products and residues are allowed to be utilized in determined locations and periods, giving priority to forest villages development cooperatives or to neighboring villagers or workers as with the payment of tariff prices according to Article 40 of the Forest Law.

In case of determination and approval of the unwillingness of the locals or cooperatives to undertake this harvesting/production job or in inadequacy of manpower, such products and remains are allowed to be utilized by others under the same conditions or can be produced by the forest management and sold. The harmful roots and shrubs and other harmful plants determined by General Directorate of Forestry can be permitted to be cut, uprooted and collected under the conditions determined by the forest management. The people who cut, grub up, uproot and collect such plants do not pay any cost.

- **Additional Article 12:** Degraded or unproductive forest areas are subject to afforestation; erosion control and rehabilitation works. Required species of naturally occurring species in these areas are protected and rehabilitated. In addition, areas without tree cover (open spaces) in the forest (forest soil, other scrub areas, etc.) are rehabilitated by sowing seeds, planting saplings or grafting with species that grow naturally around.

Non-wood forest products obtained from afforested, erosion control and rehabilitated areas can be given to the people/entities with the tariff price in the following order of priority.

- 1-Priority is given to village legal entities who maintain these areas,
- 2- Agricultural development cooperatives,
- 3- Unions established within the framework of "Agricultural Producer Unions" law,
- 4- Directly to the local people.

2.2.2. Organic Agriculture Law

The collection / harvesting of NWFPs mainly falls under the scope of "harvesting products from natural areas and sources". Therefore, in addition to the Forest Law, "Organic Agriculture Law" numbered 5262 is one of the important Laws.

According to Article 7 of the Organic Agriculture Law, a regulation "determining the procedures and principles for harvesting products from forest areas" should be prepared.

A regulation covering exclusively non-wood forest products has not yet been prepared in line with Organic Agriculture Law so far. However, the "Regulation on The Principles and Application of Organic Farming", which includes the issues related to the products collected from forests, was published in the Official Gazette No. 27676 dated 18.08.2010.

Despite this, it is considered that the coordination between the General Directorate of Forestry (GDF) and the General Directorate of Plant Production (GDPP) should be increased and the legislation should be reviewed and updated together on plant-based NWFPs.

This situation is also the case with the General Directorate of Animal Husbandry (GDAH) for pine honey which is considered an "animal/insect-based non wood forest product".

2.3. Presidential Decisions and Decrees

In Presidential Government System, which was adopted on 9 July 2018 in Turkey, the President is entitled to issue Presidential Decrees on the matters related to executive power without the need for an enabling law. Presidential Decree, being a fundamental norm as per regulated directly under the Constitution, is a general and framework regulative transaction.

Presidential Decree 4 on "Organization of Affiliated, Related, Associated Institutions and Organizations with Ministries and other Institutions and Organizations" published on 15.07. 2018. The articles in which the GDF responsibilities including NWFP management described as follow:

- To ensure the continuous supply of forest products and services, to operate forests according to technical, sociocultural, ecological and economic requirements, to carry out the production, transportation, storage and operation of forest products, to market these products at home and abroad.
- Establishing and operating revolving funds and other necessary units to ensure maximum utilization of the products and services provided by forest ecosystems, shutting down these units when necessary, buying or renting all kinds of materials, land, buildings, facilities, installations, and exchanging when necessary; to carry out their maintenance and repairs, to provide the machines and service vehicles required by the services, to make their maintenance and revisions, to make any necessary infrastructure work in the forests, to conduct survey projects for the necessary roads for forestry activities, to carry out or have maintenance and repair works.
- To work to expand the use of forest products and services, to work in close cooperation with the private sector, non-governmental organizations and universities that produce, process, market, import and export all kinds of forest products, to provide consultancy at home and abroad, projects to implement, to engage in all kinds of activities to raise public awareness about forests and forestry.

According to the Presidential Decree 4, the GDF is the main institute for NWFPs. As described in the “Administrative Structure” section, the main unit of the GDF for NWFPs is the Department of Non-Wood Forest Products and Services (DNWFPS). Beside the DNWFPS some of the other departments of GDF as Department of Business and Marketing (DBM) and Department of Forest Village Relations (DFVRs) have some responsibilities and roles on NWFPs.

Apart from GDF, the GDPP and the GDAH has responsibilities about NWFPs.

2.4. Development Plans

According to Article 166 of the Constitution of the Republic of Turkey, the Government/State must prepare “Development Plan” to ensure economic, social and cultural development for every five year. Development initiatives are carried out according to the Development Plans. The valid Development Plan provide guidance for all government agencies. Annual budgets are prepared on the basis of these plans. The existing and ruling Development Plan (The Eleventh Development Plan (2019-2023) which was prepared by the Presidency of Turkey will cover the years 2019-2023 was approved by the Grand National Assembly of Turkey (Turkey’s Parliament) on 18.07.2019 and published at the Official Gazette at the date of 23.07.2019 and numbered 30840.

The Eleventh Development Plan (2019- 2023) is the first development plan prepared under the Presidential Government System, lays down development vision of Turkey with a long-term perspective and will serve as a basic roadmap in improving the welfare level of Turkish people.

The Eleventh Development Plan envisages an overall change and breakthrough in all fields, and a resolute and uninterrupted implementation in the long-term perspective. The plan aims at transforming the economic structure, to maintain stability and sustainability in the long-term. The Development Plan offers a set of policies which will guide all sectors including agriculture, livestock and forestry in setting priorities for preparing other policy documents and strategic plans.

According to The Eleventh Development Plan, NWFPs are an important sub-element and has a great potential to contribute in the achievement of wide range of targets related to forestry, crop production and rural development. For instance, a specific attention was given in crop production ... in order to increase product reliability, diversity and production, **especially in high value added medicinal and aromatic plants”**

Moreover, NWFPs are an inseparable part of rural/village development and a crystal-clear vision “... traditional crafts specific to villages, agro-tourism, geographically marked products, ornamental plants, viticulture, apiculture, fishing, poultry farming, alternative farming products cultivation...” is placed in the development plan.

Capacity building was prioritized for rural people with special attention to women, young farmers and similar groups in order to increase the living standards at villages. Activities on training and required consultancy is provided in order to develop the human capital of rural society. The adult population, especially women and young entrepreneurs, will have access to non-formal education courses. Vocational training programs are envisaged on the development of high value-added local products.

2.5. Strategy Documents

2.5.1. National Basin Management Strategy (2014-2023)

A central priority of the National Basin Management Strategy is scaling up the rehabilitation of large watershed areas in order to reverse the long-term trend of environmental degradation, maintain and improve the productivity of land, water, and forest resources, and improve the welfare of the rural population. By implementation of this strategy it is aimed to i) improve the utilization of non-wood forest products, to increase the amount of products produced and marketed and the income generated by local villagers from these products by at least 15% (2015) ii) increase the training of local villagers on the cultivation, harvesting and marketing of non-wood forest products, and increasing the support provided to projects in this field

2.5.2. Strategic Plan of General Directorate of Forestry (2017-2021)

The Strategic Plan of General Directorate of Forestry is a national policy with a sectoral approach. The timeframe of this Strategic Plan is 5 years between 2017 and 2021. The overall purposes of this Strategic Plan are protection of forests and forest resources, forestry development, ecosystem preservation, and multifaceted benefits to society. The strategic objectives of this Strategic Plan are (i) protection of forests and forest products from biotic and abiotic damages, (ii) forestry development, increase in their efficiency and forest expansion, (iii) optimum benefit from forestry products and services, and (iv) institutional capacity building.

In the strategic plan there are specific targets on NWFPs aiming to contribute to the socio economic development of forest villagers through income generation forest establishment and determination and production of economically important NWFPs.

2.6. Regulations and Communiqués

2.6.1. Afforestation Regulation

The “Afforestation Regulation” published in the Official Gazette of 23 October 2019 and numbered 30927, contains strong links with NWFPs diversity and definitions:

Primary forest product: Wood, such as logs, poles, industrial woods, paper wood, fiber-chip wood, poles, rods, firewood obtained from all kinds of trees, shrubs and bushes,

Non-wood forest product⁶: Balsam oils obtained from all kinds of forest trees, shrubs and herbaceous plants and their shell, fruit, shoots, leaves, flowers, seeds, roots, onions, tubers and rhizomes, mushrooms and similar products.

The Afforestation Regulation covers the relevant procedures and principles about i) afforestation, rehabilitation, erosion and flood control, prevention of avalanches and landslides, pasture and nursery work ii) afforestation, reconstruction and forest nursery to be carried out by public institutions and organizations, where they establish the primary and non-wood forest products.

The Afforestation Regulation gives special attention to NWFPs and supporting of forest villages/villagers. The Item 5/3 of the Afforestation Regulation indicates that afforestation, rehabilitation or erosion control works can be carried out by the forestry administration (GDF) on behalf of the village legal entity. The sites where afforestation, rehabilitation or erosion control studies will be carried out are primarily selected from close to village settlements. If the habitat conditions are suitable, the trees that produce non-wood forest products rather than wood are used primarily. The

⁶ Different definitions existing in different legal texts. The consolidation of different definitions is needed.

maintenance of the areas established by the forest administration on behalf of the village legal entity can be carried out by village legal entities or individuals. The costs of the maintenance is paid by GDF. Non-wood forest products obtained from these fields are given to those who maintain the field at the tariff prices.

Provided that it is included in the project cultivation of medicinal, aromatic, tuberous and bulbous plants and all kinds of agricultural products could be allowed in these afforestation, erosion control and rehabilitation activities.

2.6.2. Forest Management Regulation

All forests, whether state-owned or not, are managed according to the "Forest Management Plans". The "Forest Management Regulation" published in the Official Gazette dated 5 February 2008 and numbered 26778 is currently valid which has been prepared within the framework of Article 26 of the Forest Act No. 6831. As it was explained in related section, the GDF is responsible to manage the forests in line with "Forest Management Plans". GDF has regional directorates, forest management directorates and forest management chiefs at the field level respectively. Currently there are 2140 forest management chiefs which means 2140 forest management plans.

According to the Article 11 of the Forest Management Regulation, forests are divided into

- a) Economic,
- b) Ecological,
- c) Social and cultural functions.

Inventory of a forest area consists of the following sections (Article 13)

- a) Area inventory,
- b) Habitat inventory,
- c) Biodiversity inventory,
- d) Growing stock and increment inventory,
- e) Inventory of non-wood forest products,
- f) Inventory of the non-productive functions of the forest,
- g) Socio-economic status inventory,
- h) Health status inventory.

Articles 26, 27, 28 and 29 of the Regulation explain how to make the inventory of non-wood forest products. Article 76 of the Regulation has the title "Ensuring continuity in the production of non-wood forest products". According to this article, it was possible to separate and manage some forest areas entirely for non-wood forest production.

2.6.3. Communiqué on Inventory, Planning, Production and Sales Principles of NWFPs

As it was explained at the "Introduction" section, "Communiqué No. 302 on Inventory, Planning, Production and Sales Principles of NWFPs", which was put into practice in 2016, is the most comprehensive and directing legislation for NWFPs.

Normally, all issues that are somehow included in the Constitution, Laws, International Conventions, Decrees and Regulations need to be taught and harmonized in this communiqué. It consists of 9 section as detailed below.

- Part 1: Purpose, Scope, Basis and Definitions
- Part 2: Inventory and Planning of Non-Wood Forest Products

- Part 3: Production Procedures and Principles of Non-Wood Forest Products
- Part 4: Sales Procedures and Principles of Non-Wood Forest Products
- Part 5: Programming of Production and Sales of Non-Wood Forest Products
- Part 6: Production and Sales Techniques of Some Non-Wood Forest Products
- Part 7: Principles of Collection of Production Residues and Plant Materials Harmful to the Forest
- Part 8: Repealed Provisions, Enforcement of this Communiqué -Circular
- Part 9: Attachments-Annexes of the Communiqué

This communiqué contains three definitions about NWFPs as indicated in Part 1: Purpose, Scope, Basis and Definitions

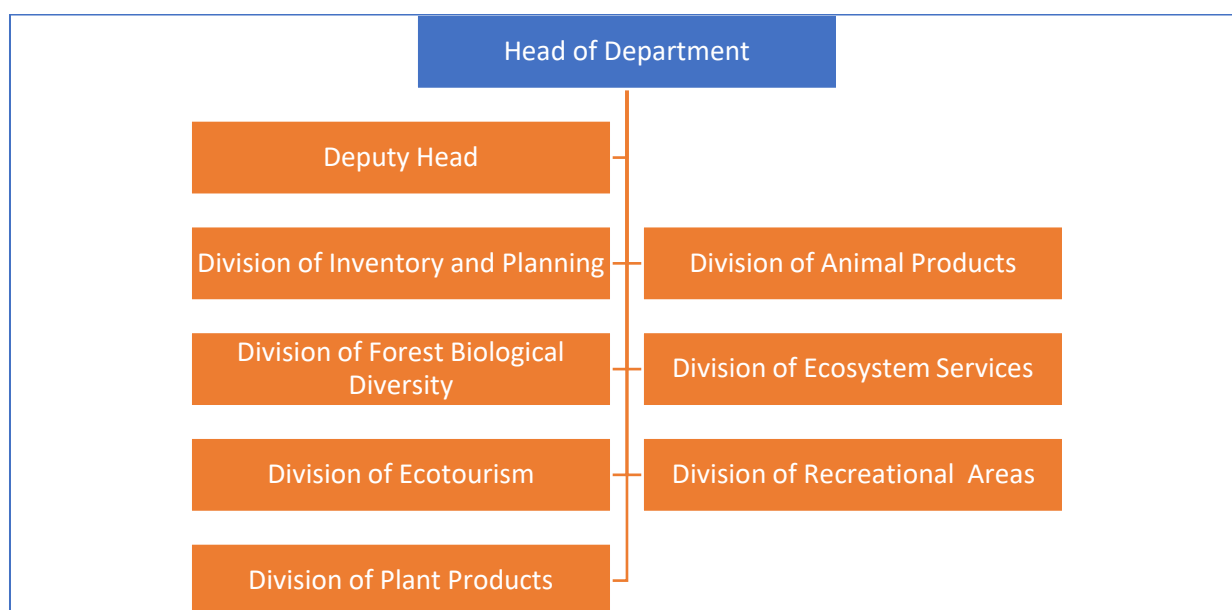
1. **Non-Wood Forest Product (NWFP):** It refers to biological and mineral origin products other than wood obtained from forests and trees, and other products exposed during the production of wood such as bark, chip, shrub, root, stump, and cone.
2. **Other NWFP:** It refers to all kinds of plant residues, bark, cones, roots, and organic and mineral origin such as humus, which are formed during wood production or for different reasons unlike NWFPs obtained by collecting all or some parts of living organisms.
3. **NWFPs with Priority:** It refers to non-wood forest products, which are demanded in domestic consumption, import and export, and therefore have high economic value and commercial potential, are widely distributed, have wide transport opportunities and are included in the annual work program of the Forest Regional Directorates.

2.7. Administrative Structure

NWFPs have also attracted considerable global interest in recent years due to the increasing recognition of their contribution to environmental objectives, including the conservation of biological diversity. Like many other countries Turkey gives great importance to NWFPs by making the necessary legislative and administrative arrangements.

As one of the reflections of the importance given to the subject by Turkey, **the Department of Non-Wood Products and Services (DNWFPS)** was established as the central unit of the GDF in 2011. The DNWFPS is responsible to determine, carry out or make works related to the inventory, value assessment, diagnosis, promotion, planning, mapping, project design, production and marketing of NWFPs and forest ecosystem services. (Anonymous, 2018).

Figure 3 Structure of DNWFPS



As shown at the Figure 3, the DNWFPS has divisions as Animal Products, Forest Biological Diversity, Ecosystem Services, Ecotourism, Recreational Areas and Plant Products.

According to the Item 338 of Presidential Decree 4 on “Organization of Affiliated, Related, Associated Institutions and Organizations with Ministries and other Institutions and Organizations” published in the Turkey’s Official Gazette at the date of 15.07. 2018, the duties of the DNWFPS are as follows:

1. To make inventory, value determination, diagnosis, promotion, planning, mapping, projecting, production, transportation, storage and marketing of non-wood forest products and forest ecosystem services.
2. To protect and develop in-forest water resources, to organize the activities to be carried out in these areas, to follow the subjects related to hunting and wildlife in the forest, grazing and beekeeping.
3. To support ecotourism activities where appropriate.
4. To ensure the determination, protection and sustainable management of recreation areas, urban forests and botanical gardens.

Beside the DNWFPS, some other departments of the GDF has specific duties for NWFPs as determined by above mentioned Presidential Decree No 4. For example, the Department of Forest Villages Relations (DFVR) is responsible to support the production of wood and non-wood forest products in forest villages and contribute to the development of related industry.

Besides the GDF, some other general directorates of the Ministry of Agriculture and Forestry (MAF) have duties and authorities regarding non-wood forest products.

For example, according to the "Organic Agriculture Law" numbered 5262, the production of non-wood forest products is considered as an "organic farming activity". The implementation of the "Organic Agriculture Law" is generally followed by the General Directorate of Plant Production (GDPP).Beekeeping activities, including pine honey, is being carried out with the framework of

“Beekeeping Regulation” which published in the OG at the date of 30 November 2011 and numbered 28128. Article 11 of the Beekeeping Regulation explains in detail the beekeeping activities to be carried out in forests.

The "Beekeeping Regulation" derives its legal basis from the "Veterinary Services, Plant Health, Food and Feed Law No. 5996" published in the Official Gazette No. 27610 dated 13 June 2010. The General Directorate of Animal Husbandry (GDAH) and General Directorate of Food and Control (GDFC) also have relevant duties and authorities regarding "non-wood forest products" within the framework of this Law No. 5996.

Again, for beekeeping, there is a research institute namely “Apiculture Research Institute” under the General Directorate of Agricultural Research and Policies (GDARP)

In brief, while the GDF is the main institute for NWFPs, several other DGs namely General Directorate of Animal Husbandry, General Directorate of Agricultural Research and Policies, General Directorate of Food and Control, General Directorate of Plant Production also have duties and responsibilities.

Figure 4 Structure of the GDF

UNITS	
<p>CENTRAL ORGANIZATIONS</p> <p>1-Advisory and Inspection Units</p> <p>Department of Inspection</p> <p>Internal Auditing Unit</p> <p>Legal Consultancy</p> <p>Strategy Development Department</p> <p>2-Main Units</p> <p>Department of Combating Forest Pest</p> <p>Department of Forest Fire Combating</p> <p>Department of Forest Cadastre and Ownership</p> <p>Forest Management and Planning Department</p> <p>Forest Production and Marketing Department</p> <p>Department of Silviculture</p> <p>Department of Afforestation</p> <p>Department of Soil Conservation and Watershed Rehabilitation</p> <p>Department of Nursery and Seed</p> <p>Department of Non-Wood Forest Products and Services</p> <p>Department of Forest-Village Relations</p> <p>Department of Construction and Procurement</p> <p>Department of Permission and Easement</p> <p>3-Supporting Units</p> <p>Personel Department</p> <p>Administrative and Financial Affairs Department</p> <p>Foreign Relations, Training and Research Department</p> <p>Information System Department</p> <p>Private Secretariat</p> <p>Public Information Department</p> <p>INSTITUTES</p> <p>Western Mediterranean Forest Research Institute</p> <p>Western Black Sea Forest Research Institute</p> <p>Central Anatolia Forest Research Institute</p> <p>Eastern Mediterranean Forest Research Institute</p> <p>Eastern Black Sea Forest research Institute</p> <p>Eastern Anatolia Forest Research Institute</p> <p>Aegean Forestry Research Institute</p> <p>South-eastern Anatolia Forest Research Institute</p> <p>Poplar and Fast-Growing Forest Trees Research Institute</p> <p>Forest Tree Breeding and Seeds Research Institute</p> <p>Forest Soil and Ecology Research Institute</p> <p>Marmara Forest Research Institute</p>	<p>PROVINCIAL ORGANIZATIONS</p> <p>1-Regional Directorates of Forestry</p> <p>Adana Regional Directorate</p> <p>Amasya Regional Directorate</p> <p>Ankara Regional Directorate</p> <p>Antalya Regional Directorate</p> <p>Artvin Regional Directorate</p> <p>Balıkesir Regional Directorate</p> <p>Bolu Regional Directorate</p> <p>Bursa Regional Directorate</p> <p>Denizli Regional Directorate</p> <p>Elazığ Regional Directorate</p> <p>Erzurum Regional Directorate</p> <p>Eskişehir Regional Directorate</p> <p>Giresun Regional Directorate</p> <p>Isparta Regional Directorate</p> <p>İstanbul Regional Directorate</p> <p>İzmir Regional Directorate</p> <p>Kahramanmaraş Regional Directorate</p> <p>Kastamonu Regional Directorate</p> <p>Kayseri Regional Directorate</p> <p>Konya Regional Directorate</p> <p>Kütahya Regional Directorate</p> <p>Mersin Regional Directorate</p> <p>Muğla Regional Directorate</p> <p>Sakarya Regional Directorate</p> <p>Şanlıurfa Regional Directorate</p> <p>Trabzon Regional Directorate</p> <p>Zonguldak Regional Directorate</p> <p>2-Forest District Directorates</p> <p>3-Forest Nursery Directorates</p> <p>4-Chief Engineering</p> <p>5-Forest Sub-district Directorates</p> <p>6-Other sub-districts</p>

3. CHAPTER 3: FOREST MANAGEMENT FOR NWFPS

3.1. NWFPS and Forest Management Plans

All forests, whether state-owned or not, are managed according to the "Forest Management Plans". The "Forest Management Regulation" published in the Official Gazette dated 5 February 2008 and numbered 26778 is currently valid which has been prepared within the framework of Article 26 of the Forest Act No. 6831. As it was explained in related section, the GDF is responsible to manage the forests in line with "Forest Management Plans".

Articles 26, 27, 28 and 29 of the Regulation explain how to make the inventory of non-wood forest products. Article 76 of the Regulation has the title "Ensuring continuity in the production of non-wood forest products". According to this article, it is possible to separate and manage some forest areas entirely for "non-wood forest production".

3.2. NWFPS Utilization Plans

The basic forest management tools used at the field are Forest Management Plans prepared in line with the Forest Management Regulation and other related technical specifications. The responsible department or unit for the preparation and implementation of forest management plans is the Department of Forest Management and Planning.

In accordance with this "master-management plan", other Departments prepare additional secondary plans for themselves as shown Table 3.

Table 3. Forest Management Tools (Communiqués)

Department	Plans
Forest Management and Planning Department	Forest Management Plans
Department of Silviculture	Communiqué on Arrangement and Monitoring of Technical Principles of Silvicultural Practices and Detailed Silviculture Plans to be Applied in Forests (No: 298)
Forest Production and Marketing Department	Communiqué on Production Works of Wood-Based Forest Products (No:310)
DNWFPS	<ol style="list-style-type: none">1. Communiqué on Operation and Management of Honey Production Forests2. Communiqué on the Procedures and Principles of the Administration of Ecotourism Areas (No: 308)3. Communiqué on Inventory and Planning of NWFPS and Production and Sales Principles (No. 302)
Department of Construction and Procurement	Communiqué on Planning, Construction and Maintenance of Forest Roads

The main forest management tool for the NWFPS are "Utilization Plans" which are prepared under the responsibility of DNWFPS. The Utilization Plans are specific plans prepared for each NWFP for a certain period and area and consisted of methods and principles taking into account the type and quantity of the specific NWFP.

The preparation process of "Utilization Plans" starts with "inventory and planning". For this aim every regional forestry directorate has a team/committee working under the division director for NWFPs. "Communiqué on Inventory and Planning of NWFPs and Production and Sales Principles (No. 302)" explains and envisages the ToR and working modalities of these teams/committees.

The work schedule of the "Inventory and Planning Committees" is determined by the Regional Forestry Directorate in line with the annual work programs envisaged by the General Directorate (DNWFPS), by taking into consideration the NWFPs prioritized.

The management of "Inventory and Planning Committees" is carried out by the NWFPs Branch Manager/Division Director under the authority and responsibility of the relevant Regional Manager. Land/field and office/desk works of "Inventory and Planning Committees" are inspected by the Regional Directorate.

The relevant Forest Management Chiefs, Forest Management Directors and Regional Managers/Directors and other technical staff assigned in the plan implementation are jointly responsible for the implementation and follow-up of the benefit/utilization plans. The implementation of the utilization plans is monitored and data from the monitoring are transferred to the Electronic Tracking System-ETS by the relevant Forest Management Directors under the supervision of the Regional Directors.

The units responsible for the implementation of the utilization plans shall report the results of the implementation to the Regional Directorate with the application monitoring tables determined by the Regional Directorate in terms of form, content and duration. Implementation results of the utilization plans are inspected by the Regional Directorate.

The relevant Forest Management Chiefs, Forest Management Directors and Regional Managers/Directors are jointly responsible for the submission, maintenance and filing of the utilization plans. Inventory scorecards issued during the field studies are of official documents and the related Inventory and Planning Committee and Regional Directorate are responsible for the submission, storage and filing. Data sets obtained by the authorized units of the Department are sent to the Forestry Administration and Planning Department to be integrated into functional management plans.

The Inventory and Planning Committees consist of at least three technical staff. One of whom must be the relevant Forest Management Chiefs and the others are assigned by the Regional Manager. In cases where there is not a sufficient number of staff to be assigned to the delegations or the existing staff are not experts in related issues, service can be procured. Inventory and Planning Committees can be established more than once due to workload. In cases where the vehicles needed by the Inventory and Planning Committees in field studies are not provided by the Regional Directorates, the vehicle can be rented in accordance with the provisions of the relevant legislation.

As of today, there are 1 953 utilization plans arranged on the basis of operating schemes belonging to 250 different NWFPs. These utilization plans are taken as a basis in the giving license for collections/harvesting to the forest villagers or others.

It is not possible to sell or to give permission for collection any NWFPs that do not have a Utilization Plan. These plans are prepared in accordance with content dispositions shown in Annex-3, Annex-4 and Annex-5 of the Communiqué of NWFPs. A typical utilization plan has 8 parts as shown in Text Box 2.

Text Box 2. Template of NWFP Utilization Plan

<ol style="list-style-type: none">1. Introduction<ul style="list-style-type: none">• Status of the Plan Unit• Forest Management Plans Duration• Utilization Plan Times, Previous Applications and Status in the Plan Unit2. General Information<ul style="list-style-type: none">• Presence/Distribution and Biology of Planned Species in the Plan Unit• Habitat Features• Protection Targets• Onsite Development and Improvement• Collection/harvesting3. Inventory<ul style="list-style-type: none">• Area Inventory• Yield Inventory4. Regulation of Utilization5. Suggestions6. Conclusion7. Signatures and Approval page8. Annexes<ul style="list-style-type: none">• Sample Area Information Table• Inventory and Planning Table• GIS Based Maps• Images• Inventory Scorecards

Apart from these “Utilization Plans” which are prepared in line with “Forest Management Plans”, there are also “Action Plans” prepared species-based approach and expected to be implemented in whole country.

As of today, the following action plans are under implementation:

1. Honey Forest Action Plan 2018-2023
2. Bay Action Plan 2016-2020
3. Resin Action Plan 2017-2021

The following plans have been completed:

1. Truffle Action Plan 2014-2019
2. Blueberry Action Plan 2015-2019
3. Wild Fruit Species Action Plan
4. Gum Action Plan 2014-2019
5. Sahlep (Orchis) Action Plan 2014-2018
6. Chestnut Action Plan 2013-2017

4. CHAPTER 4: ACCESS TO FORESTS AND NWFP HARVESTING RIGHTS

4.1. Public access to forests

In Turkey all the forests belong to the State. Under normal circumstances people are allowed to visit forests but protected areas including recreational areas and environmentally sensitive areas have special arrangements. While some part of forests are completely banned for public use, the others partially are open for public services.

Within the framework of grazing plans approved by the forest administration, ovine and bovine animals are allowed to enter the forests for grazing. Parallel use for grazing and NWFP collection of an area is not regulated.

4.2. Collection/Harvesting rights

In general, it can be said that the collection of non-wood forest products is free for self-consumption, but for commercial uses specific rules are identified. There is no rule or restriction for self-consumption. People can go to the forest around and pick mushrooms without any paperwork for their daily and household usage. NWFPs collected from the forest are not subject to any fee or document unless they are sold to second parties or commercial enterprises.

The basic element for commercial uses is "NWFPs Utilization Plans" prepared under the general umbrella of "Forest Management Plans". The "Utilization Plan" is taken as the basis for granting collection permits for any NWFP. There are two ways to grant permission for product collection, provided that it is included in the "Utilization Plans."

1. The preferred option is within the framework of Article 40 of the Forest Law, forest villagers and the cooperatives established by them have the right to collect products primarily. It is the first way of granting permits. Whether a person is a forest villager or not is checked based on the residential records. In case forest villagers aspire to collect products, sales for the collection permits are made with discounted tariff prices. Cooperatives have equal rights as villagers. In accordance with the "Utilization Plan", a "collection contract" is signed between the GDF and the forest villager/cooperative who has received a collection permit. Collection permits granted to forest villagers are valid for one year for a specific product on a specific area based on the "Utilization Plans". These permits are given for individuals, not households.
2. The second option for granting permits is when the forest villagers do not want to collect products, public tenders are held by the GFD. The person or firm who won the tender is allowed to collect products and the contract is signed. If the companies win the tender, the permit periods may be valid for up to five years. Utilization Plans form the basis of all activities.

The public tender announcement is made to forest villagers by the forestry organization through mukhtars⁷. When necessary, these announcements are also announced in mosques or schools in the villages. It is also published on the website of the forest organization closest to the region and responsible for the works.

Tenders are announced at the web sites of the forest organizations, a local newspaper or at the Official Gazette if the amount is higher than certain amount. The General Directorate of Forestry determines and announces which tenders will be published in the Official Gazette, which will be published in daily newspapers, and which will be published on the web page of the institutions.

⁷ Mukhtars are the heads of a village or mahalle (neighbourhood) They are selected by election. The "Village Law" numbered 442 and the "Law on the Election of Local Administrations and Neighbourhood Mukhtars and Steering Committees" numbered 2972 determine the election procedures and duties of mukhtars.

Tenders are open to everyone. Persons and companies that comply with the "Law on Business And Work Licenses" published in the Official Gazette dated 17/6/1989 and numbered 20198 and other commercial requirements can participate in these tenders.

"Collection Permits" granted to forest villagers, other people and/or companies are taken as the basis for the transportation and sale of the products collected here. If the products are exported, these permit documents act as "Certificate of Origin".

There is a difference of approximately half price between the discounted collection tariff price for forest villagers and the price of bidding open to public including private companies, which is in other words, the estimated price. For example, the price of the tariff for the bay tree exile was 0.13 TL/kg and the estimated price was 0.24 TL/kg.

There is no specific rule on the limitation. There are no restrictions on the collection and sale of non-wood forest products, unless otherwise specified in the Utilization Plan.

Communiqué of NWFPs is the regulatory legislation for collection/harvestings rights and procedures to be followed. DNWFPS has a special webpage <https://oduhservis.ogm.gov.tr/> including videos to explain related information, and to train people concerned. (DNWFPS, 2020)

4.3. Forest owner’s use of NWFP

In Turkey, almost all of the forests belong to the State, however, there are very few private forests. Private forests are also under the authority and responsibility of the GDF.

Private forests, as well as state-owned forests, should have "Forest Management Plans and NWFPs Utilization Plans" and should be managed accordingly. Private forest owners have the right to collect and market their own products, provided they comply with this plan.

As of May 2020, no "NWFP Utilization Plan" has been prepared for private forests, as no such requests have been received from private forest owners, according to GDF officials.

4.4. NWFPs and Value Chains

Compared to wood-based forest products, inventory, sustainable management and marketing of NWFPs are quite complicated. Since they are in very small areas and sizes and in large numbers, it is difficult to manage them within the framework of a certain plan. In the process from collection to the end consumer, people with very different education and cultural backgrounds are involved.

A lot of work is being carried out by the GDF for a better understanding of the whole process from the collection of NWFPs to the end consumer. Among others, GDF, in cooperation with UNDP, conducted a research on the value chains. A typical value chain for a NWFP is shown in Figure 5 based on the joint research of UNDP and GDF in 2016. (UNDP, 2018).

Figure 5. A Typical Value Chain for a NWFP

Production	Collection/Harvesting	Processing	Sale
GDF-DNWFPS Regional Directorates of Forest- Division of NWFPs and Services Forest Management Directorates	<ul style="list-style-type: none"> • Forest villagers who have rights and permits • Workers working in the field, Chief of the Villages (elected mayor) 	<ul style="list-style-type: none"> • Forest Villagers • Cooperatives • Private Sector 	<ul style="list-style-type: none"> • Direct Buyers from Source • Intermediaries between buyers and forest villagers, collectors and producers

Forest Management Chiefs Consulting / planning firms on behalf of the GDF	<ul style="list-style-type: none"> • Intermediaries who mediate with forest management 		<ul style="list-style-type: none"> • Cooperatives • Direct Sellers at the Markets and Bazaars • Final Sellers • Exporters • Packaged Products Sellers • Processed Products Sellers- Cosmetics
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In Turkey, Exporter Unions play an important role in exporting NWFPs. NWFPs are mainly produced in forest areas remote to marketing channels. The marketing and export capacities of forest villagers and cooperatives established by them are not sufficiently developed and Export Unions are supporting forest villagers and their cooperatives.

On the other hand, the most important pillar of trade, which is of great importance in the development of countries, is exports. Meaning that the increase in exports increases the wealth created in the country and lead to an increase in production efficiency. Understanding this importance, the first Exporters' Union was established in 1937 with the signature of Mustafa Kemal Atatürk. The main aim of the Exporter Unions is to contribute to the increase of exports, to increase professional solidarity, to organize the professional activities and relations of exporters, to provide technical and policy guidance on trade related issues. Exporter Unions are operating in more than 31 provinces in Turkey and those working on NWFPs are listed in Table 4.

Table 4. Turkey's Exporter Unions of NWFPs

Name of Unions	Web Page
Mediterranean Exporters' Associations	https://www.akib.org.tr/tr/default.html
Western Mediterranean Exporters Association	https://www.baib.gov.tr/tr/
Denizli Exporters Association	http://denib.org.tr/tr/default.html
Eastern Anatolia Exporters Association	http://www.daib.org.tr/
Eastern Black Sea Exporters Association	http://www.dkib.org.tr/tr/default.html
Aegean Exporters' Associations	http://www.eib.org.tr/
Southeastern Anatolia Exporters' Associations	https://www.gaib.org.tr/
Istanbul Exporters' Associations	http://www.iib.org.tr/en/
Black Sea Exporters' Associations	http://www.kib.org.tr/tr/
Central Anatolian Exporters' Associations	http://www.oaib.org.tr/tr/default.html
Uludağ Exporters' Associations	http://www.uib.org.tr/tr/default.html

4.5. Facilitating business development

Private sector firms play an important role in introducing NWFPs to the economy. According to the data obtained from GDF, there are about 500 private companies in Turkey dealing with the collection, drying, processing (semi-product or final product), packaging, and selling of NWFPs both in Turkey and for export.

The main problems of the sector are:

- a) People, cooperatives and unions dealing with NWFPs are facing problems such as lack of financing, workforce, coordination and knowledge. In Turkey - like in other countries - Forest based activities including NWFPs are considered a temporary seasonal work and not provide a sufficient financial resource to forest villagers, therefore forest villagers prefer to migrate to urban areas in order to find regular and continuous income and reach better life conditions (The World Bank, 2017). This results in low numbers of experienced and knowledgeable people or workforce and low finance and coordination capacities.
- b) Most of the NWFPs are exported or traded and sold in Turkey without processing, as raw materials. Production and sale of high value-added products are not sufficient. This situation causes serious economic losses, which prevents the industry from becoming organized. In terms of product development, research and development activities are insufficient and studies cannot be put into practice.
- c) A significant part of our NWFPs potential cannot be realized as losses occur as a result of incorrect collection practices. Also, most NWFPs are sold as raw materials so there is no processing involved. Facilities processing NWFPs have difficulty in obtaining raw materials sustainably. Irregular and unplanned utilization of NWFPs cannot be adequately controlled.
- d) Statistical data regarding domestic consumption and trade cannot be collected sufficiently.
- e) The number of facilities that process NWFPs is not sufficient. There are not enough entrepreneurs in the NWFPs sector.

Currently several activities are ongoing by the GDF to support the NWFPs sector, such as:

- a) Institutional awareness and capacity improvements on NWFPs and services they provided are increasing. In order reach a standard product quality, forest villagers and interest groups are trained on the collection, drying, storage and preparation of medicinal and aromatic plants for the market.
- b) In order to increase the added value of NWFPs, it is aimed to support the production of NWFPs by GDF and the sector by relevant institutions such as GDF, TKDK, KOSGEB with financial instruments such as grant and loan and with technical guidance.
- c) The inventory studies of NWFPs are continued.
- d) Benefits and income opportunities of forest villagers from utilization of NWFPs are improved.
- e) International cooperation with several organizations including FAO and European Union is increasing.

5. CHAPTER 5: ACTION PLANS FOR SPECIFIC NWFPs

There are several action plans prepared and implemented by GDF on NWFPs as explained in detail below.

5.1. Resin Action Plan (2017-2021)

Apart from essential oils, which provide an array of flavors and fragrances, resins are perhaps the most widely used and traded category of non-wood forest products other than items consumed directly as foods, fodders and medicine (FAO, 1995).

Perceiving it as a chemical product makes the definition and understanding of the resin difficult. Simply put, the viscous liquid flowing from the outside of the trees is called resin. This liquid is a substance that varies in darkness according to the age of the tree and is quite sticky.

The raw resin market has been growing in recent years and only a few countries like China, Indonesia and Brazil are at advance level to meet world's raw resin needs. Due to the restrictions imposed on the use of synthetic resin in the world, the importance and amount of raw resin is increasing day by day, thus raw resin and resin derivatives, becoming important substance in the Turkey's industry. Although Turkey has a potential to be resin-producing country due to its red pine and maritime pine stands located in the Mediterranean climate, Turkey still heavily depends on outside resin resources. The resin action plan has been prepared and put in force by GDF to reduce the dependency of Turkey on the need for resin and its derivatives, to enhance potential production in efficient and sustainable manner.

Within the scope of the Resin Action Plan put into effect in 2017, Forest Regional Directorates and areas where resin will be produced have been determined. In this context, trainings were given to both GDF employees, forest villagers and the relevant private sector.

Under current conditions, the area of red pine and coastal pine that can be reserved for resin production is around 100 000 hectares in total. It is aimed to increase the annual resin production, which was around 420 tons by 2020, to 5 000 tons by 2023.

5.2. Laurel Action Plan (2016-2020)

The laurel (*Laurus nobilis* L) is a maquis element, spreads within the shrubland or in large areas alone and naturally grown in coastal lines (*Mediterranean Sea, Black Sea, Marmara Sea and Aegean Sea*), of Turkey. Almost all production is carried out by collecting directly from state-owned forests.

Bay leaves and its products are used in many fields such as food, medicine, cosmetics, chemistry, domestic and foreign trade increases every year. Turkey is one of the most advantageous country in the world in terms of meeting the growing demand and has high potential to supply bay leaves.

Recently the GDF has been giving very much importance to bay leaf. Through rehabilitation of bay leaves production areas, the production has increased from 3500 tons in 2003 to 32 600 tons in 2019. The contribution of bay leaf to Turkey's national economy was calculated 264 084 507 USD in 2019. Turkey exported approximately 13 600 tons and the export volume around 38 million USD in 2019. According to the General Directorate of Forestry, Turkey has a total area of 180 400 hectares bay in whole country as of 2019.

To increase the economic contribution of the bay and further strengthen its sustainable management the GDF prepared the Bay Leaves Action Plan⁸ covering the years 2016-2020. The purpose of the plan is to allow the sustainable use of the bay leaves and seeds from natural spread areas, to reduce the value lost in production, to reduce the production costs, to spread the use of bay leaves products in the country, and to increase the income of forest villagers.

In this context, the rehabilitation, protection and maintenance of the areas that can produce high quality bay leaves on a national scale, the development of seed bay areas where the increasing need for fixed oil can be met, the development of transportation and machine working opportunities in the

⁸ https://www.ogm.gov.tr/ekutuphane/Yayinlar/Defne_Eylem_Plani.pdf

bay areas, training of resource managers, collectors and stakeholders, and promotion of internal consumption opportunities are planned.

With this “Bay Leaves Action Plan” 1250 ha area rehabilitation, 160 km road network, inventory and protection of 100 ha seed collection areas and training of 5000 people are targeted.

5.3. Blueberry Action Plan (2015-2019)

There are many studies aimed at improving production of blueberry across the world as it has commercial value and variety of uses in wide range of areas. In Turkey, there are four different types of natural blueberries (*Vaccinium vitis idea* L., *Vaccinium myrtillus* L., *Vaccinium arctostaphylos* L., *Vaccinium uliginosum* L.) and their cultivation studies are ongoing. As a result, some successful results have been achieved in the Eastern Black Sea Region. The Blueberry Application and Research Center⁹ was established at Rize Recep Tayyip Erdogan University and the Cooperation Protocol for the Development of Blueberries was established between the GDF and the center in 2012. Consequently, an action plan on this subject put in force to use the existing resources effectively, provide sapling materials along with theoretical and practical trainings on the value chain including storage and marketing.

5.4. Gum Action Plan (2014-2019)

Gum tree (*Pistacia lentiscus* L.), belonging to the family of *Anacardiaceae*, is an evergreen small shrub that grows wild in the Mediterranean Region. It grows mainly in the Western Aegean and on the island of Chios. The species has an important role in preventing soil erosion. It could regenerate in a short time period even in bad conditions like after forest fire.

Gum has an indispensable place in Turkish cuisine; due its use in food, cosmetics, medicinal and aromatic products, its commercial value increases every year. *Pistacia lentiscus* var. *chia*, is found in Çeşme Peninsula and Chios. Aegean and Mediterranean coastal zones of Turkey have favorable conditions to the *Pistacia lentiscus* var. *chia*, especially in the Çeşme Peninsula. The Gum Action Plan implemented in those area with aim of establishing gum forests in suitable conditions, revitalize gum market and contributing local and national economy.

5.5. Truffe Action Plan (2014-2018)

Truffles naturally grow in Mediterranean climate, particularly in Spain, France, Italy and Turkey. Truffles also known as “black diamond”, and it is among Turkey’s important sources of wealth. They consumed as food and have high commercial value.

According to the economists' estimates, truffle will create a trade volume of 6 billion US dollars annually in the next 20 years. Currently, France provides 45% of truffles production, followed by Spain with 35% and Italy and other countries with 20%. (AF, 2019)

Due to its natural distribution in a very limited geography and its small amount, its price varies between 200 and 3,500 Euros/kg, depending on its species and quality.

Based on technical studies realized in line with the protocol between the GDF and Muğla Sıtkı Koçman University, one of the State University dealing with mushrooms and truffles, a Truffle Forest Action Plan (2014-2019) prepared and put into action. The aims of the action plan are to improve income level of the forest villagers, support scientific studies on the determination of the truffle species required for establishment of natural truffle forests and lastly practical trainings in the field.

⁹ <http://maviyemis.idari.erdogan.edu.tr/tr>

Truffle, which was not even on the agenda of Turkey 5-6 years ago, has drawn the attention of society, from hunters to investors, from consumers to tourism today. According to data provided by GDF total volume of truffle production is around 40 tons. Increased momentum in truffle production continues. Within the scope of the Action Plan, truffle forests have been established on 384 hectares as of the end of 2019.

5.6. Honey Production Forests Action Plan (2013-2017)

Beekeeping is one of the most important agricultural business in Turkey. There are approximately 80 000 agriculture holdings in apiculture/beekeeping. According to FAO statistics, Turkey is the second country in the world produces the most honey in general. The average honey production in Turkey according to figures from the past five years is 109 115 tons annually.

Having the climatic benefit of enjoying all four seasons, Turkey possesses many bee races and ecotypes, which easily accommodate themselves to the diverse ecologic conditions there, and highly rich floral resources which provide nectar and pollen throughout the year.

The country's temperate regions, primarily the Mediterranean and the Aegean, are preferred by beekeepers for such reasons as wintering their colonies, obtaining a rich nectar and pollen source, and benefiting from the relatively early start of spring. In addition, there is a considerable source of honeydew on the pine trees in the southwest of the country. This source makes up approximately a third of country's honey production.

Due to its importance and as the continuation of ongoing activities, the GDF has prepared the "First Honey Forest Action Plan 2013-2018".

This plan indicates that "Beekeeping and forestry are two strategically important issues for each other. Bee and forest cannot be considered separately. Turkey has a very different climate and soil diversity. It is also at the intersection of three different plant areas such as the Mediterranean, Europe-Siberia, Iran-Turan. For this reason, Turkey has a unique variety of plants in the world. 75% of the world's plant species and varieties of honey 's is located in Turkey. Honey bees, which perform a very important function in the protection and development of biological diversity, which is directly under the responsibility of the General Directorate of Forestry, perform 85% of the pollination in nature. One-third of the existing plants in the world are self-sterile varieties and are pollinated and fertilized by insects. Honey bees are insects that perform pollination service in nature in a regular and disciplined manner. In order for a country to maintain its plant richness and to increase the quality and yield in agricultural production, it must have sufficient honey bees. Beekeeping is therefore of great importance and value. It is obvious that beekeeping should be supported in terms of preserving biological diversity, transferring it to future generations, sustainable food security and preventing erosion. Approximately 25% of the honey production in Turkey are obtained directly from the forest form of honey. Considering forest trees such as chestnut, linden, acacia, rhododendron, wild pear and herbaceous plants and flowers in forest areas, it is seen that 85% of the total honey production is obtained from forests and forest areas."

Following the completion of the First Honey Forest Action Plan, the "Second Honey Forest Action Plan" covering the years 2018-2023 has been prepared and put into effect. Under the umbrella of this second action plan, 720 honey forest by 2023, which is a centennial anniversary of the Turkish Republic, will be established.

By end of 2019, there are 484 Honey Forests equals to 60 646 hectares in total were established in Turkey for beekeeping across the 28 Regional Forestry Directorates.

5.8 Chestnut Action Plan (2013-2017)

According to the GDF data, there are 262 045 hectares of natural chestnut forests in Turkey. 28 804 hectares of these forests are pure chestnut forests and the remaining 233 241 hectares are mixed chestnut forests.

Chestnut forests are used both for wood production and for the production of "non-wood forest products" due to their fruits and flowers. According to the General Directorate of Forestry 2019 Non-Wood Forest Products Inventory, 74 897 hectares of land is reserved for "chestnut fruit production".

According to the GDF data of 2019, chestnut production in Turkey reaches over 70 000 tons annually both from forests and agricultural lands. This increase trend of the chestnut, whose price has increased continuously in the last 5 years in Turkey due to the fact that it has taken place more widely in consumption habits and the increase in demand accordingly. Investment potential in the food industry seems to be high to increase the added value of chestnuts, whose processed product range is still few, in the coming years.

Chestnut Action Plan covering the years 2013-2017, aims to rehabilitate the damaged chestnut fields, establish new chestnut forests in appropriate areas, and carry out pest and disease control activities in the existing chestnut forests. As a result of the activities of the action plan, forests will be more resistant to diseases wood and fruit production will be increased, the income and welfare levels of our citizens living in rural areas in the short and medium term will increase, and the country's economy will be contributed.

More specifically, within the scope of "Chestnut Action Plan", rejuvenation in 1120 ha area, stand care in 71 061 ha area, afforestation in 1805 ha area, rehabilitation in 5561 ha area, and fight against diseases and pests in 3950 ha area will be carried out. 1 619 900 chestnut saplings will be planted in afforestation, rehabilitation and rejuvenation activities, and 173 660 chestnuts will be grafted within the scope of these studies. With these studies, it is aimed that 90 000 people from 701 villages will earn 123 000 000 TL as a result of harvesting approximately 40000 tons of chestnut fruit. Forest public relations will be positively affected by the implementation of the action plan, with the aim of increasing the economic welfare levels and protecting their legal rights, in accordance with Articles 169 and 170 of our Constitution, as well as contributing to the country's economy.

6. CHAPTER 6. CONCLUSIONS

The forest law was framed over half a century ago and subjected to many amendments still suffers from a number of identified deficiencies, such as insufficient importance given to NWFPs and ignorance of private sector. The role of the private sector in the NWFPs management is non-negligible so that its involvement has to be enhanced by required amendments in the forest law.

The overlap and conflict could be happened with other environmental legislation where the forest law incorporate on Sustainable Forest Management, user rights for NWFPs including medical and aromatic plants and methods of sale. Necessary corporation by GDF should be realized with other stakeholders that work on nature and environmental protection.

To ensure sustainable development of the NWFPs and to avoid over-exploitation, incorrect timing, poor storage etc., the forest code should be translated into action through technical guides on inventory, harvesting, processing, marketing of NWFPs. This is strategically important to the long term production as well as increase the well-being of forest villages as an income alternative for their aging population. For example, while the communiqué numbered 302 may include more detailed and explanatory principles in areas with high scientific knowledge, such as resin, it is seen that many other important products are based on the conventional production style without knowing how they

consider alternative production techniques. The information, which is defined as the production technique for many products, consists of only harvesting. This proves a needs more elaborated guidance on other NWFPs.

Cultivation might be an option for some products and could increase the total production and relieve the pressure on the wild material. Irrespective of the source, sustainable management of the resource along agreed guidelines and provision of additional investment funding will be necessary.

Managing NWFPs is not limited to keeping statistics in this area. It is necessary to keep statistics that serve administrative goals. In line with the performance indicators included in the strategic plan's statistics should be kept on regular base and align with international data collection standards such as Sustainable Development Goals.

When examining the existing NWFPs policy in Turkey, it is focused on number of species, export revenue and size of area rather than biological features and relations with social structure surrounding them.

It can be said that the National Forestry Program tries to consider the ecological, economic, and social dimensions required to ensure the continuity of non-wood resources. Nevertheless, it should be discussed to what extent the GDF and respective policies meet the National Forestry Program and OGM Strategic Plan objectives.

It is understood that the communiqués have been prepared with a production approach mainly focused on harvesting and less paying attention on the period from planting to harvesting. A broader understanding of the whole should be applied in NWFPs.

Cooperation between respective units of the GDF, namely the Forestry Administration and Planning Department, the Department of Business and Marketing and the Non-Wood Products and Services Department is inevitable. The way to establish this cooperation is to ensure the harmonization of the corporate decisions that are the basis of the Forest Management Regulation and Non-Wood Products and Services Management Plans. For this reason, a coordination among units should be strengthened, and a harmony is required between all institutions conducting non-wood product research be enhanced.

Monitoring and evaluation should be formulated in line with institutional strategy as they are not presented for almost all products are not included in the communiqué.

ANNEXES

Annex 1. Development of Scope and Definition of Non-Wood Forest Products

For easy understanding of the NWFP definitions used by Turkey, it would be useful to examine briefly the existing legislation, including the Constitution and administrative structure. Articles 169 and 170 of Turkey's Constitution are related to forests and forest villagers. However, there is no definition of forest products or NWFPs in these articles. On the other hand, Article 45 of the Constitution contains issues related to "plant and animal products".

Currently, the basic legislation on forestry is the **Forest Law No. 6831**. Article 1 of this Law describes the forests as "naturally grown or artificially grown tree and shrub communities are considered forests with the areas what the trees occupy".

In many articles of the law, there are expressions of "forest product" or "crop". However, there is no definition of what forest products or forest crops are. In the 37th article of the Forest Law there are some references on forest products such as timber, wire pole, mine pole, industrial wood, paper-wood, fiber- chipwood, pole, stick, firewood, resin, frankincense oil, kindling and boxwood. However, no definition of NWFPs can be found here either. The first definitions about NWFPs are included in the "Regulations" and the following "Communiqués".

The "Forest Management Regulation" published in the Official Gazette dated **5 February 2008** divided NWFPs into three categories as i) plant, ii) animal, iii) mineral origin.

- **NWFPs of plant origin:** root, leaf, shoot, shell, flower, resin, gull, frankincense oil, various plants, fruits and juniper seeds, bonito, acorn, pine nuts, chestnuts;
- **NWFPs of animal origin:** birds, fish, mammals game meat and other products with animal origin;
- **Mineral origin NWFPs:** streams, lakes, embankments, springs, mineral waters and various mines such as sand, gravel, stone and so on.

According to the "**Regulation on the Procedures and Principles of the Sale of Forest Products**" published in the Official Gazette dated **20.03.2015** "forest products" and "non-wood forest products" are defined as follows:

- Trees, shrubs and wood products obtained from State-Owned forests, and all NWFPs obtained from these forests and products produced in nurseries are defined as "**Forest Products**".
- **Non-wood forest product:** All vegetable, animal and other biological products, except wood products obtained from forests.

While this Regulation contains a definition for non-wood forest products, there is no list of what are non-wood forest products.

The "Afforestation Regulation" published in the Official Gazette dated **23 October 2019** contains various definitions. This regulation divides forest products as "primary forest products" and "non-wood forest products".

- **Primary forest products:** Wood products such as logs, poles, industrial woods, paperwood, fiber-chip wood, sticks, firewood obtained from all kinds of trees, shrubs and bushes,
- **Non-wood forest products refer to:**
 - Balsam oils obtained from all kinds of forest trees, shrubs, bushes and herbaceous plants,
 - Shell, fruit, shoots, leaves, flowers, seeds, roots, onions, tubers and rhizomes, mushrooms and similar products of all kinds of forest trees, shrubs, bushes and herbaceous plants.

“Communiqué No. 302 on Inventory and Planning of NWFPs and Production and Sales Principles”, which was put into practice in 2016, is the most comprehensive and directing legislation on NWFPs. This “Communiqué No. 302” on NWFPs is a very comprehensive and useful example and could be used as a guideline for other countries.

Having 116 pages including its annexes, this Communiqué No. 302” on NWFPs has been divided into 9 parts as shown below.

- Part 1: Purpose, Scope, Basis and Definitions
- Part 2: Inventory and Planning of Non-Wood Forest Products
- Part 3: Production Procedures and Principles of Non-Wood Forest Products
- Part 4: Sales Procedures and Principles of Non-Wood Forest Products
- Part 5: Programming of Production and Sales of Non-Wood Forest Products
- Part 6: Production and Sales Techniques of Some Non-Wood Forest Products
- Part 7: Principles of Collection of Production Residues and Plant Materials Harmful to the Forest
- Part 8: Repealed Provisions, Enforcement of this Communiqué -Circular
- Part 9: Attachments-Annexes of the Communiqué

This communiqué contains three definitions about NWFPs as indicated in Part 1: Purpose, Scope, Basis and Definitions

Non-Wood Forest Product (NWFP): It refers to biological and mineral origin products other than wood obtained from forests and trees, and other products exposed during the production of wood such as bark, chip, shrub, root, stump, and cone.

Other NWFP: It refers to all kinds of plant residues, bark, cones, roots, and organic and mineral origin such as humus, which are formed during wood production or for different reasons unlike NWFPs obtained by collecting all or some parts of living organisms.

NWFPs With Priority: It refers to non-wood forest products, which are demanded in domestic consumption, import and export, and therefore have high economic value and commercial potential, are widely distributed, have wide transport opportunities and are included in the annual work program of the Forest Regional Directorates.

Based on the above-mentioned explanations the following definition is used to express Turkey’s official terminology for NWFPs in this report.

Non-Wood Forest Product (NWFP): It refers to biological and mineral origin products other than wood obtained from forests and trees, and other products exposed during the production of wood such as bark, chip, shrub, root, stump, and cone

Annex 2. Related Articles of the Turkish Constitution on Forests and Forest Villagers

ARTICLE 45: The State facilitates farmers and livestock breeders in acquiring machinery, equipment and other inputs in order to prevent improper use and destruction of agricultural land, meadows and pastures and to increase crop and livestock production in accordance with the principles of agricultural planning. The State shall take necessary measures for the valuation of crop and livestock products, and to enable producers to be paid the real value of their products.

ARTICLE 169: The State shall enact the necessary legislation and take the measures required for the protection and extension of forests. Burnt forest areas shall be reforested; other agricultural and stockbreeding activities shall not be allowed in such areas. All forests shall be under the care and supervision of the State.

The ownership of state forests shall not be transferred. State forests shall be managed and exploited by the State in accordance with the law. Ownership of these forests shall not be acquired by statute of limitations, nor shall servitude other than that in the public interest be imposed in respect of such forests. Acts and actions that might damage forests shall not be permitted. No political propaganda that might lead to the destruction of forests shall be made; no amnesties or pardons specifically for offences against forests shall be granted. Offences committed with the intention of burning or destroying forests or reducing forest areas shall not be included within the scope of amnesties or pardons.

The reducing of forest areas shall be prohibited, except in respect of areas whose preservation as forests is considered scientifically and technically useless but conversion into agricultural land has been found to be definitely advantageous, and in respect of agricultural lands such as fields, vineyards, orchards, olive groves or similar areas which technically and scientifically ceased to be forest before December 31, 1981 and in respect of built-up areas in the vicinity of cities, towns or villages whose use for stockbreeding purposes has been found advantageous.

ARTICLE 170: To enhance the protection of forest Villagers, measures shall be introduced by law to secure cooperation between the State and the inhabitants of villages located in or near forests in the supervision and exploitation of forests for the purpose of ensuring conservation of forests and their integrity, and improving the living conditions of these inhabitants; the law shall also regulate the exploitation of areas which technically and scientifically ceased to be forests before December 31, 1981; the identification of areas whose preservation as forest is considered scientifically and technically useless, their exclusion from forest boundaries and their improvement by the State for the purpose of settling all or some of the inhabitants of forest villages in them, and their allocation to these villages. The State shall take measures to facilitate the acquisition of equipment and other inputs by these inhabitants. The land owned by villagers resettled outside a forest shall immediately be reforested as a State forest.

Annex 3. Related Items of National Development Plan of Turkey for NWFPs

According to Article 166 of the Constitution of the Republic of Turkey, the Government/State must prepare "Development Plan" in order to ensure economic, social and cultural development. Development initiatives are carried out according to this plan. These Development Plans provide guidance for all government agencies. Annual budgets are prepared on the basis of these plans. The existing and ruling Development Plan which was prepared by the Presidency of Turkey to cover the years 2019-2023 was approved by the Grand National Assembly of Turkey (Turkey's Parliament) and published at the Official Gazette on 23.07.2019 and was numbered 30840. <https://www.resmigazete.gov.tr/eskiler/2019/07/20190723M1-1.htm>

The National Development Plan of Turkey covers and leads to all sectors and all activities planned. Some parts like food, crop production, livestock, forestry, rural development, supporting woman and youths have been translated to English and are shown below.

80. Increasing food demand, climate change and urbanization put pressure on soil and water resources, agricultural products and producers. Developing plant and animal species suitable for the changing climate, protection of environment and biological diversity gain importance. The need for qualified labor and technology is increasing in order to meet the food demand with less resources.

82. Demand for healthy, organic and good agricultural products is increasing, and the tendency to deliver pure / organic and local products directly to consumers through different marketing channels is strengthened.

103. The importance of sustainable use of land and water resources, food safety and on-site conservation of agricultural populations is becoming increasingly important. As a reflection of this, rural development supports, the use of more technology and information in agriculture, the use of inputs, the diversification of marketing channels and demand-dependent production efforts are also increasing.

According to the Eleventh Development Plan, agriculture, defense industry and tourism have been declared as "**priority development areas**". Some of the items that can shed light on the "Non-Wood Forest Products" are as follows.

404.2. Agricultural subsidies will be increased and a dynamic structure that focuses on water constraint, quality in production, farmer cost and income, supply and demand balance will be provided.

405.1. Detailed soil surveys showing soil capabilities throughout the country will be made, mapped and classified.

405.2. Preparation of agricultural land use plans based on soil information system will be completed.

405.3. Regulations to reduce the use of agricultural land for non-agricultural purposes will be completed and inspections will be increased.

407. Crop production will be increased.

407.2. Best agricultural practices, organic farming, contractual production, clustering, research, marketing and branding activities will be supported in order to increase product reliability, diversity and production, **especially in high value added medicinal and aromatic plants.**

407.5. Arrangements will be made to expand the industrial use of fiber plants, especially hemp (*Cannabis sativa*).

408. Livestock will be developed.

408.4. Pasture, plateau and overwintering areas detection, limitation and registration process will be accelerated. In order to increase the quality roughage production, pasture improvement will be provided and forage crop production will be supported.

408.5. Modernization and expansion of shelters and the purchase of animals, tools and equipment will be supported in order to increase the capacity of small family enterprises to 10 animals in cattle and 300 animals in sheep.

408.7. Breeding needs will be met and product diversity will be increased in beekeeping.

410. Inspections will be enabled to ensure food safety and plant and animal diseases and pest control services will be developed.

411. Efficient stock management to ensure food security, reducing losses in the supply chain, preventing waste, improving the rules and capacities for regulating markets will be ensured.

411.3. Consumer awareness will be increased to prevent food loss and waste.

411.4. Arrangements shall be made for the efficient and safe conduct of e-commerce in agricultural products.

412. Local livestock breeds and biodiversity will be protected and made sustainable in agricultural production.

412.1. Biodiversity inventory will be completed. Significant species and specific areas will be monitored and a mechanism for sharing the benefits from genetic sources and related traditional information will be established. Traditional information based on biodiversity will be recorded and made available for R & D purposes.

412.2. Accredited nature farms will be established for the development of domestic breeds of animals and seeds.

412.3. In nature farms, local seeds and local animal breeds of fruits, cereals, medicinal and aromatic plants, especially winter vegetables, will be multiplied and transformed into sustainable value added products.

413. In the marketing of agricultural products, it is aimed to reduce the number of intermediaries in the distribution chain, to reach the consumer at reasonable prices and to establish a direct connection between the producer and the consumer. For this purpose, it will be ensured that cooperatives and producer unions are actively involved in the system.

413.1. Access to finance will be facilitated and professional management, supervision and organization infrastructures will be developed in order to increase producer organization and increase the efficiency of its operations.

413.2. Arrangements shall be made in order to facilitate the commercial activities of producer associations.

413.3. Arrangements will be made to ensure that agricultural products are introduced to the market faster and at an affordable price with a strong distribution model with an audit and management infrastructure.

414. Mechanisms will be established to ensure that agricultural products produced at local and regional level achieve the added value they deserve.

414.1. Local products, geo-marked agricultural products and medicinal and aromatic products will be subject to trade by increasing the product value through improvements in promotion, marketing and branding.

415. Contribution of forests to the economy will be increased by complying with the criteria of sustainable forest management.

415.1. National Forest Inventory study will be completed.

415.2. Capacity to combat diseases, pests and fires in forestry will be strengthened.

415.3. Forest villagers will continue to be supported within certain programs, and professionalism will be increased through training activities in order to increase quality production and labor productivity in forestry.

415.4. Industrial plantations with fast growing species will be established in order to meet the raw material needs of wood.

415.5. The use of wood will be extended and standards will be set.

416.4. Innovative and environmentally friendly production techniques, especially smart agricultural technologies, will be developed and supported.

417. Activities to protect the income of producers in agriculture will be supported.

417.1. In agricultural insurance, the scope will be expanded on product and risk basis and works towards transitioning to income insurance will be continued.

417.2. Efforts will be made to facilitate the inclusion of the young population employed in agriculture into the social security system.

418. The effectiveness of agricultural training and extension activities will be increased and expanded.

418.1. Training will be given on reducing production costs, using technology and producing high quality and healthy products, especially for women and young farmers. Extension and certificate programs and courses to improve agricultural skills will be organized.

418.2. The participation of academicians and research staff in training and extension programs will be increased and the relationship between R & D and extension will be strengthened.

418.3. Training and extension service capacities of producer organizations will be improved.

706. The necessary investments will be made for the social and physical infrastructure, resettlement and resettlement works of rural settlements.

706.1. Financial support will be provided for the construction of high quality and accessible road network, drinking water, wastewater facility and small irrigation facility of villages and towns within the scope of the Rural Infrastructure Project of Metropolitan Cities (KIRDES) in order to meet the local common infrastructure and superstructure needs of the villages.

706.3. In rural settlements, maintenance and repair of roads deteriorated due to climatic and topographic conditions and construction of new roads will be ensured.

706.4. Appropriate structures will be constructed adjacent to the village or in the areas to be determined within the scope of the resettlement activities required depending on various risk factors, with priority being expropriated in rural areas.

707. Rural development subsidies will be programmed with a focus on farmers and the environment. In the implementation of the supports, arrangements will be made to eliminate the existing multi-headings and complementarity and effectiveness will be provided in practice.

708. In order to raise the living standards in rural areas, institutional and local capacity for rural development will be improved. Positive discrimination **will be provided to women, young farmers and similar groups**. It will be ensured that producer organizations are the leading institutions in the fields of social solidarity, cooperation, education and financing.

708.1. Within the scope of rural development support, family enterprises and small and medium-sized producers will be encouraged to organize in order to strengthen the production and financial structure and to benefit from economies of scale. The production and logistics infrastructure and branding and marketing activities of these enterprises and manufacturers will be improved.

708.2. Environmental support and incentives will be increased in order to improve the quality of life in rural areas and to make the rural areas protected, lived and produced.

709. Within the scope of improving the human capital of rural society and reducing poverty, efforts to combat poverty in villages will be continued with a focus on production and employment.

709.1. Activities on farmer training and agricultural consultancy for family businesses will be strengthened in order to develop the human capital of rural society. The adult population, especially women and young entrepreneurs, will have access to non-formal education courses. Vocational training programs will be programmed on the basis of high value-added local products.

709.2. Rural women and young farmers will be supported to benefit from agricultural training and extension activities, rural support projects and occupational health and safety trainings.

709.3. Priority will be given to households with disabilities, poor and elderly individuals and households engaged in seasonal mobile agricultural labor in the activities aimed at combating poverty in villages.

710. For the sustainability of rural production and lifestyles, it will be ensured that the rural heritage is preserved and natural and cultural assets are preserved.

710.1. Production and lifestyles in villages and natural and cultural assets will be protected. For this purpose, traditional crafts specific to villages, agro-tourism, geographically marked products, ornamental plants, viticulture, apiculture, fishing, poultry farming, alternative farming products cultivation, the traditional production and storage of agricultural and food products, such as initiatives and collaborations to carry the next generation of fields will continue to be supported.

711.1. The definition of rural area will be revised in order to produce rural statistics on provincial and district basis. It will be ensured that basic national data is published on rural-urban and provincial / district level and rural indicators information system will be established. In this context, Turkey Statistical Institute Population Density data and EU National Land Cover Classification of spatial data and data from the Ministry of Interior Address Registration System will be used.

711.2. Statistical studies will be conducted to measure the socio-economic level of rural areas such as rural poverty, production and employment.

711.3. The village inventory will be updated to cover all provinces and a village inventory information system will be established.

716. Identification, registration, protection, sustainable use, development, monitoring and prevention of smuggling of biological diversity and genetic resources shall be ensured. The use of benefits from genetic sources and related traditional information will be expanded.

716.1. The national biodiversity inventory will be regularly updated through research and monitoring studies, and traditional information based on biodiversity will be recorded and made available for R & D purposes.

716.2. Legislation on conservation, sustainable use, development and prevention of smuggling of biological diversity and genetic resources will be developed.

716.3. A mechanism will be established for access to genetic resources and for equal and fair sharing of the benefits obtained from these sources and traditional information.

717. The amount of land and sea protected areas for protection, repair and sustainable use of ecosystems and ecosystem services will be increased. Effective management of nature conservation areas will be realized.

717.1. In order to ensure the effective management of these areas by increasing the amount of protected areas in land and sea, practices such as green corridor creation, planning and infrastructure works will be realized.

REFERENCES

- AF,209. Minister of Agriculture and Forestry, Press Briefing, Turkey aims to reach \$350 million in truffle exports, Available at: <https://www.dailysabah.com/business/2019/06/07/turkey-aims-to-reach-350-million-in-truffle->.
- ANONYMOUS, 2018. Presidential Decree on Institutions Affiliated to Ministries. Presidential legislation Information System, (Available at <https://www.mevzuat.gov.tr/MevzuatMetin/19.5.4.pdf>).
- Anonymous, 2018b. Presidential Decree on Institutions Affiliated to Ministries. (Available at <https://www.mevzuat.gov.tr/MevzuatMetin/19.5.4.pdf>).
- ANONYMOUS, 2020. Constitution of the Republic of Turkey. (Available at <http://www.judiciaryofturkey.gov.tr/Current-version-of--Constitution-of-the-Republic-of-Turkey--including-latest--amendments>
- Anonymous, 2020a. Constitution of the Republic of Turkey. (Available at <http://www.judiciaryofturkey.gov.tr/Current-version-of--Constitution-of-the-Republic-of-Turkey--including-latest--amendments>
- BELEN, İ, 2014. How Should Forests-Forest Villagers and Sectors be Included in the Constitution? (Available at <http://www.gonder.org.tr/?p=1218>)
- BELEN, İ., 2001, Master Thesis, Utilization from Chestnut as Non-Wood Forest Product in the World and Turkey. Black Sea Technical Univ., Institute of Science, Trabzon, (Available at: http://www.fao.org/3/y3660e/y3660e05.htm#P1398_260616)
- BELEN, İ, 2015, A Unique Non-Wood Forest Product: Pine Honey. (Available at <http://www.carfu.org/?p=524>)
- Devlet Toksoy, Suleyman Alkan and Sezgin Hacisalihoglu, 2010. Usage of non-timber forest products by women in forest villages of Trabzon, Turkey, Journal of Environmental Biology, 31(6): 1013-1016. (Available at https://www.researchgate.net/publication/51064054_Usage_of_non-timber_forest_products_by_women_in_forest_villages_of_Trabzon_Turkey)
- DNWFPS, 2019. Realization Report for 2019.
- DNWFPS, 2019. Realization Report for 2019. General Directorate of Forestry, Ankara.
- DNWFPS, 2020. Non-Wood Product Query, General Directorate of Forestry, Ankara. (Available at <https://oduhservis.ogm.gov.tr/>)
- DNWFPS, 2020. Tariff Prices of Non-Wood Forest Products Set for 2020, Communiqué No: 294/8, General Directorate of Forestry, Ankara.
- DNWFPS, 2020. Tariff Prices of Non-Wood Forest Products Set for 2020, Communiqué No: 294/8
- DNWFPS, 2020. Web Page on NWFPS. (Available at <https://oduhservis.ogm.gov.tr/>)
- FAO, 1999, Towards a harmonized definition of non-wood forest products. (Available at <http://www.fao.org/3/x2450e/x2450e0d.htm#fao%20forestry.>)
- FAO, 2018, The State of the World's Forests 2018 - Forest Pathways to Sustainable Development. (Available at <http://www.fao.org/3/I9535EN/i9535en.pdf>)

- FAO, 2020a. Global Forest Resources Assessment 2020: Main report. Rome. (Available at <http://www.fao.org/documents/card/en/c/ca9825en>)
- FAO, 2020b. The buzz around Turkish pine honey. (Available at <http://www.fao.org/europe/news/detail-news/es/c/1276387/>)
- FAO. 2020. Global Forest Resources Assessment 2020: Main report. FAO, Rome. (Available at <http://www.fao.org/documents/card/en/c/ca9825en>)
- GDF, 2016. Communiqué on Inventory and Planning of NWFPs and Production and Sales Principles. General Directorate of Forestry, Ankara. (Available at: <https://www.ogm.gov.tr/ekutuphane/Tebbligler/302%20say%C4%B1%C4%B1%20odun%20d%C4%B1%C5%9F%C4%B1%20orman%20%C3%BCr%C3%BCnlerin%20envanter%20ve%20planlanmas%C4%B1%20ile%20%C3%BCretim%20ve%20sat%C4%B1%C5%9F%20esaslar%C4%B1%20Tebli%C4%9Fi.pdf>)
- GDF, 2018a. Forestry Statistics. General Directorate of Forestry, Ankara, (Available at <https://ogm.gov.tr/lang/en/Pages/Forests/StatisticalInfo.aspx>)
- GDF, 2018b. Strategic Plan (2019-2023), General Directorate of Forestry, Ankara, (Available at [https://www.ogm.gov.tr/ekutuphane/StratejikPlan/Orman%20Genel%20M%C3%BCd%C3%BCr%C3%BCl%C4%9F%C3%BC%20Stratejik%20Plan%20\(2019-2023\).pdf](https://www.ogm.gov.tr/ekutuphane/StratejikPlan/Orman%20Genel%20M%C3%BCd%C3%BCr%C3%BCl%C4%9F%C3%BC%20Stratejik%20Plan%20(2019-2023).pdf))
- GDF, 2020, Forestry Statistics. General Directorate of Forestry, Ankara, (Available at <https://www.ogm.gov.tr/SitePages/OGM/OGMDuyurular.aspx?l=bab5d875-bc9e-415b-99c6-f5088acdaf36&i=1082>)
- KARAYILMAZLAR, S. 2005. Analysis of Turkey's foreign trade in non-wood forest products. (Available at: https://www.researchgate.net/publication/295991879_Analysis_of_Turkey's_foreign_trade_in_non-wood_forest_products)
- Mehmet Korkmaz and Emine Aybüke Duman 2019. Assessments about foreign trade of some non-wood forest products in Turkey, Turkish Journal of Forestry, 2019, 20(4): 401-410. (Available at: <https://dergipark.org.tr/tr/pub/tjf/issue/51103/600146>)
- Ministry of Family, L. a. (2014). Analysis of Female Labor Statistics Profile in Turkey. Ministry of Family and Social Policies, (Available at <https://www.ailevecalisma.gov.tr/uploads/ksgm/uploads/pages/dagitimda-olan-yayinlar/turkiye-de-kadin-istatistikleri-ve-istatistiklerinin-analizi-nihai-rapor.pdf>)
- PAKSOY N.B. 2020. Legal systems in Turkey: overview. Thomson Reuters Practical Law, (Available at: [https://uk.practicallaw.thomsonreuters.com/w-016-2851?transitionType=Default&contextData=\(sc.Default\)&firstPage=true&bhcp=1](https://uk.practicallaw.thomsonreuters.com/w-016-2851?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1))
- Sibel Korkmaz, Hasan Alkan 2015. The role of women in community life in forest villages: The example of Isparta Forest District. Turkish Journal of Forestry, 2015, 16(2): 141-151. (Available at https://www.researchgate.net/publication/283528654_Orman_koylerinde_kadının_toplumsal_yasamdaki_rolu_Isparta_Orman_Isletme_Sefligi_ornegi)
- TAMALI, H.S., OZKIRIM, A (2019). Beekeeping Activities in Turkey and Algeria. Mellifera 19(1): 30-40.

TURKSTAT, 2020, Address Based Population Registration System Results, 2019, Turkish Institute of Statistics, (Available at <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=33705>)

TURKSTAT, 2020, Address Based Population Registration System Results, 2019. (Available at <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=33705>)

UNDP, 2018. Bay Value Chain Analysis Research Report, United Nations Development Program, (Available at: https://www.tr.undp.org/content/turkey/tr/home/library/environment_energy/odund-orman-ueruenleri--defne-deer-zinciri-analizi.html)

World Bank, 2017, Turkey- Forest policy note (English). The World Bank, Washington, D.C. USA, (Available at: <http://documents.worldbank.org/curated/en/694751507885204989/Turkey-Forest-policy-note>)

World Bank, 2017a. Poverty, Forest Dependence and Migration in the Forest Communities of Turkey: Evidence and Policy Impact Analysis. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/28590> License: CC BY 3.0 IGO.” (Available at: <https://openknowledge.worldbank.org/handle/10986/28590>)