

Supply Base Report: Se- Ba Orman Ürünleri Sanayi ve Ticaret Ltd. Şti

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Completed in accordance with the Supply Base Report Template Version 1.3

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

Document history

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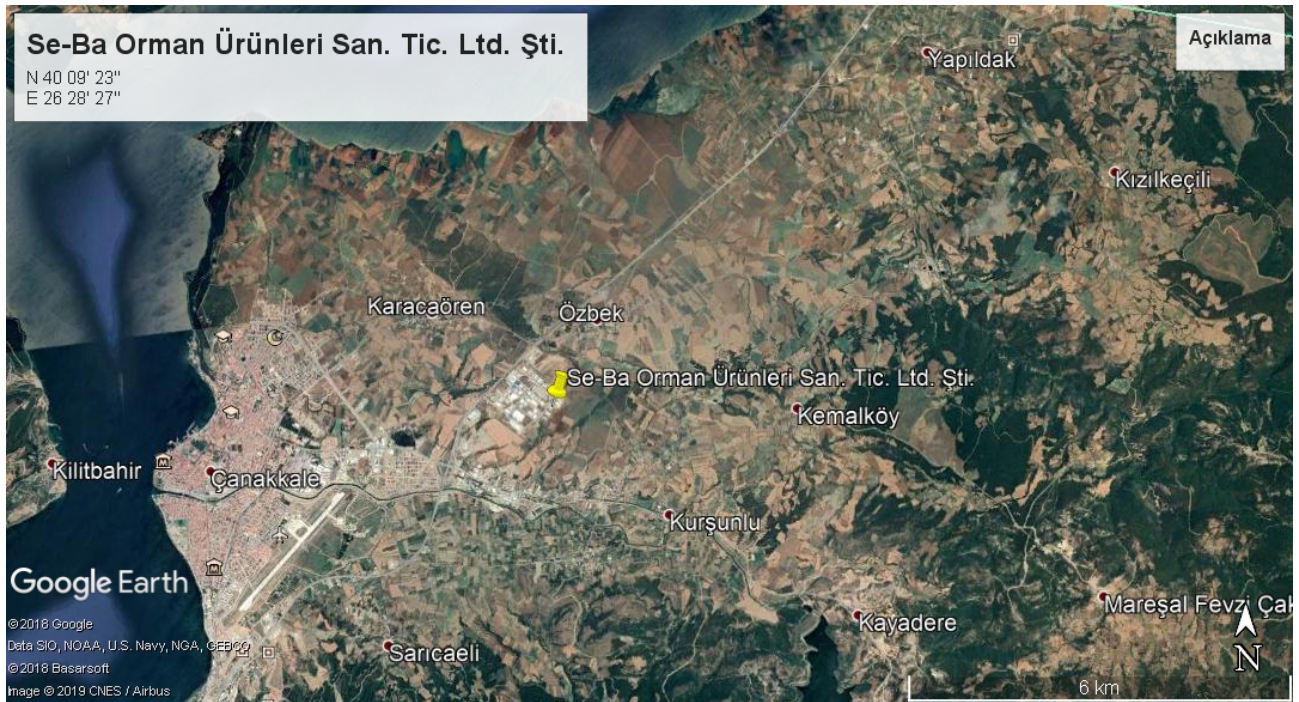
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1 Overview

Producer name: Se-Ba Orman Ürünleri Sanayi ve Ticaret Ltd. Şti.

Producer location: Çanakkale Organize Sanayi Bölgesi 6. Cadde No:1, 17100 Çanakkale - Turkey

Geographic position:



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Company website: www.seabioenergy.com

Date report finalised: 29/Sep/2019

Close of last CB audit: 30/Oct/2019

Name of CB: UAB NEPCon LT

Translations from
English: Yes

SBP Standard(s) used: Standard 2 version 1.0, Standard 4 version 1.1, Standard 5 version 1.0

Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>

SBP Endorsed Regional
Risk Assessment: N/A

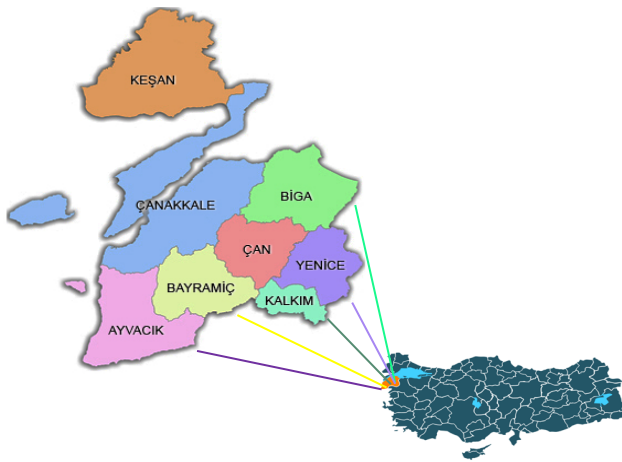
Weblink to SBE on
Company website: www.sebabioenergy.com

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Description of the Supply Base

2.1 General description

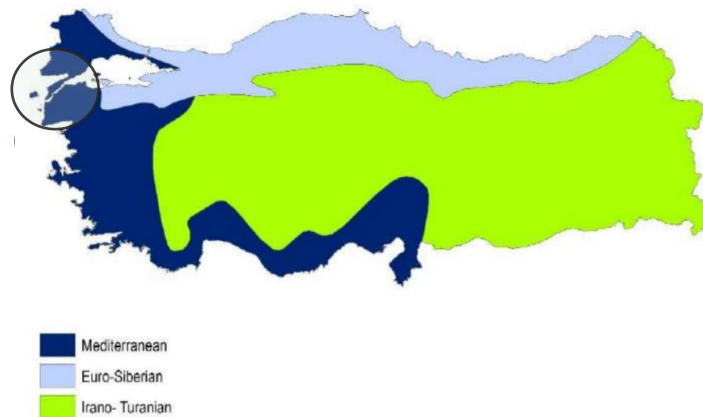
Se-Ba Orman Ürünleri San. Tic. Ltd. Şti. (Seba) operates the ÇOSB Seba integrated sawmill and wood pellet plant located in Çanakkale province (Northwest) of Turkey. The supply base area is Çanakkale Regional Directories of Forestry, which includes Çanakkale, Biga, Çan, Yenice, Kalkım, Bayramiç, Ayvacık District Forestry Operation Directorates. The supply base area contains 538.782 hectares of forestland.



General Information Concerning Biological Diversity and Ecosystem:

Three phytogeographical regions (reflecting relationships between the distribution of plant species and geographical characteristics in the world) out of 37 identified in the world do overlap in Turkey, namely Euro-Siberian, Mediterranean and Irano-Turanian phytogeographical regions. Corresponding biogeographical regions identified in European Union are the Black Sea, Mediterranean and Anatolian Biogeographical Regions. (Figure-1 Phytogeographical Regions of Turkey) ; Davis, 1965-1985).

Figure-1 Phytogeographical Regions of Turkey



(Source: Agence Française de Développement- AFD, Davis, 1965-1985. <https://www.afd.fr>)

The forest ecosystems in Turkey show great difference in its structure, composition and processes; from west to east and from north to south. Forests ecosystems in the Taurus Mountains are diverse in terms of plant species richness. The Caucasus part has old growth forests; the Western Black Sea Region has forests with high woody species richness which makes peak around Yenice and Küre Mountains. Amanos Mountains are prominent with its Black Sea Forest enclave, Central and Eastern Anatolia has oak woodlands, which bears high number of oak species, high plant and butterfly diversity.

The forest types observed in Turkey according to the phytogeographical regions are as follows:

- Euro-Siberian Phytogeographical Region has deciduous forests (beech, chestnut, hornbeam) humid and semi-humid coniferous forests (black pine, Scotch pine, spruce, fir), dry oak and pine forests (oak, black pine, Turkish pine), shrublands (pseudo-maquis and oak-hornbeam) formation.
- Mediterranean Phytogeographical Region is dominated by maquis and garigue formations (Kermes oak, sandal, gum, myrtle, laurel) in the lowlands, coastal and low-altitude areas are covered by Turkish pine forests, middle to high altitude (1,000-1,900 m) areas are covered by black pine, Taurus fir and cedar forests and juniper formations.
- Irano-Turanian Phytogeographical Region has steppe woodlands dominated by oak and juniper species, Black pine forests in transition regions.

Supply Base Area is in both phytogeographically and biogeographically Mediterranean Region.

Forests are among the well-studied and well-protected ecosystems of Turkey. Turkey's forests are more or less stable in terms of their coverage, it is difficult to locate a forest patch where no anthropogenic influence is present. Ministry of Forestry and Agriculture (General Directorate of Forestry) takes serious steps to protect the forest biodiversity, and preserve the pristine and old growth forests in the country.

Especially in the Mediterranean Region, forest ecosystems are expected to be drastically affected by the adverse effects of the climate change. These changes in forest ecosystems are taken into consideration undeniably have serious social, economic and environmental impacts (e.g. increases in pests and forest fires; Zeydanlı et al., 2010).

Although Turkey has a highly professional GIS-based fire prevention and firefighting system, forest fires are taken most seriously when listing factors that affect forest biodiversity. In addition, urbanization processes pressure on forest ecosystems and the expansion of industrial and urban areas, increment of air pollution are being monitored, precautions and controls are strictly implemented.

In the coastal zone of the country, forests and forest species additionally encounter threats due to land transformation related to intensified tourism sector. Through the "Turkish Endemic Plants Project", implemented with State Planning Organization support between 1992 and 1997, seeds of many endemic plants were collected for the purpose of ex-situ conservation at the Gene Bank of Menemen within the Aegean Institute of Agricultural Research affiliated to the Ministry.

Efforts towards to identification of areas richest for plant species led to the publication of the inventory of "Important Plant Areas of Turkey" (IPA) by WWF-Turkey (Özhatay et al., 2003). A set of criteria was employed to identify IPAs following the Plantlife International's guidelines, such as presence of threatened plant species, of botanical richness and of threatened habitats.

There are various studies carried out in Turkey. One of these, the Systematic Conservation Planning (SCP) is a complementarity based approach used for delineating sites of conservation priority for multiple taxa through a multi-criteria optimization process (Margules and Pressey, 2000). The SCP studies have been carried out in 6 regions namely and priority conservation areas were identified: Mediterranean, Southeast Anatolia, Lesser Caucasus, Aegean, Anatolian Diagonal and Black Sea Regions. The comprehensiveness of the evaluation process has been improved with each project through addition of new aspects related to persistence of biodiversity; developing new procedures for analysing threats and socio-economic aspects, adapting some analyses to local conditions due to issues on legislation, cultural, socio-economic and political characteristics, data availability and/or quality, and other limitations. As a result, the Ministry of Forestry and Agriculture has adopted the SCP approach for determining Natura 2000 sites in Turkey. It is therefore of importance to finalize the regional SCP studies in the Eastern Anatolia, Central Anatolia and Thrace Regions. Institute for Pre-Accession Assistance (IPA) project entitled “Technical Assistance for Strengthening the National Nature Protection System for Implementation of Natura 2000 Requirements” has been started as of 2015 in Turkey. In the framework of the project, methodological links between SCP approach and Natura 2000 delineation system will be established and tested in Central Anatolia Region to identify potential Natura 2000 sites in the region.

Biodiversity Legal Framework:

Constitutional legislative background: Several Articles (Article 35, Article 44, Article 45, Article 56, Article 63 and Article 169) of the Constitution (1982) provides the necessary basis for the conservation of biological diversity and several laws and regulations are in force in line with the provisions of the Constitution in this respect. Article 63 of the Constitution indicates that the State shall protect historical, cultural and natural assets and take supporting measures for this purpose. This Article also provides for the conservation of species in their natural environments. In addition, even if they are not directly intended for the conservation of biological diversity, there are provisions for environmental protection in Article 56, the limitation introduced by Article 35 on the exercise of private ownership in view of public benefit and the provisions in Article 44 concerning the efficient use of land, in Article 45 concerning the prevention of the use of agricultural land, meadows and pastures for other purposes and in Article 169 concerning the conservation and development of forests, thereby securing the conservation of biological diversity through legal sanctions.

National Legislation: The National legal framework covers some fundamentals of nature protection policies and programmes.

National Laws / By Laws and the responsible governmental institutions for their implementation. (Table-1)

Table-1: Law/By Law Name Responsible Governmental Institution:

Law/By Law Name	Responsible Governmental Institution
Law on National Parks	Ministry of Forestry and Agriculture
Terrestrial Hunting Law	Ministry of Forestry and Agriculture
By-law on the Protection of Wetlands	Ministry of Forestry and Agriculture
By-law on Implementing the CITES Convention, Convention on International Trade in Endangered Species of Wild Fauna and Flora CITES	Ministry of Forestry and Agriculture

The Law on National Mobilization for Afforestation and Erosion Control	Ministry of Forestry and Agriculture
Law for the Protection of Cultural and Natural Assets	Ministry of Environment and Urbanization (for Natural Assets) Ministry of Culture and Tourism (for Cultural Assets)
Decree-Law Establishing the Special Environmental Protection Agency (SEPA)	Ministry of Environment and Urbanization
By-Law on EIA, Environmental Impact Assessment	Ministry of Environment and Urbanization
The Coastal Law	Ministry of Environment and Urbanization
Law on Aquatic Products	Ministry of Forestry and Agriculture
By-law on Propagation, Collection from Wild and Export of Bulbous Flowering Plants	Ministry of Forestry and Agriculture
The Pasture Law	Ministry of Forestry and Agriculture
The Agriculture Law	Ministry of Forestry and Agriculture
The Soil Protection and Land Use Law	Ministry of Forestry and Agriculture
The Organic Farming Law	Ministry of Forestry and Agriculture
The Regulation Concerning the Protection and Use of Agricultural Land	Ministry of Forestry and Agriculture
By-law on the Collection, Protection and Utilization of Plant Genetic Resources	Ministry of Forestry and Agriculture
By-law on the Protection of Animal Genetic Resources	Ministry of Forestry and Agriculture
By-law on the Protection of River Basins and Preparation of River Basin Management Plans	Ministry of Forestry and Agriculture

CITES, IUCN Species

CITES and IUCN are not impacted by forestry operations in Turkey. CITES and IUCN requirements are enforced under the related Environmental Protection and Biodiversity Conservation laws. Moreover, the laws, strategies, action plans, signed international conventions in Turkey, have links with the European Union's legal tools for protection of endangered species and biodiversity.

Categorisation of the forests:

Forests can be categorized into three groups in terms of their forms of management. These groups include high forests, coppice forests and high coppice forests. While about 433.329 hectares of forests in the Supply Base Area are productive high forests (more than 80 percent of the overall forested lands), the remaining 106.453 hectares are degraded forests.

As part of the forestry management plans, inventory works are conducted that cover the issues of forest resource potential, health, tree species and productivity etc. The data obtained from these works are numerically assessed and management plans are organized according to assessment results.

In terms of their size and the changes they go under and according to the forest inventory assessment results obtained so far, the size of general forested lands was revealed to be 20.2 million hectares (26.1

percent), between 1963 and 1972, and 22.6 million hectares (28.7 percent) in 2018, which is the latest inventory year. According to these inventory results, the forest lands have increased by 2.4 million hectares over the last 40 years, which correspond to 3,06 percent of the country's overall territory. Chart-1, Chart-2

Chart-1: Distribution of Increment Forest Land 205 - 2018 (Turkey)

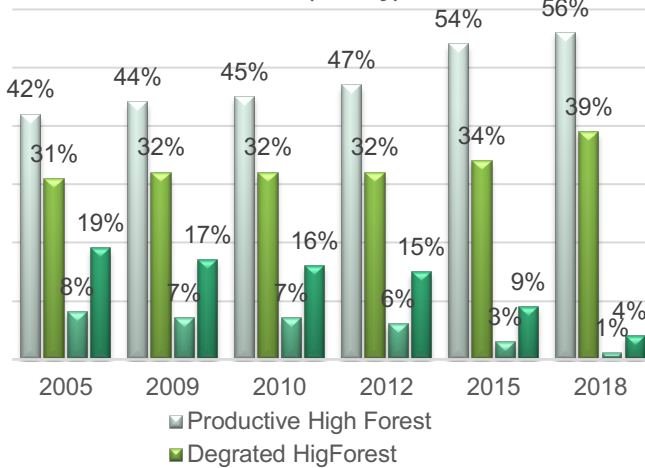
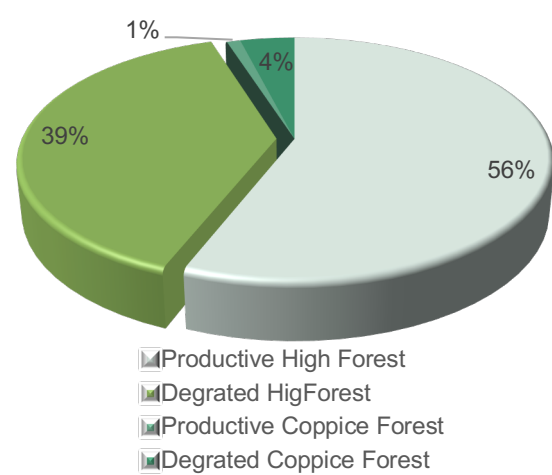


Chart-2: Distribution of Forest Land 2018 (Turkey)



In Supply Base Area managed by Çanakkale Regional Directorates of Forestry, all forests are high forests. Table-2

Table-2: Forest Land Distribution

Supply Base Area (Çanakkale Regional Directorates of Forestry) Compared to Turkey, 2018, and Forest Land Distribution									
Regional directorate of forestry	High forest			Coppice forest			General forest area		
	Productive	Degraded	Total	Productive	Degraded	Total	Productive	Degraded	Total
Turkey	12.633.298	8.788.471	21.421.769	349.850	850.316	1.200.166	12.983.148	9.638.787	22.621.935
Çanakkale	433.329	106.453	539.782	-	-	-	433.329	106.453	539.782
%	80%	20%	100%	-	-	-	80%	20%	100%

Ownership, administration and management:

Forests in the Republic of Turkey are exclusively state's property. According to Turkish Constitution, State Forests are administrated and managed by the State in accordance with the principles determined by the Ministry of Forestry, and subject to the control of the General Directorate of Forestry.

Forest resources are protected against all forms of threat, and developed by an understanding of nature conservation; administrated and managed by General Directorate of Forestry by maintaining ecosystem integrity, in a way to provide multiple sustainable benefits to society and by pursuing preservation-utilization balance, following forest management plans in accordance with the Constitution, the law and legislation provisions.

The forest products by General Directorate of Forestry are sustainably and legally produced from registered, State-owned forests pursuant to forest management plans, conforming to EN-TR standards and abiding by the principles stated above. Privately owned forested lands constitute less than 1 percent of the total amount. Turkey’s forests are managed by forest chief engineers in line with management plans that run on cycles of 10 to 20 years.

When a general assessment is made, current forested lands are on the increase in terms of their areas and growing stock when compared to the past. Regarding other product and service functions of forests apart from non-wood output, the latest planning and implementing activities affected this change. Also, the activities conducted for the protection and improvement of forests have been influential in effecting an increase of forests in terms of area and the stock.

Growth to Drain Ratios:

The average annual allowable cut that is slated to be obtained from forests in terms of wood output differs according to their operation forms. While this amount of 15,5 million cubic meters were produced by General Directorate of Forestry and, 4,8 million cubic meters were produced by private operators. So, the total amount was calculated as 20,3 million cubic meters.

The tree stock of Turkey’s forests is the total of growing stock of barked cylindrical stem volume of the trunks with diameters of 8 cm or more. According to this, there was around a 370 million-cubic-meter increase in tree stock of the country’s forests between 2005 and 2018. The main reasons for this achievement are the increase in forested lands and improvements in degraded forest lands. Table-3, Chart-3, Chart-4

Table-3: Growing Stock Distribution

Supply Base Area Growing Stock (Çanakkale Regional Directorates of Forestry) Compared to Turkey,2018 and Growing Stock Distribution (m³)						
Regional directorates of forestry	High Forest			Coppice		
	Productive	Degraded	Total	Productive	Degraded	Total
Turkey	1.574.233.433	65.149.099	1.639.382.532	14.013.759	4.723.709	18.737.468
Çanakkale	56.934.766	1.044.962	57.979.728	-	-	-
%	98%	2%	100%	75%	25%	100%

Chart-3: Distribution of Annual Increment 2005 - 2018 (Turkey)

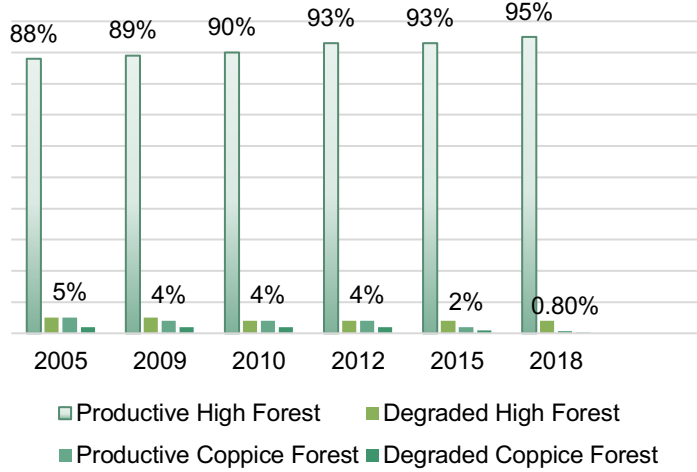
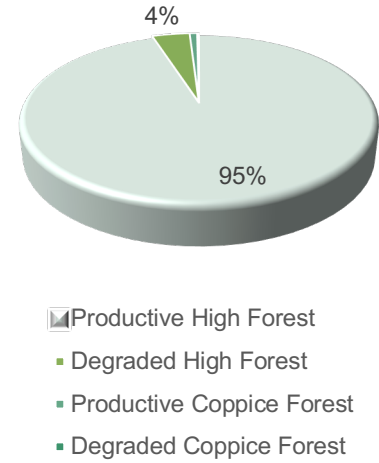


Chart-4: Distribution of Growing Stock 2018 (Turkey)



Data Collection:

The data on Turkey's forests regarding their area, growing stock, increment, tree species and other factors are highly reliable since they are collected with a great effort from a series of detailed data for the preparation of forest management plans. Since forest management plans form the basis of all the activities on forests, the needs of new data and information that emerge parallel to forestry improvement are met in the phase of management planning.

Forests and Community:

There are four national, historical and natural parks contains 67.458 hectares and 28 recreation and picnic areas in the Supply Base Area. Table-4

Table-4 National, Historical and Nature Parks in Çanakkale Regional Directories of Forestry

Name of the Park	Description	Area (ha)	Established	Link
Kazdağı	Kazdağ (Mount Ida) National Park	20.935	17.04.1994	http://kazdagi.tabiat.gov.tr/
Troya	Troya (Troy) Historical National Park	13.517	7.11.1996	http://troya.tabiat.gov.tr/
Gelibolu Peninsula	Gelibolu (Gallipoli) Historical Park	33.000	22.11.1973	https://catab.ktb.gov.tr/
Ayazmapınarı	Ayazma Natural Park	6	11.07.2011	http://ayazmapinari.tabiat.gov.tr

(Source: Directorate of Nature conservation and National Parks <http://www.milliparklar.gov.tr>)

Areas where recreation is one of the main forest management objectives add up to 13 % of the total forest area. Historical war zone (Gallipoli peninsula), ancient Trojan ruins, open museums and excavation areas, natural objects of culture history value, picnic venues: they are just a few of recreational infrastructure objects available to everyone. Special attention is devoted to creation of such areas in state-owned forests. Recreational forest areas include national parks, strictly protected nature parks, protected landscape areas, protected dendrological objects, protected geological and geomorphologic objects, nature parks of local significance, protective zones around cities and towns, forests within administrative territory of cities and towns. Management and governance of specially protected natural areas, national parks in Turkey is coordinated by the Directorate of Nature Conservation and National Parks under the Ministry of Agriculture and

Forestry, and Directorate General for Preservation of Natural Heritage under the Ministry of Environment and Urbanisation.

There are 21,584 forest villages with 7,346,297 people in Turkey, and 561 villages with 140.653 people in Supply Base Area, who are mainly depending on forest ecosystem goods and services for living (industrial wood production, fuelwood production, non-timber forest products (NTFP), ecotourism, water production, etc.).

The Forest villagers in Turkey are protected by Article 170 of the Constitution. Provision of the article is “The State shall take measures to facilitate the acquisition of equipment and other inputs by these inhabitants”. It is also aimed forest villagers have the privilege of benefiting from forest wealth through developing cooperativism. Village cooperatives are well spread across Turkey and united under the Köy-Koop Central Union, which is member of ICA and Cogeca.

Given by Law and enrolments, the forest villages cooperatives have their allocated share in annually programmed harvesting volume on preferential rates, which is managed and administrated by Directorate of Forest and Village Relations.

2.2 Actions taken to promote certification amongst feedstock supplier

Seba strictly procures raw material from fully certified suppliers. This policy is demonstrated through the Company’s chain of custody management system. Producers in the region without certification are typically small-scale operators and do not have a commercial imperative to acquire certification. Seba actively promotes the benefits of certification to these suppliers through their exclusion from Seba’s purchase options.

2.3 Final harvest sampling programme

100% of the forest stands are harvested as final fellings. Only the waste material (all material that does not meet sawlog specifications) is used for biomass production including sawmill residues for pellets production. Data is compiled from annual summary of monthly fibre reports. Fibre inputs other than mill residuals are included as final fellings.

2.4 Flow diagram of feedstock inputs showing feedstock type [optional]

Insert flow diagram.

2.5 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (ha): 539.782 ha. Turkish State Owned that are FSC certified. (claim FSC 100%)
- b. Tenure by type (ha): 100% public ownership (General Directorate of Forestry – Çanakkale Regional Directorate of Forestry)
The total Supply Base 539.782 ha.
- c. Forest by type (ha): 472.324 ha. Temperate forests.
The total Supply Base 539.782 Ha.
- d. Forest by management type (ha): Managed Natural forests.
The total Supply Base 539.782 ha.
- e. Certified forest by scheme (ha): FSC certified 100%.
The total Supply Base 539.782 ha.

Feedstock

- f. Total volume of Feedstock: 0 – 200.000 tonnes
- g. Volume of primary feedstock: 0 – 200.000 tonnes
- h. List percentage of primary feedstock (g), by the following categories:
 - Certified to an SBP-approved Forest Management Scheme - 100%
 - Not certified to an SBP-approved Forest Management Scheme – 0%
- i. List all species in primary feedstock: Pinus Brutia), Pinus Nigra
- j. Volume of primary feedstock from primary forest 87,5 %
- k. List percentage of primary feedstock from primary forest (j), by the following categories.
 - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme - 100%
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme – 0%
- l. Volume of secondary feedstock: 12.500 tonnes of sawdust and sawmill residues from sawmills as production waste.
- m. Volume of tertiary feedstock: 0%

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
<input type="checkbox"/>	X

4 Supply Base Evaluation

4.1 Scope

Not applicable

4.2 Justification

Not applicable

4.3 Results of Risk Assessment

Not applicable

4.4 Results of Supplier Verification Programme

Not applicable

4.5 Conclusion

Not applicable

5 Supply Base Evaluation Process

Not applicable

6 Stakeholder Consultation

Not applicable

6.1 Response to stakeholder comments

Not applicable

7 Overview of Initial Assessment of Risk

Not applicable

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

Not applicable

8.2 Site visits

Not applicable

8.3 Conclusions from the Supplier Verification Programme

Not applicable

9 Mitigation Measures

9.1 Mitigation measures

Not applicable

9.2 Monitoring and outcomes

Not applicable

10 Detailed Findings for Indicators

Not applicable

11 Review of Report

11.1 Peer review

If an external peer review of this report was done prior to finalisation, describe the process that was followed and the competency of the parties involved.

11.2 Public or additional reviews

The public version of the supply base report in the Turkish and English languages is publicly available at <http://www.sebioenergy.com> for interested parties. After familiarization with the report, comments and clarifications can be sent to arnita.info@sebioenergy.com

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	Dilek Yılmaz	Quality Assurance Manager	27.09.2019
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	Erol Bayındır	General Manager	27.09.2019
	Name	Title	Date

13 Updates

Not applicable

13.1 Significant changes in the Supply Base

Not applicable

13.2 Effectiveness of previous mitigation measures

Not applicable

13.3 New risk ratings and mitigation measures

Not applicable

13.4 Actual figures for feedstock over the previous 12 months

The company has started its operation from March 2019. Total purchases until September 31, 2019 –6.333 tonnes sawmill residues.

13.5 Projected figures for feedstock over the next 12 months

Project data for a new plant from January 1 – December 31, 2020 - 200 000 tonnes