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Country statement

Turkey

- Forest Products Markets and Marketing-

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Forest Products Markets
in Turkey

1 Introduction

In this report, production, consumption and foreign trade of wood and non-wood raw forest products, primary and secondary processed wood products, wood processing industries, information collection and dissemination systems in Turkey are analyzed.

Raw wood materials (products) are; fuel wood, saw log and veneer log, pulpwood, other industrial wood and wood residues. Pulpwood includes raw materials used for pulp, particle-board and fibre board production with bark or without bark, round or split. Other industrial round wood includes small logs (mainly used for pallets and packing industry and parquet production, in shape round or split with bark or without bark), poles, pitprop, pillar etc.

Non-wood forest product (NWFP) includes all products, other than wood, driven from trees, bush, shrub and other plants. These product are; fruits, nuts, flowers, barks, leafs, roots, fresh branches and exiles, onions, lumps, mushrooms balsamic oils etc.

Main primary or secondary processed wood products that analyzed in this report are; sawn-wood, wood based panels, further processed sawnwood, wooden wrapping and packaging material, builder's joinery and carpentry of wood, prefabricated buildings preponderantly made of wood and wooden furniture.

The main sources of raw forest products are state forest, fast-growing tree species (mostly poplar and eucalyptus) plantations in the agriculture lands and import. All processed wood products and other forest industry products are produced by private sector which mainly composed of small enterprises.

Turkey is net importer country for round wood and primary processed wood product but net exporter country for wood furniture and some further processed wood products. Total value of all wood product (chapter 44) excluding furniture is 560 million $ and export value is 200 million $.The detailed information about round wood, non-wood products and forest industry products markets are given bellow.

2 Round wood market

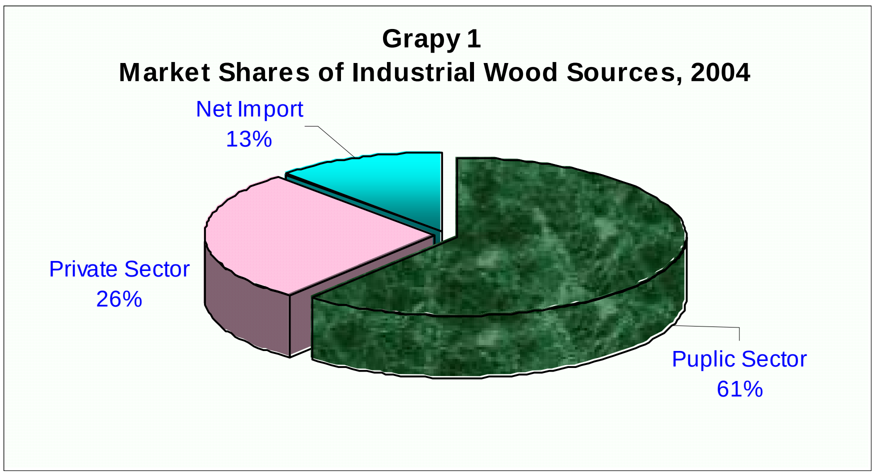
The annual apparent consumption of industrial wood is about 13-13,5 million m³ and fuel wood apparent consumption is about 6-6,5 million m³. The round wood production made from state forestry meets about 73% of the round wood consumption. According to 2004 figures, the net import amount of round wood is 2.045.000 m³ and it's share in the total consumption is 11 percent. Industrial roundwood net import amount is 1.750.000 m³ in the same year. Contribution from private forests, which are less than 1% of the total forestland, is minor. On the other hand, fast-growing tree species plantations and agro forestry sites outside forest areas provide a significant amount of wood supply for the domestic market.

Roughly 7,5-8 million m³ of industrial round wood and 5.0 million m³ fuelwood are produced from the state forests by GDF annually. Private sector fast-growing plantations and agro forestry sites produce about 3.2 million m³ industrial round wood and 1,5 fuel wood annually. The share of private side and import in industrial round wood market is relatively high. Industrial wood production and consumption amounts are given in *table 1* and market shares of industrial wood source are given at *graph 1*.

Table 1- Industrial Round Wood Production and Consumption by Years, 1995-2004 (1000 m^3)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Production	**10984**	**10548**	**10146**	**10315**	**10442**	**10590**	**10078**	**11305**	**10670**	**11496**
State	8046	7529	7046	7148	7242	7328	6778	8005	7320	8196
Private	2938	3019	3100	3167	3200	3262	3300	3300	3300	3300
Consumption	**11535**	**11602**	**11650**	**11542**	**12051**	**12784**	**11008**	**12453**	**12190**	**13000**
Sate sales	7743	7413	7451	7104	7351	7642	6778	8109	7420	7950
Private sector sales	2938	3019	3100	3167	3200	3262	3300	3300	3300	3300
Net Import	854	1170	1099	1271	1500	1880	930	1044	1398	1750

Source: *General Directorate of Forestry*.



Source: *General Directorate of Forestry*.

The major tree species for round wood production in national forest are; Calabrian pine, Crimean pine, Scots pine, beech, fir, spruce, cedar, and oak. The most favourable domestic tree species for veneer sheet and furniture are oak, Crimean pine, Scots pine and beech. The country has a vast variety of tree species and some locally produced high quality saw-logs and veneer logs, but their amount is limited. Ninety seven per cent of log production is third class. Therefore there is a large gap between domestic demand and production of high quality logs and this gap closed by import.

The major utilization areas of industrial wood are; sawn wood manufacture industry, wood-based panel industry, pallets, wooden wrapping and packaging equipment production, and parquet production and other flooring, wood pulp production, mining, telecommunication and electrical transmission lines.

Fuel wood consumption as an energy source is rather common in rural area especially for heating purpose. The largest portion of fuel wood, some of which is harvesting residues, is consumed by villagers located in or near the forest. Wood residues consumption, especially for heating purpose, is also extensive. Nearly all wood processing residues are used as energy source such as house heating or as raw material in industry. Wood based panel industry uses approximately 500 thousands tons wood processing residues. There is no sufficient data about other residues consumption.

The value of round wood production is about 1,3 billion $. The total value of wood raw material (round wood, Wood chips and particle and wood processing residues) import is about 200 million $. As a result, wood raw material market size about 1,5 billion $ and the forestry sector contribution to Gross National Production (GNP), including non-wood products and some services, is about 0,4 percent.

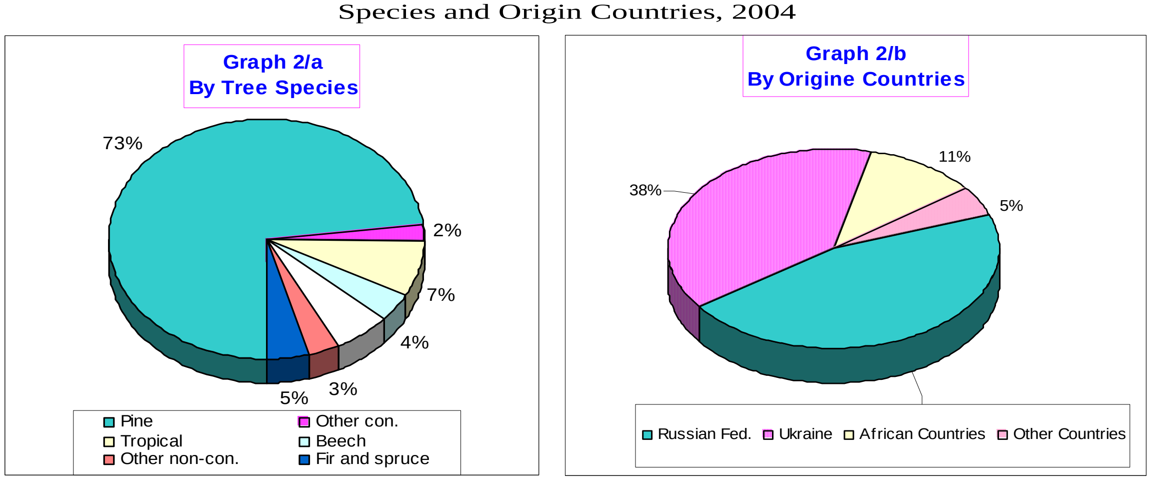
Turkey is a net importer country for roundwood, wood chips and particle and wood residues. Export amount and values of these products are insignificant. Import amount and value are significantly changed year to year depending on the certain factors such as currency rates, domestic demand and prices. Industrial round wood import amount varied from 0,8 million m^3 to 2 million m^3 in last decade. Wood raw materials imported mostly from CIS, especially from Russian Federation and Ukraine. Import and export amount and values of 4401, 4402 and 4403 codes are given in the *table 2* and import origins and tree species are shown at *graph 2*.

Table 2. Wood raw material import and export amount and values by years

Import

Code of product	Product Name	Unit 1000	1998	1999	2000	2001	2002	2003	2004
4401	Fuel Wood	Ton	229	150	267	87	182	244	222
		$	11.378	6.300	11.368	3.378	7.370	10.752	12.851
440121-440122	chips and particles	Ton	-	-	3	6	50	324	604
		$	-	-	65	150	1.753	14.892	37.924
4401301-440190	Wood proc.rediuses	Ton	-	-	-	-	-	0	28
		$	-	-	-	-	-	31	2
4403	Industrial Wood	m3	1.032	1.290	1.650	829	821	1.079	1.758
		$	123.050	107.000	121.000	65.000	77.147	98.604	167.319
Export									
4403	Industrial Wood	m3	63	18	15	21	30	18	8
		$	7,8	3,9	3,5	4	4,3	2,8	2,2

Graph 2
Industrial Round Wood Import Amount by Tree Species and Origin Countries, 2004



Source: *State Institute of Statistics, General Directorate of Forestry*.

2 Forest products industries and Forest Industry products Market

The forest products industries are a small sector in the state economy in terms of its added-value and production value. Wood processing industries mainly composed of small enterprises, although there are a few integrated medium scale enterprises. According to some academic research, furniture and sawn wood manufacturing enterprise number is reported to be about 64 000. These enterprises, especially furniture and sawn wood manufacturing enterprise, are spread throughout the country. Many small-scale furniture enterprises and sawmills, with labor-intensive technologies, provide employment and income opportunities in the poor, rural areas. Therefore, the sector is important and strategic with respect to some of the development criteria such as employment creation, reducing regional differences and income distribution.

With minor exception, all wood industries belong to private. The State-owned wood industry plants and enterprises, including pulp and paper industries, have been privatized since 1993. However, the goals of privatization, such as technological renovation, productivity and production increase, have not been achieved. Capital flow to some east Europe and CIS countries, which have raw material advantages, and lower cost of production, play an important role for this unsuccessfulness. Although a few plants have been rationalized following the privatization, many are still closed or are operating below capacity. Especially wood pulp producing plants, which is not competitive, stopped or limited their production as a result of strong competition existing in global markets and over valuated Turkish Liras (TL) in last few years.

Although Turkey is rich in tree species, the shortage of supply in high quality round wood is an important constraint to producing high quality final products that are competitive in international markets. High wood harvesting costs from the forests located on difficult terrain and high costs of transportation to the plants, which are usually at long distances from the harvesting sites, are other disadvantages of the sector. On the other hand, rapid transformation in consumption patterns and habits, population increases, urbanization and a large and dynamic domestic market are advantages of the sector. Besides, increasing consumer confidence and economic stabilization achieved in last three years led to production, consumption and trade increases.

2.1 Production, Consumption and Foreign Trade of wood industries Products.

Total production value of wood industry excluding furniture is estimated to be about 3,5 billion $. Turkey is net importer country for many primary processed products but exporter country for furniture and some end use products. The general information about production, consumption and trade are given bellow by sub sectors and products groups

2.1.1. Sawn wood

Total annual sawn wood production capacity is about 10 million m3. The number of enterprises and the total production capacity are decreasing, whereas the numbers of medium-scale and integrated enterprises are progressively increasing. The production technologies are improving, and product innovation and diversification are developing. Consequently product quality is also improving.. The majority of sawmills are small enterprises, generally established in rural areas. Owing to the fact that these small craftwork enterprises are in operation only in certain periods of the year, their capacity utilization rates are extremely low. The remaining part of this branch consists of medium-sized enterprises, which have more advanced technology. Some of these enterprises are integrated with the other branches of the wood industries such as panel industry and furniture industry. The number of large-scale multinational companies in this industrial branch is quite limited.

The annual sawn wood production is about 5,5 million m^3 and consumption is about 5,8 million m^3. With exception some market expansion witnessed in last two year, any significant production and consumption increase did not witnessed in long term, mainly because of the substitution of solid sawn wood by various wood-based panels and engineered wood products as well as by non-wood substitutes. Import amount is about 400 thousand m^3 and export is about 100 thousands m^3. Main import origins are Russian Federation, Ukraine and

Georgia. Main export markets are North Cyprus, Iraq, Greece, Italy, Israel and Japan. Sawn wood production and consumption trade figures are given in *table 3*

Table 3- Production, Apparent Consumption and Foreign Trade of Sawn Wood by Years

Amount:1000 m³ Value: Million $

	Production amount		Import				Export				Consump-tion amount	
			Amount		Value		Amount		Value			
	Coni-fer.	Non Con.	Coni-fer.	Non Con.	Coni-fer.	Non Con.	Coni-fer.	Non Con.	Coni-fer.	Non Con.	Conifer.	Non Con.
1996	2936	2232	164	27	25	10,7	19	4	9	3,6	3081	2255
1997	3047	2199	117	51	19	10,5	20	8	11	4,1	3144	2242
1998	2609	2282	188	78	25	15,4	6	9	1	4,4	2791	2351
1999	2694	2345	207	100	22	13	17	19	1	9,7	2884	2426
2000	3118	2410	235	77	21	12	15	28	3	8	3338	2459
2001	2597	2337	140	38	14	7,4	132	36	26	8,2	2605	2339
2002	2764	2410	119	77	13	12,9	104	54	19	8,1	2779	2433
2003	2986	2629	130	106	12,4	14,8	59	41	6,5	6,5	3057	2694
2004	3625	2590	272	101	29,0	17,5	37	20	7,0	4,4	3860	2671

Source: *State Institute of Statistics, General Directorate of Forestry*.

2.1.2 Wood-based panels

Wood based panel industry is the fastest developing wood processing industry. Especially, particle board and fibre bord established production capacities and production amounts are increasing dramatically. Fibre board production capacity expanded by 200% in last two years and reached 2,1 millions m³ in the end of 2004. Particle board production capacity is also expanded more than estimated in last years. Paralleling the increasing investment production and consumption amounts are increasing, as well as foreign trade. Annual production of particle board is about 2,7 million m³ and fibre board is about 1 million m³ but fibre board production is estimated to exceed 1.7 million m³ in 2005. Although export is increasing, the particle and fibre board production is oriented towards the domestic market. Production, consumption and foreign trade figures are given I *table 4*.

Table 4- Particleboard and Fibreboard Production, Consumption and Foreign Trade by Years

1000 m3

	Paticle Board				Fibre Board			
	Production	Import	Export	Consumption	Production	Import	Export	Consumption
1996	1193	17	30	1180	344	51	8	387
1997	1728	25	31	1722	509	49	7	551
1998	1525	19	27	1517	468	83	10	541
1999	1586	14	30	1570	535	45	14	566
2000	1903	219	32	2090	670	274	19	925
2001	1664	33	64	1633	580	88	82	586
2002	1999	77	99	1977	700	227	90	837
2003	2264	156	112	2308	810	319	176	953
2004	2700	273	176	2797	1003	369	185	1187

Source: *State Institute of Statistics, General Directorate of Forestry*.

Wafer board and OSB plant haven't established in turkey but there are some projects. Veneer sheet and plywood industries are relatively small and composed of small or medium size enterprises. Annual production capacities of veneer sheet industry is about 98 million m², production amount is about 55-60 million m² and the average production capacity per enterprises is 3.5 millions m²/year. The average production capacity of plywood per enterprises is 5600 m³/year and total annual production is about 70 thousands m³. Both of Import and export amount of veneer sheet are about 22 thousands m³. Import and export amount of plywood are about 60 and 30 thousands m³ respectively.

2.1.3. Other Wood Industry Products and Furniture

Further processed sawn wood, parquet and other flooring, wooden wrapping and packing equipment, Builder's joinery and carpentry of wood industries are important but there is no sufficient information about their production and consumption. The total import value of these products (Harmonized System -HS96 and HS 2002- codes 4409, 4415, 4416, 4418, 94060010) is 35 million $ and export value is 50 million $.

Wood Furniture industry is very important for all other wood product market as an essential end use area of wood. Wood furniture is manufactured mainly by small enterprises, but the number of medium-scale enterprises is increasing. Currently there are approximately 55,000 enterprises, of which 46 are big scale[1], 54 are medium scale and 9 are multinationals. The market share of retail chain stores is small. However, demand for reliable, high quality and standardized products is increasing dramatically. Rapid population increase, fast urbanization and transformation of consumption patterns are considerable advantages for the sector. However, both production and consumption have shown flat trends, with few fluctuations between 1996 and 2002. The main factors adversely affecting demand were the contraction of the construction sector and reduced confidence of consumers owing to abnormal fluctuations in the financial market, as well as the economic crisis witnessed frequently in that period. There is significant recovery since 2002, as a result of consumer confidence, economic stabilization and activation of cancelled or postponed demand before.

Although the sector composed of mainly small enterprises, the industry is quite active and competitive. Besides, technological development and product promotion are continuing. Export of furniture have increased dramatically since 1996, but that incredible increase of furniture export estimated to slow dawn in 2005 depending on domestic demand increase and overvaluation of TL. Major export markets are Germany, Greece, Netherlands, USA Israel and Iraq. Major import origin countries are Italy, Germany, USA, China and Indonesia. Production value and foreign trade figures are given at *table 5.*

Table 5- Wooden Furniture production, Consumption and foreign trade values by years

Million $

	Production Value	Import Value	Export Value	Consumption Value
1996	1135	68	38	1165
1997	1201	86	40	1247
1998	1147	95	49	1193
1999	1125	79	65	1139
2000	1217	99	83	1233
2001	1180	58	93	1145
2002	1323	53	135	1241
2003	1352	65	215	1202
2004	1400	105	290	1215

Source: *State Institute of Statistics, General Directorate of Forestry, T.R Prime Min. State Planning Organization.*

[1] The enterprise have more than 100 worker is considered to be Big scale and enterprise have more than 50 worker considered to be medium scale.

2.1.4 Non-wood Forest Product Market

Turkey is a country at the crossroads linking Asia, Europe and Africa. Thus, the country has significant diversity in geological structure, topography, climate and plant cover. Due to different climatic and geographic conditions in Turkey, many trees, shrubs, herbaceous plant species naturally grow in the Country. The non-wood products (NWFP) derived from those plants are generally exported as raw or semi-raw materials while some of the products are consumed in domestic market.

Major non-wood forest products are; resin, resinous wood, storax of Liqudambar orientalis, leaves of Laurus nobilis L, Eucalyptus spp, Thymus spp, etc, fruits of Quercus ithaburensis Decne, Rhus L., Cerasus mahalep L, Pistacia terebintus L, Pinus pinea L etc, bark of Pinus brutia Ten, Betulus spp, corms of Galanthus and others bulbus plants, oak gull, mushrooms.

The General Directorate of Forestry (GDF) is responsible for the sustainable management of NWFP in the forest areas which is 21,2 million ha. According to current legislation, collection, utilization and marketing rights for NWFP (e.g., pine nut, chestnut, acorn, thyme, herb tea, snow drop, prunes, natural mushrooms and various bulbs plants) are given by GDF at modest tariff prices, especially to local villagers and cooperatives to improve their economic condition and to improve public relation. More than 100 different kind NWFP are produced from state forests. Major NWFP production amount are given *table 6.*

The current estimated economic value of NWFPs, harvested from forest areas is about $70 million $. Beside forest areas, NWFP are produced in non cultivated agricultural area and other natural resources. Some NWFP are also produced by cultivation way.

The main market for NWFP is export. Total export value of NWFP harvested from all resources is about 80 million $. NWFP domestically consumed are primarily sold in bazaar, market stalls and herbalists.

Table 6- Production amounts of some non-wood forest production by years

ton

Products Name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Resins			124	223	391	495					0
Resionus wood		4233	5551	4931	4752	2211	5954	7972	7770	10649	6800
Chips of Resionus-wood	34	6	294	177	515	107	161	60	210	178	0
Sweetgum oil	2	4	1,5	3	1,5	4,2	3,3	5,3	2,2	1,7	1,373
Laurel leaves	2393	3125	6764	6004	4229	4661	5738	8001	6626	3350	4600
İnsence	0,8	-	0,9	-	0,9	6,5	1,6	0	0	0	0
Sage leaves	403	411	451	684	338	416	341	471	455	264	148
Thyme leaves	4814	2728	2235	3157	2440	3496	3692	2963	2793	1785	177
Cone of Semen Pini	267	426	418	231	541	907	1471	1302	830	995	209
Linden blossom	3	5	28	6	7	3	14	18	20	4	1
Rosemary leaves	434	398	450	365	170	238	238	599	453	193	0
Sumaci leaves	45	25	19	93	48	167	76	24	45	112	0
Cherry laurel leaves	10	67	73	50	38	31	32	6	4	29	0
Rockrose leaves	534	152	38	214	251	292	1186	910	1008	529	112
Carob fruit	674	530	644	116	12	15	82	65	63	39	0
Chesnut	259	160	350	88	283	318	450	444	97	3	2,6
Myrtle leaves	4	20	22	16	15	16	59	293	423	1014	31,4
Jew's Myrtle roots	120	134	214	90	197	353	126	143	128	28	1,2
Oak Cuppula	41	-	144	63	12	10	0	8	51	0	0
Heath	362	-	130	5	-	10	14	0	0	77	457
Braken	57	-	8	0,4	32	74	5	42	58	42	0
Snowdrops	56	4	3	18	24	4	23	26	65	18	8

Eastern blue	15	11	12	5	4	12	9	15	31	15	0
Sawbread	29	37	42	70	67	90	94	63	46	119	77
Winteraconite	14	8	6	5	1	12	2	5	6	7	7
Mushrooms	33	9	65	30	11	20	64	326	63,5	26	0
Others(Moss, Cons, vicum album and beech leaves, branch)	688	5107	7853	6275	14215	4688	8159	6934	4533	67111	39528
Other tuberus	15	-	15	11	84	126	47	54	12	36	30
TOTAL	**11307**	**17600**	**25955**	**22930**	**28679**	**18783**	**28042**	**30749**	**25793**	**86625**	**52191**

Source: *General Directorate of Forestry*.

3. Marketing and Information Collecting Systems and Market intelligence

As mentioned above, nearly all national forest are under the management of state and round wood produced from state forest are marketed by enterprises belong General Directorate of Forestry. There are three sales kinds which are auction sales, allocated sales and discounted sales. Most of industrial round wood are sold by auctions whereas most of fuel wood sold for discounted price. The share of auction sales is about 60% in industrial wood and %12 in fuel wood. The share of auction sales is higher in term of sale value and it is about 73% in industrial wood and 40% in fuel wood. Before auction, estimated prices are determined by GDF but the highest price offered by clients during auction is became sale price. In other word pricing is made by client and market. Allocated sale is a kind of sale that a certain amount product buying right is reserved for some company or some other client with certain price before harvesting. After harvesting, the sale processes are completed. For this kind sale, prices of product are determined by GDF according to market condition and the latest auction sales result. This kind of sales are done generally to panel and pulp industry or government institutions. Discounted sale is a kind of sale that round wood products are sold to some person who has some legislative rights at very modest prices such as harvesting const or harvesting cost plus tariff cost[2].

Market information and data collection and dissemination duty is given to State Institute of Statistics under the Prime Ministry Republic of Turkey but data related to raw forest products is collected and evaluated by OGM than some of them, which are necessary, is given to State Institute of Statistics. All other market related data and other information collected directly by State Institute of Statistics.

GDF have special section in Harvesting and Marketing Department for market intelligence. This section monitors round wood production, storage and sales of GDF and market developments. Besides, collect and analyze all information and data can effect forest product and forest industry product markets and makes estimates for future market development. These estimates and analyze are used for making harvesting and marketing strategies and politics.

Forest industry products are marketing by private company and small enterprises. Big market chains are insignificant. Wood based panel industry and partly furniture use agents system. Retail trade is the most common way. Prices are determined by free market condition.

The wood promotion is new advertisement is done by relatively bigger company. Marketing education is university level. Market restriction such as production export and import bans and other tariff or non-tariff restriction is minor except some plant healthy measures for timber. The only foreign prohibition is about Walnut, cheery, mulberry, pear, convex, badger, plum, elm and linden tree. These species round and primary processed wood products forbidden considering their fruit and nuts are more valuable by offer Ministry of Agriculture. On other hand there are some restriction about some endangered non wood products production and trade.

[2] Tariff is a modest price paid by GDF as the share of Turkish treasury