A Report on Legal and Illegal Timber Trade of Mongolia
World Bank/WWF Alliance Project, 2002

Introduction

By 2000, Mongolia's total forested area or forest fund[1] consisted of 18291.8 thousand hectare areas including 12.9 million ha of closed forest which covers 8.1 % of the total land mass of Mongolia . Forested area will be covering 10.5 million ha, which is 6.7 % of total land area excluding saxaul stand (*Haloxylon ammodendron*), shrubs and willow,

The MNE estimates that the area of exploitable forest to be somewhere between 5 and 8 million ha. During the 1980s, the former Soviet forestry specialists has recommended an Annual Allowable Cut (AAC) of 2.5 million m^3. The official statistics on timber harvests over the past 15 years show a correspondingly dramatic decrease in harvest levels from the highest of 2.24 million m^3 in 1995 to just 464.4 thousand m^3 in 1999. But, export of timber products, especially sawnwood has been dramatically increased after the liberalization of foreign trade in 1996. A review of major import and export timber trade flows to and from China shows that Mongolia is listed as the fourth largest exporter of sawnwood to China. In 1998, 265,249 m3 of sawnwood has been exported to China, which represents 15.7% of its total imports. This raise of timber export has a significant negative impact to Mongolian forest resources. With pressure from public and WWF Mongolia, the Government of Mongolia has adopted a new export tax law in 1999, which raised export tax on timber up to approximately $US150 per cubic meter. Therefore, timber export from Mongolia is supposed to be stopped. However, the increased demand for timber products in China has increased export of timber from Russia through Mongolia. Moreover, it is likely that a significant amount of timber has been exported illegally to China.

Therefore, World Bank/World Wide Fund for Nature Alliance funded a project to examine the status of legal and illegal timber export from Mongolia, including re-exporting Russian timber, and its social and conservation impacts with a view to incorporating its findings in the imminent World Bank Country Assistance Strategy for Mongolia.

WWF Mongolia should lead this activity, in cooperation with the Ministry of Nature and Environment, Customs Authority of Mongolia and WWF China and Russia Programme Offices. Expected outputs of the project were:

- Produce an analytical report that shows the overall pattern, scope, and structure of legal and illegal timber trading in Mongolia to the neighboring countries.
- Disseminate the report and finding through special PR campaign, public hearing, discussion with decision-makers.
- Incorporate the findings and recommendations in forestry strategy of Mongolia, including the National Forestry Programme, World Bank Country Assistance Strategy, and WWF Eco-regional Conservation Strategy in Mongolia.

Despite the mission of the project that should concentrate on export and re-export of timber, the study has concentrated more on illegal logging and domestic trade. This is due to increasing domestic demand on timber for the last years and high tax on export has been negatively influenced on illegal logging. Therefore, this report focused widely on domestic

[1] The forest fund shall consist of areas covered by forests including all species of trees and scrub, replanted forests and saxaul, MLF §4.1, 1995

trade and as well as on export. In addition, during the project period, there has been produced video materials and broadcasted on National TV nation wide.

Mongolian Forest Resources, Current Condition and its Ecological Features

As it was stated before, total forestland of Mongolia [2] is 18291.8 thousand hectare including 12.9 million ha of closed forest which covers 8.1 % of territory. It would be , some 10.5 million ha, which is 6.7% of total land area, excluding saxaul stand (*Haloxylon ammodendron*), shrubs and willow. The total forest stand stock equals to 1.4 billion cubic meters with total annual increment of 12.0 million cubic meter. (The National Programme on Forest, 2001) The most common tree species' are larch (*Larix sibirica*), Siberian pine or cedar (*Pinus sibirica*), Scotch pine (*Pinus sylvestris*), and birch (predominantly *Betula platyphylla*).

The northern forests are part of a transitional zone between the Siberian taiga forest (boreal forest) to the north and the grasslands to the south. The forest of the north typically grow on mountain slopes at the altitude of 800 - 2,500 meters above sea level. *Aimags* [3]in the northern and central parts of the country that contains most of these boreal forests are Hovsgol (35.475 km^2 of forest), Selenge (22.256 km^2), Tuv (16.268 km^2), Bulgan (15.520 km^2), Khentii (14.840 km^2), Arkhangay (11.654 km^2) and Zavkhan (9.900 km^2).[4]

The southern and south-western parts of the country are dominated by arid forests and shrub lands. The last estimates of species composition for the Gobi area listed 90% coverage and 10% *Tamarix spp* (James R Wingard, 2001). Saxaul and shrubs are vital for the survival of the region in general being as the protective mass against erosion and desertification.

According to their basic functions for ecology and economy, the forests are subdivided into:

1. Strict zone forests - about 48.2 % of the forestland. These forests are sub-alpine forests in general and also pristine and conservation zone forests of Strictly Protected Areas and special zones of the National Parks[5].

2. Protection forests – 45.0 % of the forestland. Forests of remaining zones of the Protected areas belong to this category, in addition to green belts of settlements, prohibited strips, saxaul forests, oases, small patchy forests covering up to 100 hectares and forests at slopes greater than 30 degrees.

3. Commercial forests – 6.8 % of the forestland. These are forests used mainly for the production of wood and timber.

Ecological Features of Mongolian Forest

The boreal forests of Mongolia are distributed in the transition zone that stretches between the southern edge of Siberia's vast taiga forest - the largest continuous forest

[2] The forest fund shall consist of areas covered by forests including all species of trees and scrub, replanted forests and saxaul, MLF §4.1, 1995

[3] Aimag is a biggest administrative unit. Mongolia consists from 21 aimags.

[4]

[5] Report on current condition of Mongolian Environment, 2001, Ministry for Nature

ecosystem on earth, and the Central Asian dry steppe – important factor to stop the invasion of the Central Asian Desert.

Remaining distribution of Siberian pine forests on the top of large mountain ranges, spruce forest in cold areas and permafrost along the river valleys show that h umidity level decreased and gradually warmed since the beginning of the Sub-Atlanta age. The remaining forests in the steppe region show natural decline of forest distribution from the south to the north. Global warming effects might be accelerating this process.

According to the human impact survey on forest ecosystem during the last 100 years, 40 per cent of all the forest has been impacted at some level. 684,000 hectares of forest has not been regenerated after the forest fire and 250,000 hectares after clear-cut. Meanwhile 1,737,000 hectares of coniferous forest has been replaced with birch and poplar, 159,000 hectares are converted into the non-forest ecosystems[6]. Given the fact mentioned above, it should be considered and taking into account that the southern boundary of Mongolian forest is moving northwards every time, when unsustainable harvesting occurs.

Current situation

In the 1950's the Government of Mongolia, following the Soviet model, had established 12 forestry state enterprises in several of the northern-central *aimags* and settled workers ('forestry villages'). For intensification chain mechanism for transporting the timbers and electric sawmills were introduced. These sawmills started clear-cutting the forest and for some years they used to cut up to 2 million cubic meters of timber annually[7].

In terms of age structure, Mongolia's forest is mostly old growth forest that is distributed in taiga belt with high soil erosion risks or on steep mountain slopes, which are inaccessible with the current techniques . The sawmills that was in exploitation in earlier years of forestry practices have used forest resources of accessible areas as much as possible given the capacity of their equipment and transportation possibilities during the last 20 years.

Between 1940 and 2000, in total 43.8 million cubic meter round wood were harvested from more than 320,000hectare areas in addition to about 392.5 thousand ha were affected by forest fire and 101.1 thousand ha of forest area were damaged by insects and pests since 1980 respectively. Only between 1996 – 1997, in total 5.0 million ha area affected by fire including nearly 500 thousand forests have completely burnt[8]. Over the last twenty years, forests decreased by 1.2 million ha (a deforestation rate of 60,000 ha per year)[9]. The major causes for forest degradation and deforestation are fires and insect pests, but often as secondary damaging agents. Over 90 percent of these fires were human caused.

The absence of an effective forest administration is also expressed by the lack of an effective fire management and insect control system.

Institutional Framework of Forest sector

Until 1989, the Ministry of Forestry and Forest industry (MFFI) has managed Mongolia's forestry and forest industry. During this time, the commercial aspects and the restoration and protection of forests were divided between two sectors within the same national level organization. The local level was basically the same as the national comprising

[6] Dr.G.Tsedendash, Mongolian Forest and its ecology, unpublished, 1998

[7]

[8] The National Programme on Forestry, 2001

[9] Dr.G.Tsedendash, Mongolian Forest and its ecology, unpublished, 1998

two components, one that handled the forest industry and one for protection of forest resources. The resources associated with the forest territory were centrally managed which meant that even rangers in the field had powers independent from local governors.

In 1990, these separately conceived components of forest management were physically divided between two ministries. The responsibilities for protection, permission for logging and reforestation were transferred to the Ministry of Nature and Environment (MNE).

Forest industry, especially wood processing questions became the domain of the Ministry of Food, Agriculture and Industry. This Ministry was later split into two separate ministries - the Ministry of Food and Agriculture and the Ministry of Industry and Trade (MIT), the latter of which retained responsibility for the commercial aspects of forests.

This split in national level management carries with it a dramatic reduction in staff and expertise. At present, the MIT maintains an Industrial Development Department responsible for all industries and has currently only one person on staff responsible for all forest-related matters. The MNE maintains a small forest bureau with 5 professionals.

Enforcement and implementation of forest (and, in general, environmental) legislation and regulations rest with the Environmental Inspectors. At the national level there are State Senior Inspectors, attached to the Environmental Protection Agency under MNE. However, most Environmental Inspectors are nominated at the *aimag* and *soum* levels, where they work under the direct authority of the respective governors. A transparent system of 'checks and balances' in the forestry administration is absent at present, especially at the local level.

The forestry administration system at the *aimag* level and below is changing with decentralization and privatization efforts. Each *aimag* initially had a forestry organization, but soon after decentralization these organizations were transformed into state-owned business entities and few years ago fully privatized. They are now so called "professional forestry organization". The *aimag* governor is responsible for the system of harvesting licenses and law enforcement through the environmental Inspectors. Each *aimag* has currently established an Environmental Protection Agency with a few numbers of environmental Inspectors supervising environmental laws including the forest law. The inspectors and rangers in the field, who bear the principal responsibility for implementing environmental laws, policies and regulations have received little training and moreover, have few resources at their disposal. In fact, most soum inspectors, unless they have their own vehicles, are not able to visit the area that they are supposed to cover.

Another obstacle to successful environmental management from the top-decision-making level down, is the fact that economic, political, and social incentives *not* to enforce the law are more stronger than enforcing the law. **There is a pressing need for transparency to clarify and openly distinguish between the interests and roles of private 'for-profit' enterprises (forest plantations, timber operations, forest industries, forest based services) and 'not-for-profit' authorities (public administration and enforcement of laws) and civil society organisations**.

The weak institutional framework of the forestry administration prevents the successful implementation of the laws, regulations and policies that do exist. Policy instruments related to forest management and protection should be strengthened and streamlined. The technical and institutional vacuum has the following characteristics:

- Lack of logging planning, and effective forest management, has made operations improvised, follow no rules and go unrecorded;
- Equipment and extraction methods available are suitable only for clear cutting and not adapted to the selective logging;
- Skills, training standards and work safety are eroded as training centres have been closed and newly established companies are not capable of filling the gap. This has serious implications for the future of forests. International experience demonstrates

clearly that a competent workforce is indispensable for sustainable use and management of forests.

Legal timber harvest

Comprising of more than 50 pieces of legislative acts (laws, resolutions, orders, rules etc.) Mongolia's package of forestry-related laws and regulations is perhaps the most detailed and complete of all its environmental laws[10]. Most of this legislation deals with timber harvest and reforestation.

According to the Mongolian Law on Forest (1995), the State has the power to grant possession[11] of Forest Reserves to the municipalities of Capital City, Aimag and Soum. Their Citizen Representatives *Hurals*[12] have the power to grant the use of forests and non-timber products to citizens, economic entities and organisations as well as the use of forests for certain periods, fees, and conditions based on the contracts or licenses. According to this article of the law, forest administration is fully decentralised and the *soum* governor is empowered to grant licenses and concessions, respectively to individuals or economic entities, and collect the respective fees. Control is also under the local authority. But in terms of determination of allowable harvest volumes, it is a very top-down process. First, the MNE determines the allowable harvest for each Aimag and Capital City on annual basis. Then, their Citizens' Representative Khurals decide on the permissible cut within limit determined by MNE. Finally, the Soum Khural decide on the permissible cut within their territory based on the Aimag Khural decision.

Bids to timber harvest for commercial purpose by individual persons and entities are to be submitted to the Soum and Capital City governors. These governors make decision within permitted limit by Khural and under consideration 1) the economic efficiency of the activity, 2) harvesting technique, processing technology and level of use 3) available funding for protection and regeneration measure, and 4) evaluation by Certified professional organisation.

The regulation on the lease of forest resources was adopted by the Mongolian Government Resolution No. 125, June 22,1998. The regulation on forestland lease for long term provides that an economic entity or organisation that undertakes logging, wood processing and rehabilitation activities for the long term can use a certain part of the forestland. The term of the lease will be for 15-60 years with the possibility of extension not to exceed 40 years. Timber harvests between 1995- 2000 have been carried out according to this procedure.

The MNE estimates, the area of exploitable forest to be somewhere between 5 and 8 million ha. During the 1980s, the former Soviet forestry specialists recommended an Annual Allowable Cut (AAC) of 2.5 million m^3. Foresters estimate this at about half the natural annual growth rate of the forests. However, as mentioned above much of these forests in protected or otherwise inaccessible areas. This has resulted in a concentration of cutting in the accessible places while the remainder is left relatively untouched. Again, most of the logging companies operate along the railway in the northern part of Mongolia, especially in Selenge *Aimag*, which produces 60% of the timber volume.

[10] James R.Wingard, 2001, Compendium of Environmental Law and Practice in Mongolia

[11] The concept of forest possession in the Mongolian legislation is sometimes erroneously translated into English as ownership or tenure, whereas the term 'lease' would be more appropriate.

[12] *Hural* is comparable to parliament. There are *hurals* at national, *aimag* and *soum* level. The *Citizen Representatives Hural* is the parliament at the aimag and *soum* level.

The number of official wood industry related companies and organizations have been reduced significantly. At the end of 1989, each *Aimag* had an average 18 forestry units **(**324 throughout the country), 16 logging organizations (288), 6 wood processing plants (108) and 5 carpentry stations (90). By 1996, this profusion wood related organization had shrunk to 49 sawmills and furniture factories[13].

In order to identify current situation of logging practices and enforcement of relevant laws, we tried to make a compared analyses on logging practices by using official informations of the National Statistical Agency, Ministry of Nature and Environment and local administrative bodies of relevant aimags and soums. Additionally, in order to determine illegal logging there has been collected available data on timbers transported by railways in the last five years. For these purposes, the study has included Selenge, Tuv and Darkhan-Uul provinces, territories of which support the main areas for logging.

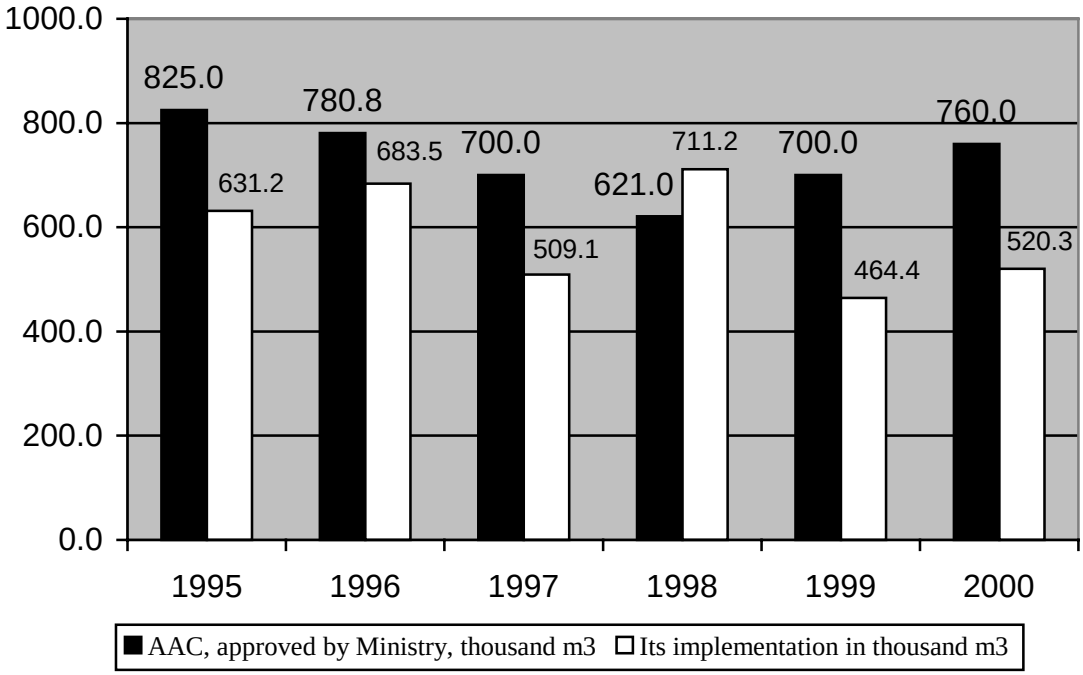
Unfortunately, it was impossible to make an entire assessment covered year of 2000 due to unavailability of documents on timber transport information of 1995, 1996, 1997 and 1998 in some main railway stations, including Tunkhel, Eroo, Mandal with reason that the documents were already destroyed and transferred to archive.

In addition, it was also impossible to find any reliable data on the volume of timbers transported by trucks.

The official statistics on timber harvests over the past 15 years show a correspondingly dramatic decrease in harvest levels from a high of 2.24 million m^3 in 1995 to just 464.4 thousand m^3 in 1999. According to the National Statistical Agency, Ministry of Nature and Environment, had given logging permits for 4,386.0 thousand m^3 in the past six years nationwide, meaning that on average of 731.0 thousand m^3 timbers were allowed to harvest for each year. But, as showed in implementation performances, total 3,519.7 thousands m^3 timbers were harvested on average, logging was lower by 144.4 thousand m^3 than approved AAC. It seemed to be that the excess of timber harvest over approved maximum limit in 1998 (see Figure 1) was resulted in an amendment of law on impose a export tax on raw wooden materials (round wood, lumber and sawn wood), being abided from January 15, 1999 by the Parliament of Mongolia.

[13] James R.Wingard, 2001, Compendium of Environmental Law and Practice in Mongolia

Figure 1: Maximum limit of logging, approved by Ministry of Nature and Environment in period of 1995-2000, and its implementation



In general, Citizen's Representative Khurals of the aimags are seemed that they were tend to approve AAC considerably lower than the AAC determined by the Ministry. Decision-makers of aimag with more forest resources proposed to decrease AAC for household consumption and firewood while aimag with less forest resources suggested increasing the limit. The Ministry's officials have explained this phenomena that fees and taxes of AAC is reflected in the budget planning so that local autorities are interested to decrease volume of AAC in order to avoid creation of a budget deficit. Because they were not able to collect 100 per cent the fees and taxes of harvested timber[14].

As shown in timber harvest of Selenge aimag, the Ministry of Nature and Environment determined the AAC to be 242 thousand m^3 in 1995, but it gradually decreased the limit up to 100 thousand m^3 till 1998. This is an average volume of AAC which annually approved by the aimag's Citizen's Representative Khural. According to the official statistics, volume of logged trees is quite lower than AAC approved by the Ministry of Nature and Environment and aimag's Citizen's Representative Khural. Only 1998, official harvested timber volume is two times more than AAC. This probably has been caused by efforts to export far more timber before the export tax is in force. Another interesting fact is that the given permits by aimag authorities are much lower than actual registered harvest.

[14] Justification for AAC for 2002, Minister's order Nr. 18, 22 January 2002

Table 1: Maximum limit of logging, approved by Ministry of Nature and Environment and the Citizen's Representative Khural of Selenge aimag, and its implementation (Source: Ministry for Nature and Environment, and Governor of Selenge aimag)

Year	AAC by MNE in m^3	AAC by Aimag m^3	Total harvest m^3	Given permits to harvest m^3
1995	242,000		106,900	
1996	200,000		146,600	32,714.4
1997	180,000	95,000	96,000	68,917.1
1998	95,000	93,500	219,300	58,314.1
1999	100,000	100,000	95,500	44,590.2
2000	120,000	120,000	43,700	53,250.1

During the survey conducted in Selenge aimag, we observed that the technical and technological level of logging and wood-processing enterprises had been drastically reduced and mostly converted into many small economic entities. Along the main access roads and railways, where forests are more accessible, the forests disappear at an alarming rate as a result of the anarchic exploitation of timber. The economic benefits forests could provide are wasted. These small economical entities and individuals preparing mostly "balks" (rough cut posts with a size of 0.15 x 0.15 x 4 m similar to railway sleeper) from those parts of logs that can be easily processed using the primitive sawmills. The amount of remaining dead wood (tops / branches) left in the forests, therefore increasing the risks of fires and insect pests. As an alternate, by selectively taking out logs of medium size in diameter, a much higher future profit is foregone. There exists a gap in controlling the location of logging and the amount of extracted timber, and illegal logging is out of control.

Due to logging carried out by too many small economical entities and individuals, the logged areas are being pounded, many roads are being formed and the forest soils are being under more destruction. So there is absolutely new requirement to apply on soil rehabilitation in forested areas, besides carrying out reforestation measures in logged areas, is emerged.

More people including decision-makers and forestry authorities tend to assume that burnt trees can be cut down. Therefore, most permissions for harvest is given in burnt forest area and this process is continuing. It is obvious what kind of impact this practice can add up to already badly deteriorated forest ecosystem. According to research conducted in the eastern Khuvsgul, the harvested area, in which logging occurred after the fire still had no sign of rehabilitation after 13 years. Even though trees are dead, they give shelter of wind, and reduce loss of the humidity in soil. Trees burnt are natural incidents. Therefore, if the burnt trees are left naturally, they will be rehabilitated naturally. This was proved by research conducted in the Khangai Mountain Ranges in 1978.[15] Therefore, one crucial issue of forest management is studying natural regeneration process and conducting forest management activities in harmony with this process.

Illegal timber harvest

Above listed figures did not include an estimate of illegal harvest, which has in recent years taken on enormous proportions. The situation in the western Khentii, a prime forest region, is a virtual free-for-all where anyone with the basic equipment can and is harvesting timber for all purposes. Although we do not have complete information, some standard statistics highlight the potential dimensions of the problem.

[15] Dr.G.Tsedendash, 1998, Forest Ecological Features of Mongolia, unpublished paper

According to official information, violation on forest law is an average of 40 per cent of total violations on environmental laws. For Selenge aimag, volume of confiscated timber in past four years is almost doubled and this performance is stabilized for the moment. This information is only about officially registered illegal harvest, but it is very difficult or almost impossible to determine volume of illegal harvest. We have tried to determine an approximate volume of illegally harvested timber from Selenge aimag alone through a way to determine timber volume transported by railway. It should be noted that many difficulties to overcame and long time had to spend in implementing this task. From Selenge aimag, timbers transported from railway stations of Sukhbaatar, Eroo, Zuunkharaa and Tunkhel. Following tables show total volume of transported wood products by railway for every year. In order to produce these forest products at least double size raw logs had to be harvested.

Table 2: Total volume of logs harvested from Selenge aimag (official) and total volume of forest products transported by railway (without data from Zuunkharaa and Tunkhel in period between 1995 - 1998)

Year	Harvested m^3		Transported by railway m^3	Confiscated m^3
	Reported to MNE	Given permits by aimag		
1995	106,900		85,959	
1996	146,600	32,714.4	164,669	1,889
1997	96,000	68,917.1	155,745	15,479.6
1998	219,300	58,314.1	107,556	9,115.6
1999	95,500	44,590.2	198,717	6,864.8
2000	43,700	53,250.1	361,753	5,491.7

Table 3: Forest products transported from railway station Sukhbaatar

Year	**Round wood**		**Sawn wood**		**Balks (Lumber)**		**Fuel wood**	
	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon
1995	8055	179	21280	304			1932	46
1996	540	12	56000	800			3150	75
1997	810	18	62930	899			4788	114
1998	180	4	33670	481			20160	480
1999			7910	113	49360	617	19362	461
2002			1610	23	102800	1285	20202	481

Table 4: Forest products transported from railway station Zuunkharaa

Year	**Round wood**		**Sawn wood**		**Balks (Lumber)**		**Fuel wood**	
	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon
1995	225	5	13090	187			3693	88
1996	675	15	22400	320			2688	64
1997	945	21	10010	143			2940	71
1998	270	6	10850	155			3738	89
1999	360	8	140	2	20320	254	1806	43
2000	630	14	560	8	16800	210	4074	97

Table 5: Forest products transported from railway station Eroo

Year	**Round wood**		**Sawn wood**		**Balks (Lumber)**		**Fuel wood**	
	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon
1995	**Not found**							
1996								
1997								
1998								

1999	45	1	7280	104	5360	67	420	10
2000	225	5	350	5	6320	79	546	13

Table 6: Forest products transported from railway station Tunkhel

Year	**Round wood**		**Sawn wood**		**Balks (Lumber)**		**Fuel wood**	
	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon	Volume m^3	Wagon
1995	**Not found**							
1996								
1997								
1998								
1999								
2000	1800	40	24220	246	13360	167	6006	143

The information of timber transportation in railway stations such as Tunkhel and Zuunkharaa were not found for period between 1995-1998. However, it is still possible to make following conclusions based on the information, we got from railway stations.

- Since enforcement of export tax on wood, and wooden materials in 1999, there has been observed increase in transportation of balks, which is mostly used for domestic construction material.
- Volume of timber transported by railway is more than volume of AAC in territory of the Selenge aimag, including almost 2-3 times more timber being transported in past two years (1999, 2000). It means that more than this volume has being illegally harvested if volume of timber dedicated to domestic consumption of the Selenge aimag itself and timber being transported by trucks are included.
- Increased demand on construction materials in domestic market is opened a door for illegal harvest in the last years.

In order to address at the local level the problem of forest degradation, it has been introduced several measures like timber certification of origin, community forestry and amendment in forest law.

In order to control and monitor logging processes e.g. harvest, transportation, selling and processing, there has been introduced a timber certification of origin since 2000. According to the rule of the certification, Environmental Protection Agency is responsible for organisation of printing of the certification, delivering to local areas and to register it. The logging companies will issue the certification, which is valid within one year and should give this certification to the log-buyer when selling or transporting the log to other areas. Environmental inspectors, traffic police and transportation organisations should control and monitor of issuing of certification and validity of certification. When we were conducting a questionnaire on how the certification process being implemented in the practice, then the replies given by stakeholders were identical:

- A lack of information and understanding on certification among people;
- Weak/or almost impossible to control all processes e.g. harvesting, transportation selling and processing;
- Certification process is not transparent and it may become sources of bureaucracy and corruption;
- Certificates are issued before the permits are given.

In order to improve forestry management at the local level 'community forestry' was taken up as a new approach in Mongolia. It has been most simply defined as ... 'the control and management of forest resources by local people. In other words, people will no longer be considered as passive recipients of forest management wisdom and action (or inaction) from above and outside the community, rather they will be engaged as active participants and decision-makers in local forest resource management and development'[16].

The old forest policy adopted in 1998 through Government Resolution No. 122 (National Forestry Action Plan) and No. 125 (On Use of Forest Land by Contract) has been interpreted as to include also community forestry development aspects. A strong incentive for 'community forestry groups' has been the right to receive remuneration for forest rehabilitation works, such as the establishment of tree plantation or natural regeneration. The compensation for the work is paid from the national Reforestation Fund. The groups would also be granted long-term user rights to collect and sell fuel wood.

In practice, the concept of community forestry has stirred controversy in Mongolia. Unlike other countries, where community forestry has shown its potential for democratic, local level, productive and sustainable forestry, the concept of 'community' for forestry is not familiar for Mongolia – there is not even a special word in the Mongolian language that would rightly catch up its meaning. Most villages have been created under the socialist system of state-organised collective agriculture, forestry and industry. No social cohesion is found nowadays in these settlements. Outside the villages and towns, the rural population consists mainly of nomadic herders.

A recent assessment[17] of the fresh experiences with 'community forestry' showed that in reality there is no distinction between this approach and concession forestry. The legal conditions for both are the same. Groups need to be registered as economic entities, like concessionaire companies. Furthermore, the 'community forestry groups' all show the phenomenon of a single strong leader with other group members behaving as employees. The main difference seems to be that 'community forestry groups' are supposed to be active in forest rehabilitation, whereas the purpose of concessionaires is immediate profit from forest exploitation. There are no examples; yet, of 'community forestry groups' being granted a concession for commercially exploiting an area of forests.

Might be therefore, in new forest policy adopted in 2001 by the Government Resolutions No. 284 (National Forestry Programme) and No. 125 (On Use of Forest Land by Contract) there has not been mentioned about promotion of community forestry. The government will reconsider the regulation of forest concession to the companies and community forest group[18].

In conclusion, there is not yet a real basis for community forestry in Mongolia. The enabling context needs to be improved by creating more transparency and participation in granting of the user rights. A long-term strategy needs to be agreed at the local level for the conservation and utilisation of forest based resources in which benefits for the local population is the principal orientation. Whereas government policy regarding community forestry in other countries meant finding appropriate solutions following the initiative and demands of local groups, in Mongolia there is no real group initiative and therefore leadership of government is required to shape local level forest-based natural resources management.

[16] Source: "Report on Social Forestry Development in Mongolia – Feasibility Study". Study submitted to UNDP and MNE by World Vision International Mongolia, September 1997.

[17] Field assessment during project, December 2001

[18] Action Plan for Implementation of National Forestry Programme, 2002

In order to improve the forest management, the following major amendments to the law on forests have been applied in 2000:

a) Only Soum's Citizens' Representative Khural has the power to grant the use of forest resources to economic entities and organisations for certain periods, fees, and conditions based on the contracts or licenses. However, **individuals have to establish a community in order to get this user right.**

b) The MNE determines the allowable **harvest of industrial timber for every economic entity and organisation,** and the allowable harvest of fuel wood and timber for household use for each Aimag and Capital City on annual basis.

c) In utilisation zone forests, **economic entities and organisation with professional licences** that was issued by MNE may harvest forest for commercial use. This amendment does not allow individuals to cut trees for commercial use.

d) Decision making level for harvesting is differentiated between commercial and household or own use. **The central government e.g. MNE shall make a decision on the trees to be harvested at the request of licensed economic entity and organisation under the consideration of certain conditions.**

According to this amendment, rights for forest resource ownership and management remained in hands of local administrations. But the Ministry of Nature and Environment was entitled to determine AAC for commercial use and to select economical entities to harvest timber for commercial purpose. This provision might be strengthening centralization process, imbalance the power distribution and increase weakness of forestry entities at the local level. According to this article, bids to timber harvest for commercial purpose by economical entities are to be submitted to the Ministry of Nature and Environment, and the Ministry shall determine AAC for commercial purpose for each entity. However, this year, the Ministry allowed 39 thousands m^3 timber for commercial purpose and announced in newspaper an open bidding among economical entities. But there is no any provision in the law to give permission for commercial harvest through the open bidding. Additionally, this year's AAC has not reflected increasing domestic demands on forest products for commercial purpose. In 2000, forest products with a total volume of 360,000 m^3 have been transported by railway only from Selenge aimag to Ulaanbaatar for commercial purpose. (see Table 2) It is too early to say that this amendment of the law will reduce the illegal logging.

Timber export

One of the project objectives was to determine real timber volume of export, re-export, and transit from Russia through Mongolia to China and to reveal whether there is wood smuggling from Mongolia. Dramatic increase of timber flow from Russia to China through Mongolia particularly in recent years has created a suspicion among the public that there might be Mongolian originated timber in the transit goods. The project also aimed at determining how the law on imposing export tax on timber products affected export of Mongolian forest products. In order to conduct a true survey, various kinds of information sources such as official information from National Statistical Agency, General Customs Department, railway stations at border point in Sukhbaatar and Zamyn-Uud, relevant organizations of Russia and China.

Market situation in China:

Therefore, it is important to know what changes took place in China's forest policy and how it is affecting timber market and demand in supplying countries.

Major forest-related policy reforms in China include: Grain for Green, Natural Forest Protection Programme (NFPP), Trade policy in forestry, Investment policy in forestry, Construction and residential Housing Reforms, and Western Development Policy. All these policies have impact on China's timber market and timber trade. The NFPP, which aims to protect natural forest resources, has the most impacts on China's timber production. While NFPP has mostly impacted timber supply, housing reforms and western development strategy have increased and will continue to increase wood demand. Both reductions in timber supply and growth in wood demand support rapid growth in forest product imports of China. Timber imports are expected to grow from about 5 to 40-50 million m^3 in 2000 to fill the gap between domestic timber production (60 million m^3 after the ban) and estimated demand (120 million m^3). In addition, liberalisation of trade in forest products through the entering China in WTO reinforces this growth too.

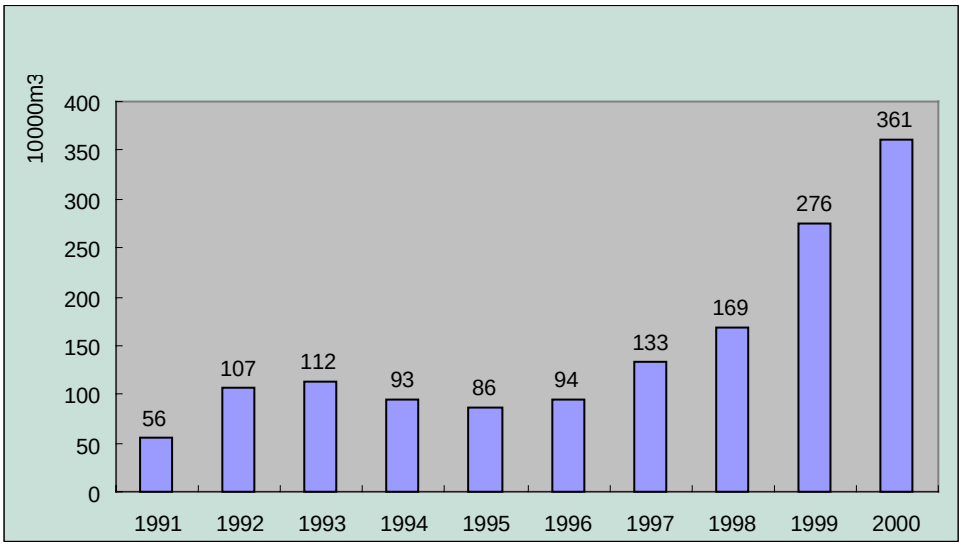


Figure 2: China's Log import 1991 – 2000 (Source: WWF China Programme Office)

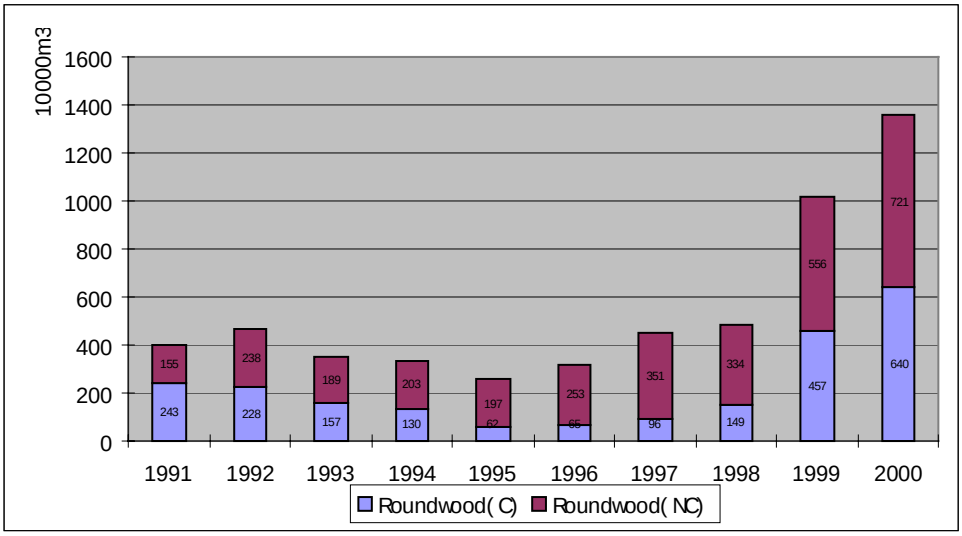


Figure 3: China's lumber import 1991-2000 (Source: WWF China Programme Office)

Import of wood products increased significantly in volume in both 1998 and 1999 but 1999 had more dramatic increase. However, import changes are quite different for different product categories. Log imports quantity grew both in 1998 and 1999, but 1999 has real surge-more than doubled. Both value and volume of imported sawn wood increased significantly in 1998 and 1999. Plywood and other panels are the only categories that experienced decrease in imports in 1999.

Although it is not yet possible to quantify the impacts of Chinese forest policy reforms on exporting countries, following preliminary conclusions can be drawn.

- Do not understand For the U.S. and European countries with good forest management practices, China's forest policy reforms benefited and will continue to benefit their economies.
- For the supplying countries with poor forest management, on the other hand, China's policy reforms in the forest sector, particularly the NFPP, could lead to large-scale forest degradation or deforestation, at least in the short run
- Pursuing short-term profit from exporting wood products to China may stimulate illegal logging and trade in those countries, which eventually harm their ecology
- High demand in wood products in China could be used as incentives for improving forest management and domestic wood processing industries of supplying countries if their governments set up appropriate policies

Legal timber export

Due to the political situation, the Soviet Union used to be the main trading partner until 1990. Entering the open market economy there was an initial boom in the export of unprocessed logs to China. The price paid for the raw material was higher than that the local processing industry paid.

Table 7: Export of timber products of Mongolia, 1995 – 2000 (Source: National Statistical Bureau)

Timber products	1995	1996	1997	1998	1999	2000
	Volume m^3	Volume m^3	Volume m^3	Volume m^3	Volume m^3	Volume m^3
Round wood	1,768	5	1,292	507	8,580	5,911
Sawn wood	44,838	104,622	168,697	268,125	38,288	2,539
Fuel wood	4,390	2,922	1,304	135	679	
Railway sleeper		45	172	80	235	478

Although export of round wood was prohibited in 1995, there still continued export of round wood until now. As shown in the survey, since 1995 when the export of round wood was prohibited, export of fuel-wood increased.

In Mongolian timber export, sawn wood used to play main role. Annual export of the sawn wood reached over 120 thousand m^3 in the middle of 1980s and then it gradually decreased to 45 thousand m^3 in 1995[2]. But the export of sawn wood sharply increased from 1996 and it reached the highest amount of 268 thousand m^3 in 1998. Sharp increase of sawn wood export had promoted illegal logging and public voices to halt the timber export started to be increasingly heard in mass media. An issue to increase export tax of wooden materials was discussed at parliament two times but the issue was rejected by votes of the majority. Open parliamentary meeting co-organized by WWF and a TACIS project in 1998 had a great success and in 1999 the government imposed an export tax of 150,000 *Tugrug* (about US$150/$m^3$) on logs and semi-processed wood, which *de-facto* has halted legal export. Unfortunately, it could not become a lever for further development of wood processing industries. It seems to have had a negative impact on quality and efficiency of wood processing. The national market does not value quality and at the same time the purchasing capacity of national consumers is very low. Subsequently, beams and timber board of poor quality dominate the market. Real incentives for the rejuvenation of the wood-processing industry are absent. Investment has been hampered by high interest rates of bank loans, although in the past few years these have dropped from a rate of 12 percent to 3 or 4 percent *per month*. In general, the sector lacks capacity for management and business planning**.**

The export tax on unprocessed wood was intended to gain some time and conserve the forest resources, but it seems to have perverted the incentives to the local market, which is served more and more by illegal logging practices which do not respect any sound forest management practices. However, the need for cash in Mongolia and the presence of a large, hungry market nearby (China) will sooner or later mean that these forests will be opened up, logged over and destroyed if the present context (especially the institutional) does not change.

Illegal timber export

It seems that there are only two ways for sustaining the illegal timber export: to pay smallest share of customs tax therefore bribing customs officials or to smuggle the wood as a transit goods from Russia to China through Mongolian territory by negotiating with relevant railway officials.

However, incomplete registration on re-export of transit goods by Mongolian companies from Russian Federation, in the General Customs Department disabled us to compare it with information received from Russian Federation. In addition, it was impossible to determine how much wooden materials are being exported to China from Mongolia illegally because of absence of again the registration of transit goods in the railway authorities. So, absence of transit goods registration and lack of control create an opportunity

for smugglers to convert Mongolian forest products into transit goods and it could be easily explained by considerable increase of volume of timbers from Russia to China through Mongolian territory by railway. During the last years, Russian-Mongolian and Mongolian-Chinese gateways Naushki-Sukhbaatar, and Zamyn Uud-Erlianhot became one of the three major points for timber flow from Siberia to China.

Table 8: Major timber routes from Siberia-REF to China in 5-year dynamics (Source: WWF Russian Programme office)

Gateways to China	**1996**	**1999**	**2000**	**% increase**
Zabaikalsk-Manzhouli	146,838 m^3	1,783,570 m^3	2,070,000 m^3	1417
Naushki-Erlianhot	11,778 m^3	933,569 m^3	1,511,000 m^3	12805
Pogranichnoye-Suifenhe	272,324 m^3	1,341,380 m^3	2,037,000 m^3	749

It is notable that at least official statistics of custom's authority confirm the presence of illegal trading. Table 9 shows timber export and export tax in 1999 and 2000. According to this document, unit price for round wood is 48.3 $US, for lumber (balks)- 69.1 $US and for sawn wood is 126.7 $US accordingly, but paid an export tax of approximately 136.4 $US per m^3 of each timber product. It is obvious that in order to make revenue from trading, it should be exported 3-4 times more timber products.

Table 9: Timber export and export tax in 1999 and 2000 (Source: General Department of Mongolian Custom)

Code	Forest product	1999			2000		
		Volume m^3	Value 1000 $US	Export tax 1000 $US	Volume m^3	Value 1000 $US	Export tax 1000 LC
4401	Round wood	678.77	32.8	92.6			
4403	Lumber (balks)	8580.43	593.2	1170.0			
4407	Sawn wood	38288.31	4851.3	5221.1	2539.41	321.8	346.3

The study has not determined direct relation between illegal logging and illegal trade. But Government resolution passed in 2001 to allow export of 250 thousand m^3 timber products with privileges of export tax will not be ruled out that it would promote the illegal logging and trade in nowadays when controls are weak and still better coordination between the related organisations is needed.

International Assistance in Forest Sector[19]

There are not many direct forestry projects in Mongolia supported by Donors/Assistance Agencies, even though there are forestry components in several non-forestry projects - i.e. such as those related to environmental and biodiversity conservation, parks management and disaster prevention.

United Nations Development Programme (UNDP)

UNDP/MNE project MON/96/004–'Support to Community Based Rehabilitation of Forest Areas and Disaster Management' was formulated after the fire disaster in 1996 and launched in December 1996 for six *aimags* with community forestry aspects

[19] This section used materials from UNDP proposal for pilot project " Capacity building for local level – forest based natural resources conservation and utilisation"

emphasised in Selenge and Arkhangay *aimags*. It continued until the end of 1998. The project aimed at strengthening national and local capacities for prevention and mitigation of natural disasters, especially forest fire. A key strategy for the project was the involvement and empowerment of the local community. Establishment of community forestry was one of the important purposes of the project.

UNDP has taken several other initiatives with respect to the forestry sector in Mongolia.

- Together with FAO, a proposal has been prepared for the elaboration of a National Forest Programme (NFP) for Mongolia, which should lead to formulation of sound strategic planning, policy and programmes in the forestry sector, adhering to the principles of Agenda 21, MAP-21 and the Intergovernmental Forum on Forest (IPF)[20].
- Together with ILO and FINNIDA, a project proposal on the development of a National Code of Forest Practices for Mongolia has been developed and is awaiting its implementation[21].

The Poverty Alleviation Project, funded by UNDP executes a micro-credit scheme in which also revenue-making opportunities from forest systems are being financed.

Food and Agriculture Organisation of the United Nations (FAO)
In the context of preparations for a National Forest Programme (NFP), FAO has supported the Government and UNDP through consultancies and made available draft proposals.
In addition to the abovementioned NFP project, FAO has prepared a proposal, together with UNDP, for a national level forest fire management project.

FAO Headquarters in Rome is currently assessing a proposal on 'Strengthening Capacity for Disaster Response and Forest Fire Prevention', to be implemented by the State Civil Defence Committee and the State Emergency Commission of Mongolia[22].

FAO has recently completed a regional project entitled: 'Support to the Reorientation of Forestry Policies and Institutions of Countries of Asia in Transition to a Market Economy' (GCP/RAS/158/JPN – funded by Japan) which ended in October 1999. This project has organised several seminars and conducted a research on issues related to public sector capacity building, private sector development and information sharing in the forestry sector. FAO intends to continue to offer its expertise to Mongolia in the areas of institutional strengthening; development of a 'Code of Conduct' for forest industries; certification of foresters; and training on forest management and operations.

GTZ(German Technical Assistance)
In providing assistance for forestry development in Mongolia, GTZ is a major player. Of particular importance in this context is the GTZ Project "Sustainable Use of Forests, Resource Protection and Training in the Forest Sector, Mongolia" (short: Sustainable Forest Management Project, SFMP). This project started recently

[20] Project budget (UNDP and cost sharing) US$ 77,025, duration 45 days, tentative start October 2000.
[21] Project budget is US$ 70,200, duration 15 months, tentative start October 2000.
[22] Proposed budget US$ 261,360 – starting date July 2000.

(duration of pilot phase 04/00-05/01) and has the objective to develop main procedures for improving forest management planning based on discussion and common agreement with the forest administration and the target groups. It builds upon the results of two other GTZ projects: "Nature Conservation and Buffer Zone Development" and "Integrated Fire Management". These projects under completion deal with several interrelated aspects such as: protected area management; forest utilisation possibilities in protected areas/buffer zones; forest fire protection and control; and visitor information on parks and protected areas. The project sites are in the Strictly Protected Area of Khan Khentii Mountain range and its bufferzone. The projects have undertaken some community oriented forestry activities in the Buffer zone on the Western slopes of the Khentii Mountain range.

JICA(Japan International Cooperation Agency)
Main areas of emphasis of Japanese assistance are economic infrastructure, agriculture and animal husbandry, prevention of national disasters, early warning system and basic human needs. In the forestry sector Japan's involvement is still limited.
The “Forest Resources Management Study in Selenge Aimag”, completed in 1998 and financed by JICA, aimed directly at forestry development. MNE has requested JICA for a technical assistance project to support fire protection over the area covered in their forest resource management study. However, at present, Japan does not seem to have any assistance funds earmarked for forestry.
Other Japanese organisations granted assistance in the forestry sector, e.g. Hyogo Prefecture with a small grant for reforestation in 1999 and 2000, and Kobe Steel Company Ltd. for reforestation in the years of 2000 and 2001.

The World Bank
Through IFC, the World Bank has made available credit funds for the wood industry in Mongolia. Credit would be granted to private enterprises provided that they would submit a business plan. It seems that this condition so far could not be fulfilled.

European Union - TACIS
TACIS has no specific forestry programme. Small financial contribution, however, was provided for a number of individual activities, mostly as one-time grant. These include planting trees in some *aimags*, cleaning of some fire damaged forests, purchase of equipment for forest fire protection, sponsoring of open parliamentary meeting on forest policy, conservation awareness regarding protection of endangered species, cross border programme on tree seeds with Russia and support to environmental NGOs. TACIS funds have been fully committed unto the year 2000. Any substantial assistance for forestry can be considered only after 2000. What happened with this one, did they consider it after 2000

United States
USAID support is aimed at improving commercial practices in Mongolia (as well as public administration and management, and government's monitoring capability) to promote economic growth; an example being the USAID Economic Policy Support Project. In the field of environment and land use, USAID has prepared an environmental profile of Mongolia, and a farmer to farmer exchange programme was planned. The farmer to farmer exchange programme is likely to include persons involved in wood harvest in rural areas.

United Kingdom
UK support to Mongolia is small, mainly for poverty alleviation, social development, nature and environment, and transition management. (Examples of projects: rehabilitation of street children; improvement of *ger* stoves). UK has also committed to support implementation of MAP-21. But resources are limited. UK-ODA however might be interested in the developments regarding forestry.

Other (possible) Donors
From the above it can be concluded that most of the assistance activities are in the interface of forestry and environmental conservation and very little has taken place within the core areas of forest management. All donor/assistance agencies stress the importance of forestry in Mongolia. There are only few donor agencies with offices in Ulaanbaatar. Some Western European and the Scandinavian countries are not present at the diplomatic level in Ulaanbaatar. Although their interest in Mongolian forestry is presently not known, experiences of these countries will be of relevance to Mongolia. Worth mentioning is that the Finnish company Jaakko Poyry had undertaken a study on forest industry development in 1995. Also FINNIDA has been approached to support the proposed project 'National Code of Forest Practices in Mongolia' to be started in 2000.

World Vision
World Vision has been involved as a subcontractor in the UNDP funded 'Support to Community Based Rehabilitation of Forest Areas and Disaster Management', primarily to develop and adapt the concept of community forestry for Mongolia. Under this project, World Vision carried out subprojects on: Participatory Learning and Action/Rapid Appraisal (PLA/RA) in community forestry development in selected communities. Baseline surveys and training workshops were conducted and community groups were organised. More recently, World Vision has prepared a Community Forestry project in Bulgan *aimag* and plans to implement here also an Area Development Programme.

Summary and Conclusion

Mongolia's total area is 156,6 million hectares with forested areas covering 18,3 million hectares, or just 8.1% of the total landmass. According to FAO statistics, Mongolia belongs to country with small forest resources. In addition,, the boreal forests of Mongolia are located in the critical zones for forest growth. Because they belong to transition zone forests from the southern edge of Siberia's vast taiga forest - the largest continuous forest ecosystem on earth, to the Central Asian dry steppe - they are extremely precious from a global environmental point of view.

According to the human impact survey on forest ecosystem during the last 100 years, 40 per cent of all the forest has been impacted at some level. Between 1940 and 2000 in total 43.8 million cubic meter round wood were harvested from more than 320 thousand hectare, in addition annual about 392.5 thousand ha were affected by forest fire and 101.1 thousand ha of forest area damaged by insects and pests since 1980 respectively. Only between 1996 and 1997 in total 5.0 million ha area were affected by fire and of which nearly 500 thousand

forests have been completely burnt[23]. Over the last twenty years, forests decreased by 1.2 million ha (a deforestation rate of 60,000 ha per year)[24]. The major causes for forest degradation and deforestation are fires and insect pests, but often as secondary damaging agents. Over 90 percent of these fires are human caused. More people including decision-makers and forestry authorities tend to assume that burnt trees can be cut down. Therefore, most of permission for harvest is given in burnt forest area and this process is continuing. It is obvious what kind of impact this can add to already badly effected forest ecosystem. Along the main roads and railways, where forests are easily accessible - they disappear at an alarming rate as a result of the anarchic exploitation of timber. The economic benefits that forests could generate are wasted. There exists a gap in monitoring the area of logging and the amount of extracted timber, and illegal logging is rampant.

The absence of a strong forest administration is also expressed by the lack of an effective fire management and insect control system. Another obstacle to successful environmental management in the top-decision-making level is the fact that economic, political, and social incentives *not* to enforce the law are more often stronger than enforcing the law. There is a pressing need for transparency to clarify and openly distinguish between the interests and roles of private 'for-profit' enterprises (forest plantations, timber operations, forest industries, forest based services) and 'not-for-profit' authorities (public administration and enforcement of laws) and civil society organisations. The weak institutional framework of the forestry administration puts off the successful implementation of the laws, regulations and policies that do exist. **Policy instruments on forest management and its conservation should be strengthened and streamlined.**

In order to address the problem of forest degradation at the local level, it has been introduced several measures like timber certification of origin, community forestry and amendment in forest law. But the result of these measures is doubtful.

In Mongolian timber export, sawn wood used to be played main role. While annual export of the sawn wood reached over 120 thousand m^3 in the middle of 1980s it gradually decreased to 45 thousand m^3 in 1995[2]. However, the export of sawn wood sharply increased since 1996 and it reached 268 thousand m^3 in 1998. Due to pressure from public, in 1999 the government imposed an export tax of 150,000 *Tugrug* (about US$150/$m^3$) on logs and semi-processed wood, which *de-facto* has halted the legal export. Unfortunately, it could not become a lever for further development of wood processing industries. The export tax on unprocessed wood was intended to gain some time and conserve the forest resources, but it seems to have perverted the incentives to the local market, which is served more and more by illegal logging practices that do not respect any sound forest management practice. However, the need for cash in Mongolia and the presence of a large, hungry market nearby (China) will sooner or later mean that these forests will be opened up, logged over and destroyed if the present context (especially the institutional) does not change.

During the last years, Russian-Mongolian and Mongolian-Chinese gateways Naushki-Sukhbaatar, and Zamyn Uud-Erlianhot become one of three major points for timber flow from Siberia to China. Absence of transit goods registration and lack of control have opened up "opportunities" for smugglers to convert the Mongolian forest products into transit goods. It was impossible to determine illegal trade during the project time but at least official statistics of custom's authority confirm the presence of illegal trading.

[23] The National Programme on Forestry, 2001

[24] Dr.G.Tsedendash, Mongolian Forest and its ecology, unpublished, 1998

There are not many direct forestry projects in Mongolia supported by Donors/Assistance Agencies. This is might be a result of lack of understanding of ecological importance of Mongolian forest. Major problem for implementation of donor projects is a strong institutional presence in forestry sector.