



INVESTIGATION OF WOODEN NEED CHANGE IN THREE PAST DECADES IN IRAN

Saeedeh Eskandari, Kamran Adeli

Islamic Azad University, membership of young researches club (central Tehran), I.R. Iran

ABSTRACT

Investigation of wooden needs in each country is very important and necessary for using in the country by community. Meanwhile, having accurate information of the amount of these needs in the various forestry part of country can be appropriate guideline for future predictions. The present paper has been implemented with purposes of investigation the production amount, export and import amount of Iran country in wood using Available data in various organizations. In the paper, has been tried the total wooden needs would be identified and its amount in the future would be predicted using the measuring timber production and consumption in every sector and every product and graphical analysis of existing data. The results showed that the general consumption of wood is growing in Iran from year to year while the amount of wood production has been intensely decreased in recent years. As a result the country's dependence on imported wood has been increased. Thus can be predicted the amount of consumption and need to wood would be increased in future years. So should compensate this deficiency with more wood production in Iran and export decrease and wood purchase with proper price from the outside.

KEYWORDS: wood consumption, wood import, wood export, wood production

INTRODUCTION

Investigation the amount of production and inner consumption of a product or a raw material is consistently very important and necessary in all countries of the world. One of these products is the wood products that directly depend on the amount of wood raw material. Percent of total forest area to total area of the country can show the wood deficiency in the country market (Rafighi 2006). Since amount of Wood Production of inside Forests is lower than inner consumption in Iran, a lot of wood and its products are imported from various countries to Iran. Unfortunately, these inner production and imports of wood don't follow a particular rule which it prevent of exact Planning of wood consumption in Iran. Perhaps one of the main causes of this imbalance is lack of exact knowledge of actual need and consumption of Iranian Society. The exact estimation of this need and consumption requires having accurate statistical information and analysis of them.

So far various researches have been done about the inner markets of wood and impact of outside markets on it in the various country of world. FAO (2002) accomplished a case study of forest products statistics in South and South Eastern of Asia (Bangkok and Thailand) and reported that the highest rate of wood export in the region is related to logs.

Kowero et al (2006) analyzed the different policies about harvest of forest using wood import, export and production data in Zimbabwe in the last few decades and concluded that the harvest in the forests is not optimum and need to methods to be considered various risks. Islam et al (2010) reviewed barriers of the wood trade policy in Malaysia. Results showed that the forest Economics and Wood Trade plays significant role in the economy of Malaysia so barriers in them are the most important barriers in the Malaysian economy.

Gholami (1998) investigated the wood market and wood products of Mazandaran province. He evaluated the effective factors on prices increase and production status of wood industry units and import and export amount. In The study has been tried that amount of production and consumption of wood would be identified using production and import data and its products during the past 30 years and proper strategies would be proposed for promoting internal market of wood in Iran.

MATERIALS AND METHODS

The study area

Total area of Iran is about 165 million hectares which 13.86 million hectares of it is forest. Approximately 189397 hectares of forests in Iran has been located in northern Iran which has been known as Hircanian forests. Hircanian forests are only industrial forests in Iran. since 1963 Logging of forests in Iran has been done by Forests and Rangelands Organization of Iran. Logging of forests in Iran should be according to Forestry plans which them have been approved by the Forestry Forests and Rangelands Organization of Iran (Forests and Rangelands Organization of Iran 1963- 1969). Thus study basin is the total wood market of Iran particularly productive forests basin in the northern Iran. Figure 1 shows view of Iran.

Research Method

In the research has been used of collecting statistics and library information method and diagram analysis method. First Data including annual amount of wooden productions separately based on type of product for the past 30 years, volume of annual imports in the past 30 years and the volume of annual exports of wooden productions in the past 30 years were collected of related organizations and then were calculated inner consumption amount in 10-year terms using estimation of inner production and import amount.

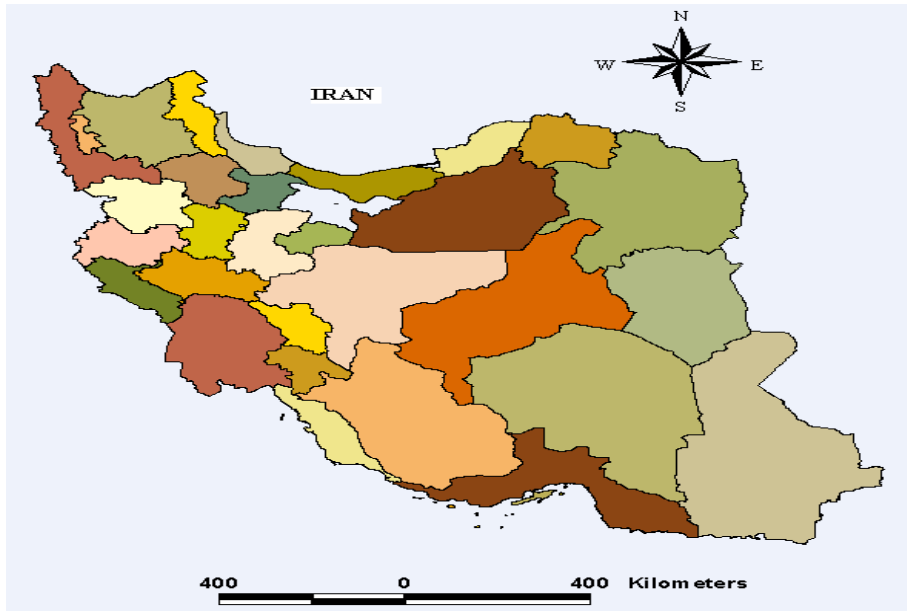


FIGURE 1 - View of Iran

RESULTS

Inner productions

Timber Raw Wood

This type of wood is produced to square form in the forest. It has a lot of losses because of lack of roads in some forest areas of northern Iran. This way is harmful both in terms of ecological and in term of economic. Figure 2 shows Production amount of this type of wood in three past decades in Iran.

Log raw wood

This type of wood is the best type of harvesting wood in the current condition of Iran's forests. Because due to the

proper size and shape have many applications in the wood and paper industries factories. Length of this product is usually three to four meters. Figure 3 shows Production amount of this type of wood in three past decades in Iran.

Traverse raw wood

This type of wood is produced to square form but its length and width is smaller than timber raw wood and was used for railroad tracks and housing. Production of this product is limit Because of specific consumption of this product, but this production has had oscillations in three past decades in Iran (Fig. 4).

production (m³)

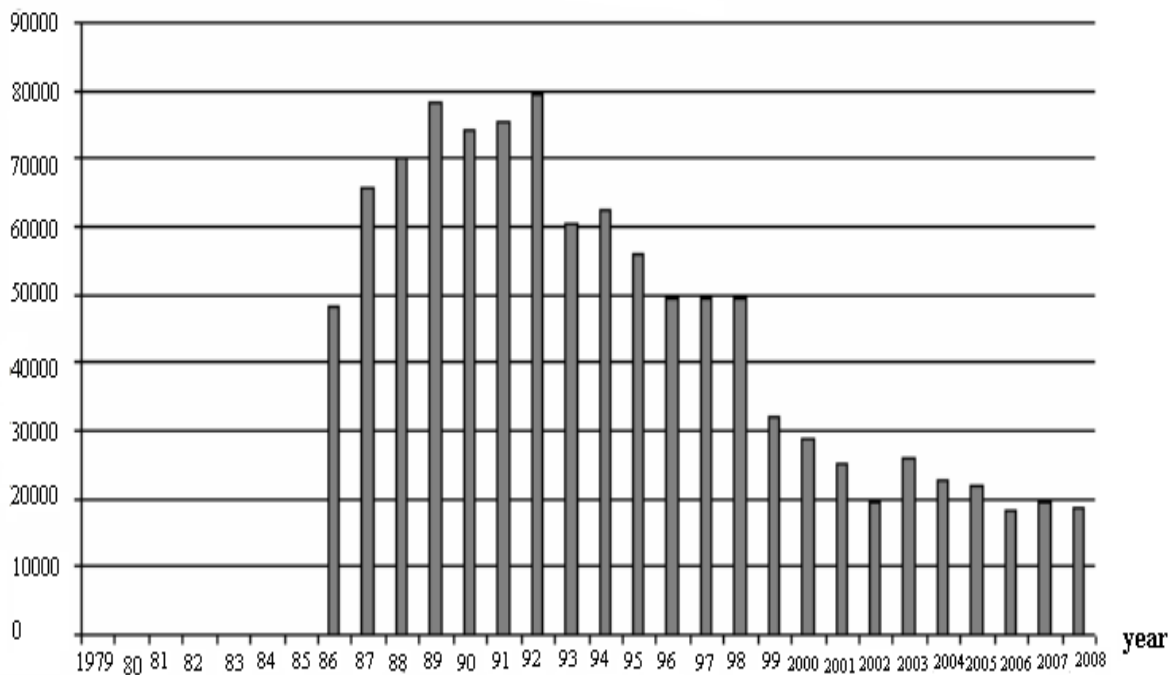


FIGURE 4 – traverse raw wood production between 1979 to 2008 (Source: research findings)

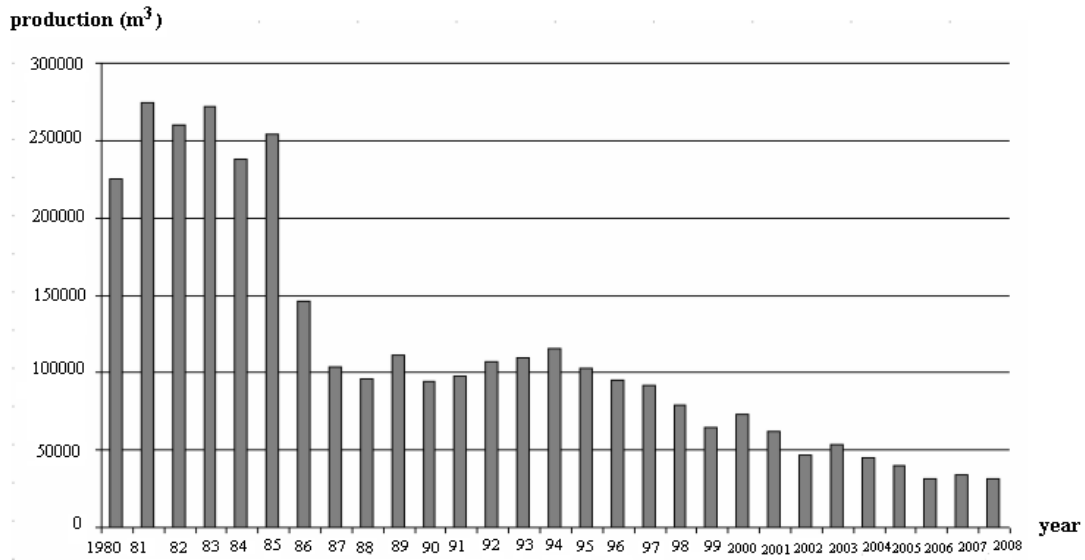


FIGURE 2 – Timber raw wood production between 1980 to 2008 (Source: research findings)

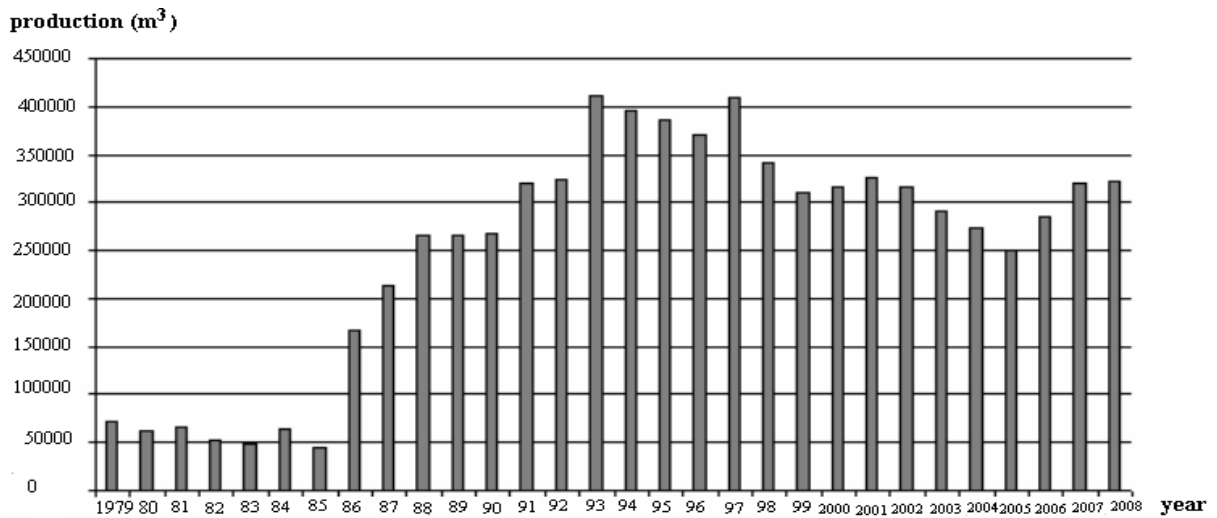


FIGURE 3 – log raw wood production between 1979 to 2008 (Source: research findings)

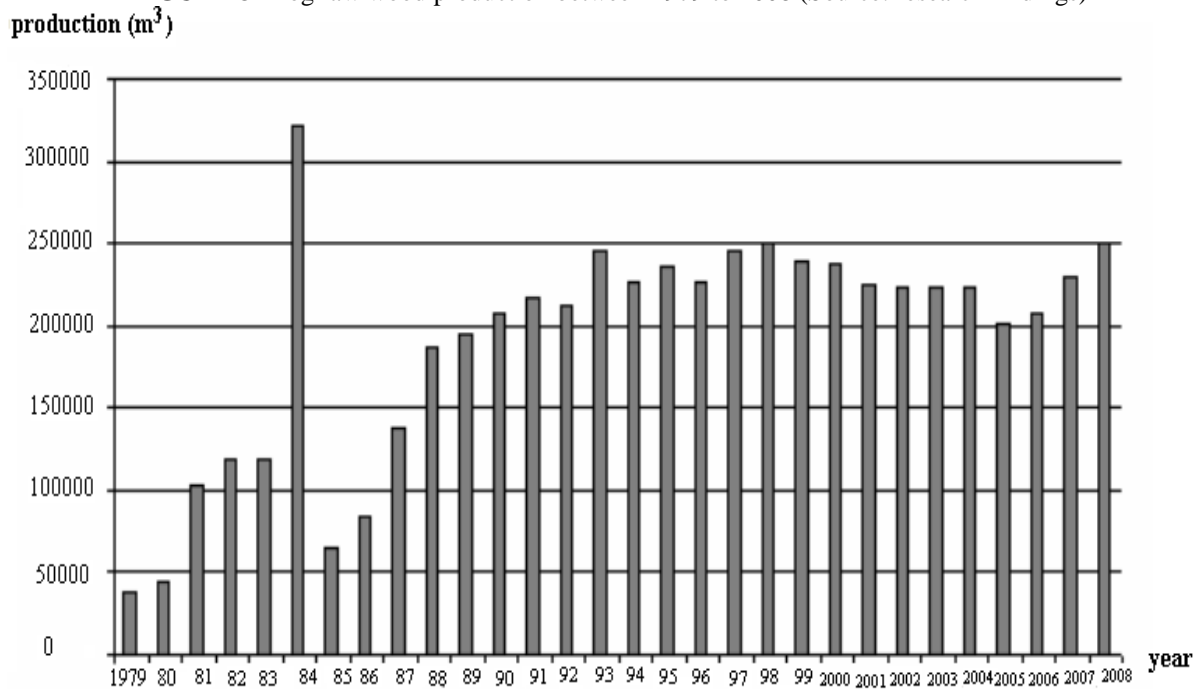


FIGURE 5 – Katyn and Lardeh raw wood production between 1979 to 2008 (Source: research findings)

Katyn and Lardeh raw wood

Katyn is another type of raw wood used in construction of boxes, furniture and windows and furniture of buildings. Figure 5 shows Production amount of this type of wood in three past decades in Iran.

Tiry and tunnel raw wood

Tiry and tunnel raw wood are used in buildings roof and in the tunnels of mines. This product usually has various length low diameters. Figure 6 shows Production amount of this type of wood in three past decades in Iran.

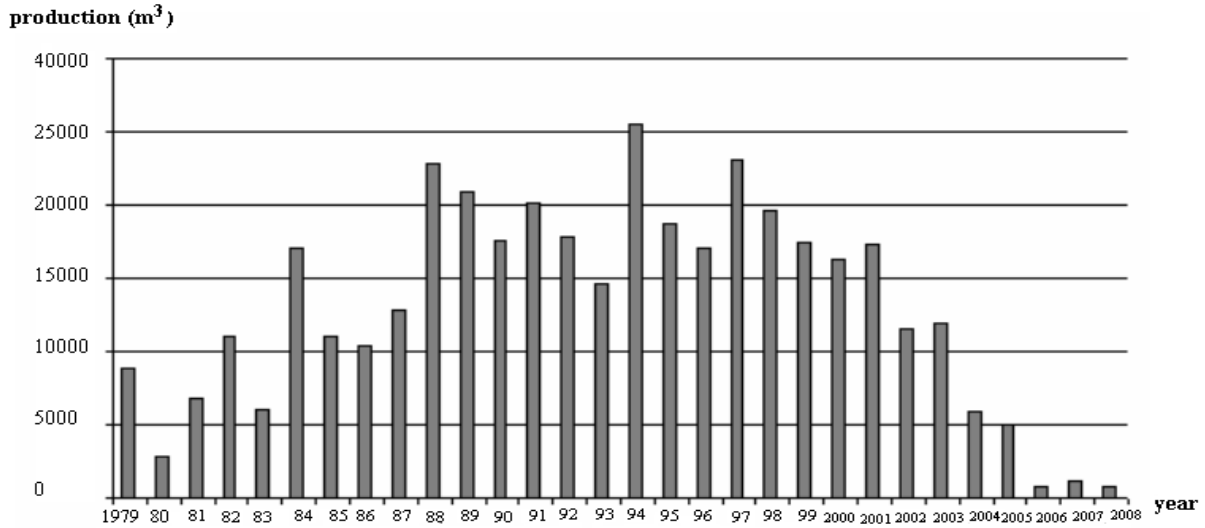


FIGURE 6 – Tiry and tunnel raw wood production between 1979 to 2008 (Source: research findings)

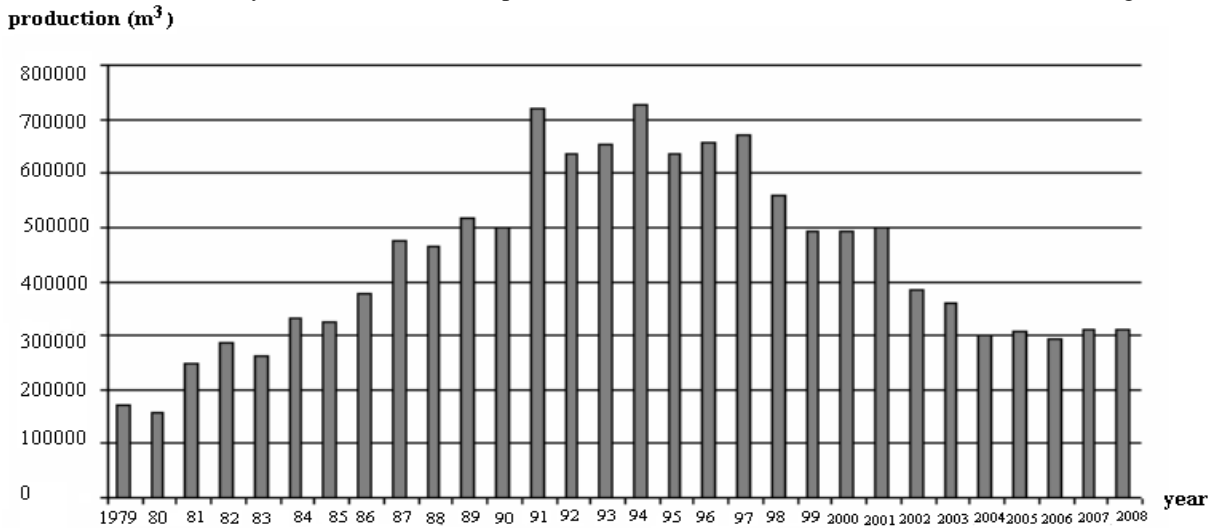


FIGURE 7 – thin raw wood production between 1979 to 2008 (Source: research findings1)

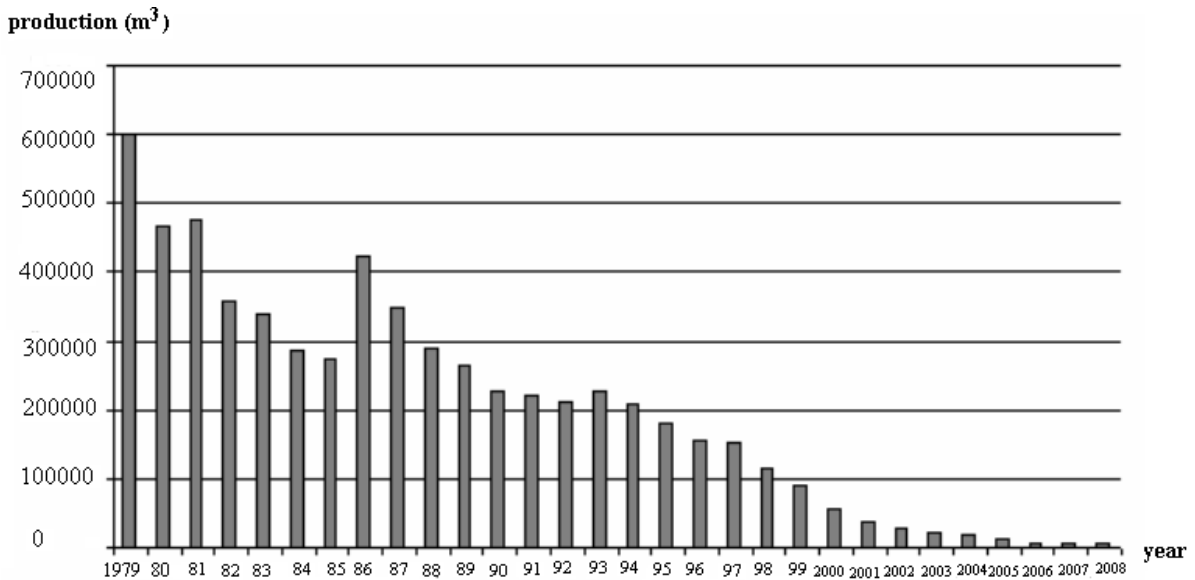


FIGURE 8 – fuel thin wood production between 1979 to 2008 (Source: research findings)

Thin raw wood

Thin raw wood is low length and diameter wood in the forest which it was used for production of Chips and MDF and other composited products. thin raw wood always has high amount in the forests (fig. 7).

Fuel thin wood

Another type of thin raw wood in the forests of Iran is fuel thin wood for fuel consumption of residents or conversion to coal. This product has low length and diameter too. The highest amount of this product is in 1979 (fig. 8).

Wood import

Total area of Forests in Iran is only 7.3 percent of Iran area. Thus Iran always needs to raw wood to afford the inner need. Wood import to Iran has had changes in three past decades. Import wood has been high in primary years of 30-year term (fig. 9). It can be due to increase the inside needs and to decrease the wood production in Iran.

Wood export

Iran has started wood export since 1993. Wood export amount has increased in the end years of 30-year term (fig. 10).

Consumption of Iran's inner market (wooden need)

Different data of production, import and export of wood was used to calculate Iran's inner consumption or need in 30 past years. First, the total inner production in Iran was calculated by adding the production of all the products in each year. Then actual consumption of wood was derived of fraction the wood export from inner production. Then the resulting number for each year was gathered to raw wood import in same year to calculate wood inner consumption or need of Iran in each year. As you can see in figure 11, Volume of wood consumption in Iran has oscillations.

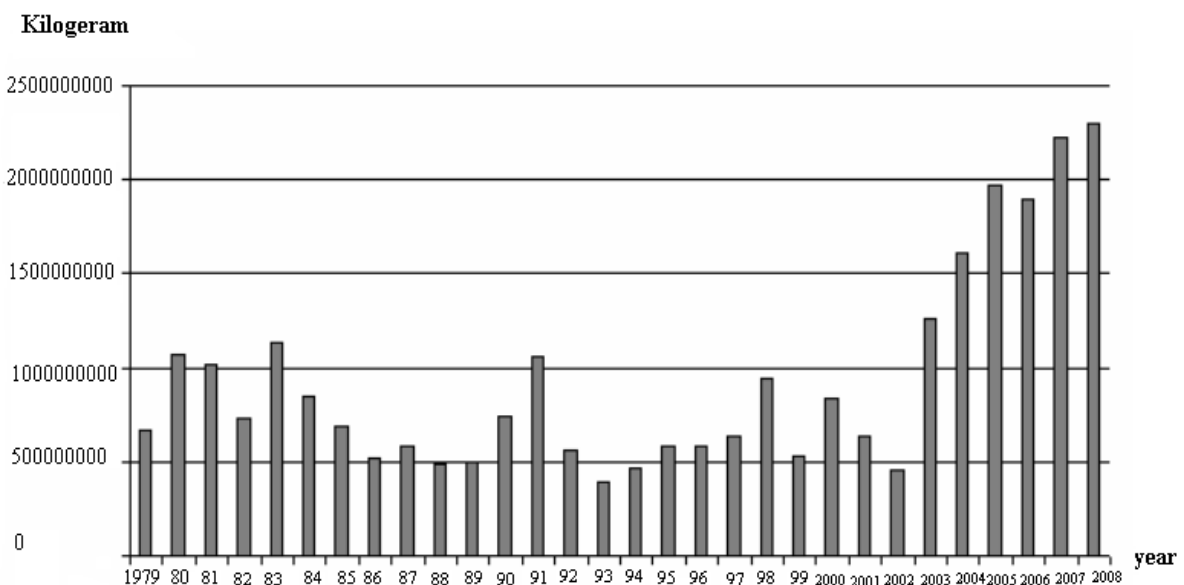


FIGURE 9 – volume of wooden products import (Kilogram) between 1979 to 2008 (Source: research findings)

Kilogram

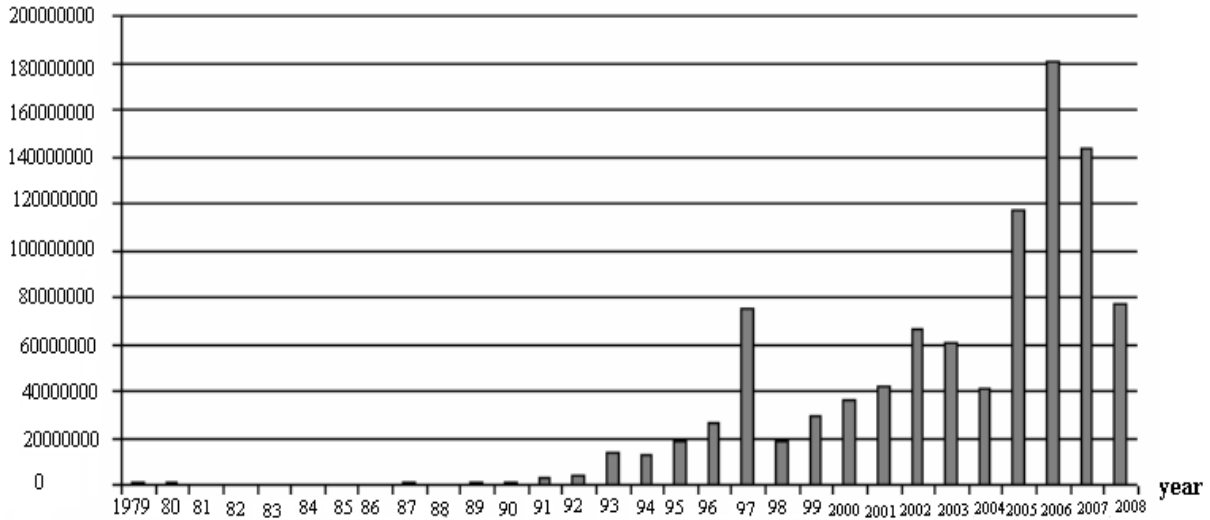


FIGURE 10 - volume of wooden products export (Kilogram) between 1979 to 2008 (Source: research findings)

Kilogram

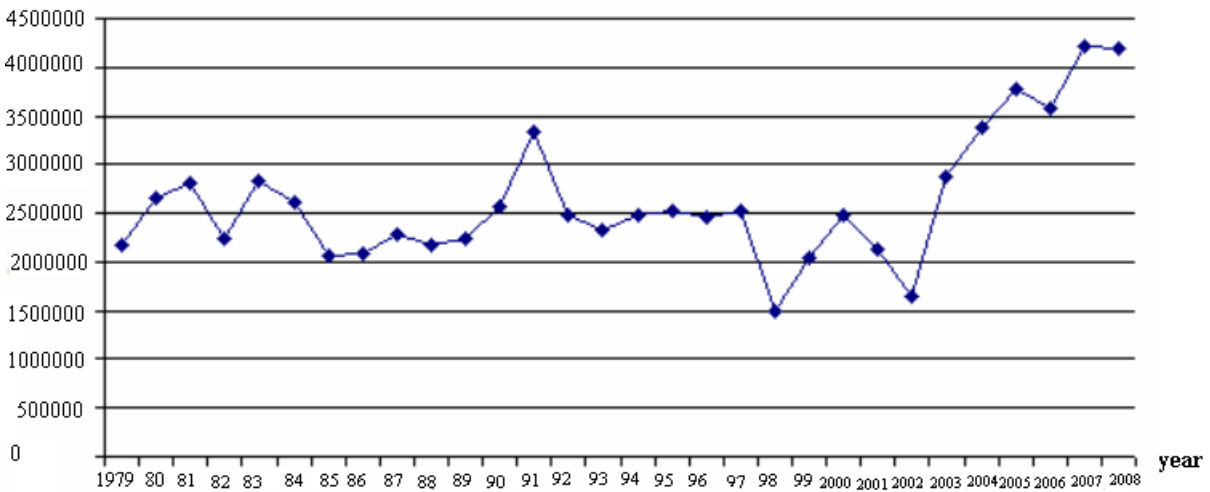


FIGURE 11 - volume of wooden consumption (need) in Iran (square meter) between 1979 to 2008 (Source: research findings)

DISCUSSION

As was noted in the results, Production of Timber Wood is much more than log wood by Forests and Rangelands Organization of Iran because of lack of facilities in the first few years of wood production. In continuation, production of timber wood is reduced and production of log wood is increased in an 15-year period. Cause of it could be two reasons: first, change of consumers demand and second tend of Forests and Rangelands Organization of Iran to use of timber wood for owns inner consumptions. In continuation of period, production of two mentioned products, is reduced because of production decrease policy by Forests and Rangelands Organization of Iran. Of course in three end years, log wood production has been increased and percentage of other products has been decreased instead. It conforms to results of Gholami's research (1998). Other Products as such as traverse and Tiry and tunnel raw woods have been decreased with the past of time from start of period to end of period. Because other goods such as MDF and HDF has been replaced

wood. While production of Katyn and Lardeh raw wood after relative decrease in first of period, always has increasing process. Because society always need to Katyn and Lardeh raw wood for production of buildinds doors and windows and furniture. Produced thin raw wood in Iran's forests generally are obtained of waste of other wood products. Thus by reducing or increasing of production of other wood products, amount of thin raw wood were reduced or increased. Therefore in half of the first period which overall production of Forests and Rangelands Organization of Iran has been high, the amount of thin and fuel wood production has gone up sharply, but with reduction of overall production organization, thin and fuel wood production also has been reduced. production of thin wood in three end years has been fixed despite the reducioin of other products that it shows low quality of produced wood. However, production of fuel wood, has been decreased throughout the period even in recent years which has reached to its lowest level (Ebrahim pour Kasmany 2008). Because fuel

wood and coal have been replaced by fossil fuels such as oil and gas in cities and some rural areas. Inner production of wood in Iran by the forests and Rangeland Organization is low in the initial years of 30-year period and it has increasing process in the middle period as reaches to its highest value in the middle period. inner production of wood has decreasing trend in the second half of period with attention to policy of the Organization.

Wood imports in Iran have always had changes or oscillations. in fact wood imports has been increased in some years which inner need is high and production is low. imports has been decreased when inner need is low and production is high. However, wood import has been increased in Iran in recent years because of the increasing population, modern living conditions and inner production reduction. Considering to export wood graph, wood export has been high from 1991 to 2008 because officials have preferred to sell inner wood with more value with attention to increase the dollar value to rials value. But the proceeds of wood exports is not comparable with quality and genetic values of Northern forests of Iran. Finally, the volume of consumption or inner market needs of Iran has always been more than 2 million cubic meters (inner production). So, Iran always needs to import of outside wood. But in some points, this consumption has had intense reduction which it contradict to increasing population and increasing consumption. One of reasons is government wood in Iran. In fact in recent years, government has decreased the wood production and market need has not been decreased. Wholly, we can say that Iran's wood need and consumption is increasing in the recent years and it is predicted that this trend will be rising in the future years. thus following recommendations are offered to improve the consumption situation in Iran: 1 – for more production of wood in Iran should be developed

wood production by planting the fast-growing tree species in the outside of North of Iran. 2 – it is necessary Culture of use the paper and wood will be improved in the community to control and to decrease the wood consumption in Iran. 3 - It is better the wood export decrease and inner production increase instead to control the market. 4 – to Use of substitute goods spatially in paper and furnitures industry is a proper way to reduce wood consumption in Iran.

REFERENCES

- Ebrahim pour Kasmany, J. and Hmsy, A. H. (2008) Assessment of production of wood products types in Irans northern forests during 10 years period. *Journal of Agricultural Sciences*, **12**: 122-134.
- EC_FAO PARTNER SHIP program. (2002) An overview of forest product statistics in South and South East Asia. FAO, Bangkok, Thailand.
- Gholami, J. (1998) investigation of wood Market and wooden products of Mazandaran province. MSc thesis, Islamic Azad University, Science and Research unit. 120 P.
- Islam R, Ismail M. Sh, and Siwer Ch. (2010) Analyzing of Trade Barriers to Timber Trade Policy. *American Journal of Environmental Sciences* **6 (1)**: 95-102.
- Kowero G., R. Mabugu. (2006) Macroeconomic policies and industrial wood processing and trade in Zimbabwe. *Forest Policy and Economics* **8**: 22 - 34.
- Rafighi, A. (2006) investigation of supply and demand situation of paper products, *Natural Resources Journal of Iran*, **59**: 20-31.