



STATUS OF QUANTITATIVE DISTRIBUTION FOR FOREST ROADS BASED ON VILLAGE DEVELOPMENT OF TAJAN FORESTRY PROJECT (MAZANDARAN PAPER AND WOOD CO.)

¹Sareh Hosseini , ²Ataollah Hosseini , ³Sanaz Tahmooresi

¹Faculty of Natural Resources, Sari Agricultural Sciences and Natural Resources University, Sari, Iran

²Department of Forestry, Faculty of Natural Resources, Sari Agricultural Sciences and Natural Resources University, Sari, Iran

³Faculty of Natural Resources, Sari Agricultural Sciences and Natural Resources University, Sari, Iran

ABSTRACT

This study is done for a survey on the role of forest roads in development of forest villages at the north forest margins in villages that are under the coverage of one of the biggest Mazandaran paper and wood company with 112 series and 70 villages in watershed (Tajan, Talar, Siahrood) regarding to last watershed maps (Tajan Talar Siahrood) of Mazandaran paper & wood industries and present villages in this region. Counting of villages with height classes separation, high section – medium section – low section was performed. Then the portion of roads for accessing to villages measured in 3 height classes. Finally the relation between forest road distribution in 3 height classes and village distribution in that height classes was searched in this factory. Research showed regarding to this fact that the majority of forest margins village which are under the permanent coverage of Mazandaran wood & paper industry company, and they always reside in forest margins, village distribution in 3 height classes is proportion with quantitative distribution of forest roads. Finally for proportion between forestry project and villages development, the use of all the ecosystem capacity needs to quantitative and qualitative development and reasonable distribution.

KEYWORDS: permanent development, social economic problems, village, forest destruction, forest road

INTRODUCTION

Village is an economic, social, political unit, with a formal specific region and domain, (lawful and recorded) that includes a few families and specific administrative such as Islamic council and parliament (Binam 2008). Forests area equal to 26 percent of total world land are the habitats of large part of the plants and animals species, also they consider as an important source for villagers livelihood. But today many environmental problems in our country specially in Alborz mountains forests are resulted from poverty and weakness of social-economic system about people in added to lack of environmental awareness and it forces rural communities in forest margins to exert more pressure on environment and forests in village margins for the sake of living (Rezvanfar et al 1993). To achieve optimum exploitation of forest it is necessary to create a network from forest roads with enough density for forest opening and accessing to all of its parts (Mohajer 2005). Permanent development includes the quality of human life until that time which ecosystem capacity removes their needs (Karimi 2004). World Commission on Environment and Development that presents this term for the first time, defines permanent development as a development which provides existing generation needs without making problem in the ability of future generation to provide their demands (Najafi 2007). The main goal of permanent development is mentioned as providing basic needs, improvement and promotion of living level for all the people, to maintain better land management, more secure and happier future. This goal implies the contradiction that many people know it as the main characteristics of permanent development term; providing needed growth to

improve levels of public life and more prosperous future and with preserving land, but the issue is that with changes that human creates in environment and natural bed, it reached to a critical stage of its history that continuing a healthy life on Earth requires a revision of the assumptions that the common models for planning and development based on them are. Permanent development proposed as a system that keeps environment quality in addition to strong management in exploitation of resources for providing the needs of people (Pastopoulos et al 1993). To achieve permanent development, assessment and description of environment status before any program planning, is essential (Makhdom 2001). Assessment of ecological ability is a process that tries via adjusting the human relationship with nature, provide an appropriate development that is according to the nature. In fact this assessment is an effective step to obtain a program for permanent development, because with identifying and assessment of the ecological characteristics in each area, development programs can be planned along with nature and the nature itself determines land capacities for development. Therefore, assessment of ecological potential as a logistics base for land or environmental planning will be inevitable for countries which trying to achieve the permanent development and saving sources for future generations (Radclift 1994). A research that is done in Scotland shows that the role of forestry in rural economy, increases followed by description of forest engineering science. Cultivation and exploitation of forests that are near the villages is a great potential for rural economy improvement. As a result joining of forestry and

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wood agriculture has had an important role in economic development of Scotland villages (Rezvanfar et al 1993).

47° 35' until 30° 36' northern latitude and from 34° 50' until 10° 54' eastern longitude of Prime Meridian. According to the latest status of national divisions, Mazandaran Province was established in 1316 and it has 17 towns, 52 cities, 45 districts, 115 municipalities and 2427 villages. Also, about 43 percent of cities are located in the coastal strip. According to the census in 1375 this Province had a population about 2,206,800 of which about 46 percent resided in urban areas and 54 percent were in rural areas. (figure1) (Frahangsara 2009).

MATERIALS AND METHODS

Study area

Mazandaran Province location

The study area is located in the north village part of Iran (Figure 1). Mazandaran Province with an area equal to 2383000 hectares includes about 1.5 percent of Iran area and for space or area it is 18th province in the country. Its metropolis is Sari and it is located between circuits from



FIGURE1. Status of village establishment in the forest and in forest margins

Characteristics of Mazandaran natural resources

Mazandaran has 2383000 hectares area (1.5 percent of total country area) and the space of natural resources (forest and pasture) in this Province is 2085000 hectares (1.22 percent of total country area, 91 percent of Province area) that its forest and pasture space with separation of Natural Resources Department field showed in figure 4 (1).

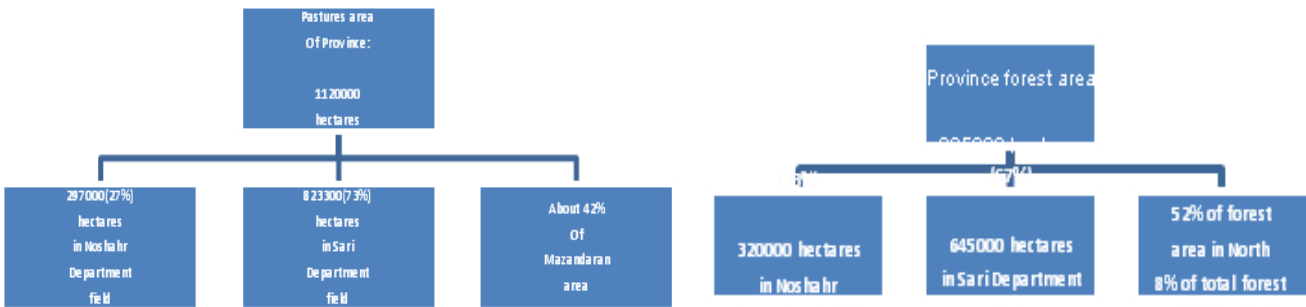


FIGURE2. Forest and pastures area of Mazandaran (Department of Sari and Noshahr)

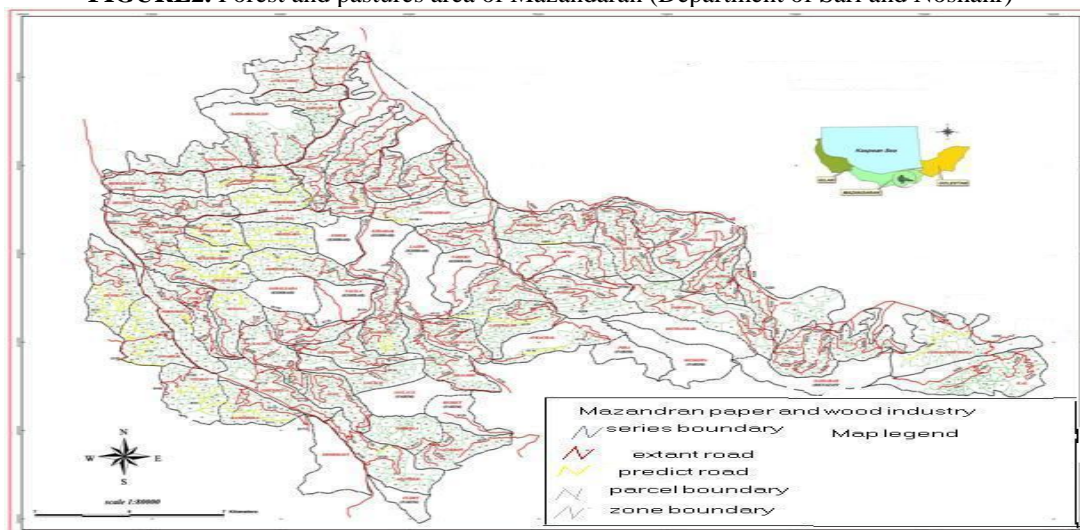


FIGURE 3. Total perspective of series, parcel, the existing roads and predicted roads in the paper and wood industry field of Mazandaran watershed (Tajan Talar Siahrood)

Mazandran paper and wood industry

Mazandran paper and wood company is the largest paper producer in Iran and has a capacity of 175000 tones paper for newspaper and 9000 tones for printing and writing paper and 85000 tones for Floating paper. This company is a kind of corporation and opened on 1997/05/7. Many forestry projects are under the coverage of this company and many margins villages are in this forestry projects.

METHODS

Regarding to environmental value of forest and forest roads and its role in economic and social development of villages who live in north forests margins like Mazandran, we are going to search the necessity of this research completely, so this research is done in villages which are under the authority of one of the largest Mazandran paper & wood company (Tajan Talar Siahrood) and has 112

series and 70 villages in watershed (Tajan Talar Siahrood) our purpose is a survey on the role of forest roads in development of forest villages at the North forest margins. Regarding to the last watershed (Tajan Talar Siahrood) maps of Mazandran Paper & wood industry and existing villages in this watershed, we attempt to counting villages with a separation in height classes, low section (<700 m height) medium section (700-1800 m height) and high section (>1800 m height) Then we measured the roads portion in this height classes. Finally we analyzed the relation ship between forest roads distribution in 3 height classes and villages distribution in the same height classes (high section, medium s., low s.) in this company.

RESULTS AND DISCUSSION

The result of this article consider at below:

TABLE 1. Distribution of studied villages & the number of livestock in north forests with a separation in height (Hedayati 2003).

height	Number or existing villages in forest	Portion in total villages	Total livestock	portion
Low section	1000	48	33940	39
Medium section	1138	28	28751	33
High section	426	16	24018	28
total	3401	100	86679	100

TABLE 2. Status of village distribution in Tajan Talar Siahrood watershed with a separation in height

height	Number of village	Portion in total villages
Low section	16	22/80
Medium section	28	40
High section	26	37/15
total	70	100

TABLE 3. Status of existing forest roads in Tajan Talar Siahrood watershed

Height	Distance of forest roads(km)	Portion of forest roads(km)
Low section	203/0505	16/74
Medium section	381/0108	31/42
High section	628/8390	51/84
total	900/1212	100

Studies and searches indicate that, regarding to this fact that the majority of villages in forests margins which are under the authority of Mazandran paper and wood company, are permanent and they always reside in this forest margins. Respect to this fact that respectively 16/74,31/42,51/48 percent of forest roads that are in this authority field, with separation in height are in low section (<700 m height) medium section (700-1800 m height) and high section (>1800 m height), also if respectively 22/85,40,37/10 percent of villages in forest margins of Tajan Talar Siahrood watershed of Mazandran paper and wood company, with a separation in height are in low section (<700 m height) medium section (700-1800 m height) and high section (>1800 m height), so road portion

and the road development state is suitable for village development.

DISCUSSION

According to census if forest, Pastures and watershed Management organization, in North watershed, there is 4316 village, that 3401 village of it located in the forest According to the estimation of province Natural Resources Department in forests which are under the authority of department field, in the past there were over the 6/1 Million livestock units (in the form of about 1100 livestock units) with 7300 livestock farmer. Until the end of 1386 about 370000 livestock unit is exited. Still about 2/1 million livestock units in the form of 8600 livestock husbandry present in forest areas. In Sari forests reside

about 992 villages with 22000 people (4300 families) in the form of scattered single family inside the forest. Until now 19 villages with a population of 1850 people (795 families) has exited from the forest and others are in the action. (table1) (Rezvanfar et al 1993). There is no doubt that to achieve the goal we must pay attention to environmental issues and rural development, also we should attempt for creating more potentials to support permanent resources, social welfare, population attraction and finally reserving permanent environmental values in rural regions. Therefore according to researches that are done in the studied region maximum of forest roads have been in the high section (628,8390 km) and minimum of them have been in the low section (203,0505 km). Also the number of villages in high section (26 villages) has been less than its number in low section (28 villages). In spite of this fact that the rate of forest roads in high section have been twice the rate of them in middle section, because the majority of villages have been temporary in high section, but they have been permanent in middle section, so forest roads is followed by villages development in this three height classes (table2,3). Therefore construction of forest roads with declared conditions, if it be well protected and point out about its maintenance, also design and construct based on engineering criteria and followed from environmental principles, in this condition not only there are no destruction for natural resources and forest life, but also it will be a sure funding for forest life and permanent development(Mohammadi, 2003).

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