RESEARCH ARTICLE
LAND USE AND MINING IN KHREW AREA OF PULWAMA DISTRICT OF KASHMIR VALLEY
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ABSTRACT
Mining operations for the extraction of minerals and fossil fuels like coal, stones often involves vast forest area. Surface mining while that from deep deposits is done by sub-surface mining from shallow deposits. More than 80,000 hectares of land of the country is presently under the stress of mining activities and its associated activities require removal of vegetation along the underlying soil mantle and rock masses. This results in defacing the topography and destruction of the landscape in the area. Large scale deforestation has been reported in Mussorie and Dehradun valley due to indiscriminate mining of various minerals over a length of about 40 km. The forest area has declined at an average rate of 33% and the increase in non-forest area due to mining activities has resulted in relatively unstable zones leading to landslides. To collect data and analysis of the same a questionnaire was developed and interview was conducted to different people belonging to different mining areas of Pulwama District, in order to pertain information about the land use planning in mining areas. Information on land attributes was obtained from discussion with the villagers of the area and during survey, work was done on two villages which was selected in order to access the information about the area comes under the effect of mining. After interview and field work whole data was collected and analyzed.

INTRODUCTION
India has total area of about 328 million hectare. Though confessing due to lack of proper estimation technology as remote sensing. The land utilization statistics available are for nearly 92.5% of the total area. About 140 million hectare of land is said to have been brought under agriculture over the past 80,000 years. Another 22 million hectare is added after independence making a total of 162 million hectare under agriculture. It makes about 51% of the total land. In India there are some figures available on land use pattern there has been a slight increase in the net area of sown. About 23 million ha have been added over 3 decades. This is about 47.7% of total land area. Another 13% of land is under fruits. Nearly 5% of land falls under fallow land, cultivated once in every 2-3 years. Thus 51% of the total area, average is cultivated every year. Efforts are made to restore the fertility of fallow land by use of fertilizers and new technology. The pasture land is very low, indicating population pressure on land. The forest land in India is below the scientific norm. About 46 million ha is under real forest as shown by satellites and not 67 million as given by land statistics. We must increase our area under forests. A part of the land is not in use. This is classified as wasteland. This includes the arid, rotary and sandy deserts high mountains and uneven lands. Much of the land is being used in cities and towns as residential land. The land is also needed for industry commerce, transport and recreation since total land is a fixed asset, we must make efforts for integrated land use planning. District Pulwama is the famous district of the Kashmir valley especially for having huge area under mining and saffron cultivation. It lies in the south-west of Srinagar.

MATERIALS AND METHODS
Methodology based on interview
During survey a questionnaire was developed and interview was conducted to different people belonging to different areas of Pulwama district, in order to pertain information about the land use planning in mining areas.

Methodology based on field work
Information on land attributes was obtained from discussion with the villagers of the area and during survey, work was done on two villages which were selected in order to access the information about the area comes under the effect of mining. After interview and field work whole data was collected and analyzed.

Village Khrew

General information

<table>
<thead>
<tr>
<th>Info</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of village</td>
<td>Khrew</td>
</tr>
<tr>
<td>Location of village</td>
<td>25 km from Srinagar</td>
</tr>
<tr>
<td>Population of village</td>
<td>1000</td>
</tr>
<tr>
<td>No. of males</td>
<td>510</td>
</tr>
<tr>
<td>No. of females</td>
<td>490</td>
</tr>
<tr>
<td>Area of village</td>
<td>85 ha</td>
</tr>
<tr>
<td>Waste land</td>
<td>5 ha</td>
</tr>
<tr>
<td>Dominant occupation</td>
<td>mining labour</td>
</tr>
<tr>
<td>Net area under agriculture</td>
<td>50 ha</td>
</tr>
<tr>
<td>Living standard of people</td>
<td>Average</td>
</tr>
<tr>
<td>Density of population</td>
<td>densely populated</td>
</tr>
</tbody>
</table>

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Type of settlement = Linear
Literacy rate = 60%

Mining Information
Name of mining center = Khrew
Location of mining center = N.E. of village
Net area of mining = 87 ha
Lithology of mining area = Sedimentary rocks (limestone)
Vegetation of mining area = Wild scrub plant
Leaching started = 1972
Soil type of mining area = Dominated by mountain soil
Effect of mining on crop = Mining has affected saffron
Effect of mining on people = Reports of respiratory diseases
No. of labourers working in mining = 300

Agricultural Information
Net area under agriculture = 50 ha
Fallow area = Nil
Dominant crops = Saffron, maize
Vegetation of locality = Popular, kikar, walnut & apple
Net area sown = 50 ha
Irrigation source = Water pump
Other means of irrigation = Nil

Village Shaar
Name of village = Shaar
Location of village = 28 km from Srinagar
Population of village = 2000
No. of males = 1200
No. of females = 800
Area of village = 213 ha.
Waste land = 5 ha
Dominant occupation = Mining labourers
Net area under agriculture = 70 ha
Living standards of people = Average
Density of population = Dense population
Type of settlement = Circular
Literacy rate = 60%

Agricultural Information
Net area under agriculture = 70 ha
Fallow area = Nil
Dominant crops = Saffron maize
Vegetation of locality = Popular, kikar, walnut, apple
Net area sown = 70 ha
Irrigation source = Water pump
Other means of irrigation = Nil

RESULTS AND DISCUSSION
In District Anantnag of Kashmir valley the dominant minerals of mining are lime stones and are extracted over the area of about 211.89 ha and is the leading the mining center of Kashmir valley.

District Pulwama

In District Pulwama the dominant product mining are lime stones and are extracted over the area of about 311.89 ha and is the leading the mining center of Kashmir valley.

District Doda

In District Doda the dominant product of mining is Gypsum and the area involved in mining is about 336.89 ha and the area is fit for extraction of gypsum.

District Rajouri

The land is getting degraded at much faster rate vegetation and fertility of soil is being degraded at an alarming rate. The agricultural land is changing into mining land which leads to the shortage of food production and agro based economy. There should be other occupations, which can dominate over mining occupations in mining areas.

Suggestions
1. Mining should be done in those areas which are fallow and waste lands.
2. Mining should be away from residential areas.
3. While mining we should keep into consideration the valuable human life.
4. Government should give relaxation to the people of mining areas.
5. Mining should be prohibited near the tourist resorts agricultural areas, residential areas.
6. Except mining occupation there should be other occupation.

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7. There should be scientific equipments for laboures so that there can be less chance of diseases.

CONCLUSION

Land is used especially for the purpose of making residential buildings factories roads and this all land supports human needs in the form of food clothes and shelter. Due to tremendous urbanization, a large no. of people cannot get two time food due to reason of conversion of agricultural land into residential land. Mining results in desertification.

It is estimated that if desertification continues at the present rate, then by 2020, it will affect such lands which are presently occupied by 20% of human population. It is estimated that in the last 50 years, human activities have been responsible for desertification of land area equal to size of Brazil.

References

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Data by- Department of Geology and Mining J& K.

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