Phytogeographical Distribution of *Saccharum munja* of Churu District, Rajasthan

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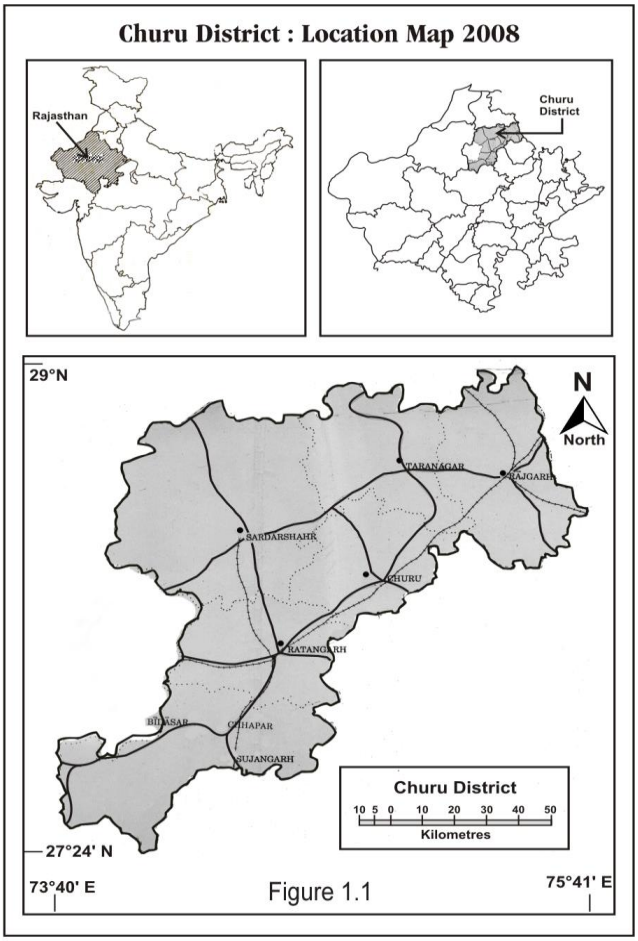
STUDY AREA- As we know that the area under district i.e. Churu district belongs to the State of Rajasthan, the State of Rajasthan is located in north-western India . The district of Churu lies in the north-east of Rajasthan State at an altitude of 286.207 metres above the mean sea level. From geographical spread point of view has extension from 27°24' to 29° north latitudes and 73°40' to 75°41' east longitudes. It is bounded by Hanumangarh in north, Bikaner in west, Nagaur in south and Sikar, Jhunjhunu districts and boundaries of Haryana State in the east. It covers six tehsils namely : Taranagar, Rajgarh, Churu, Sardarshahr, Ratangarh and Sujangarh. (Figure1-1)



Source : Based on Survey of India Map with The Permission of the Surveyor General of India

I. REVIEW OF LITERATURE

The area under research work was studied by following botanists and time to time viz; first of all the Sekhawati region was touched from vegetational study point of view by Mulay and Ratnam (1950), Bikaner and pilani neighbourhood areas by joshi (1956 and 1958), vegetation of chirawa by Nair (1956), again Nair and Joshi for Pilani and neighbourhood areas (1957), vegetation of harsh nath in aravalli's hills was studied by Nair and Nathawat (1957), vegetation of Jhunjhunu, Manderella and neighbourhood by Nair (1961), vegetation of ajit sagar dam by Nair and Kanodia (1959); Nair, Kandodia and Thomas (1961) studied the vegetation of Khetri town and neghbourhood areas and vegetation of Lohargal and it's neighbourhood areas of Sikar district by Nair and Malhotra (1961). After the work of Nair and Malhotra (1961), i.e. four decades ago. the area was again left for any sort of further research work in the field of applied Botany.

A significant, very authentic taxonomic work was contributed in the field of botany by Bhandari with the publcation of a book Flora of the Indian desert (1990). From the field of applied phytogeography point of view. Charan gave a valuable contribution with a publication of a book on Plant Geography (1992). Bhattacharjee (2000) gave a very valuable autheontic contribution through the publication of a book on Handbook of Medicinal Plants in which he presented the medicinal plants of Indian Sub-continental back ground with their coloured photographs also and Sharma (2007) gave a very valuable autheontic contribution through the publication of a book on Medical Plant Geography.

II. OBJECTIVES

As the nature of the research work, it becomes the prime most duty of a phytogeographer to trace out to identify the plants and than their geographic interpretation from their origin point of view, their cartographic presentation from spatial distribution point of view and lastly also to prepare their layout planning map for on going plantation programme at least for the applied plant species for the area under study. The study will covers also the change detection aspect in the green coverage of the area under study.

III. HYPOTHESIS

Naturally, the present study will cover the present position of phytogeographic pattern of spatial distribution of applied plant species, so a phytogeographer can propose their allocation of sites of coinciding habitats from their conservation point of view for the welfare of future generation of the area under study.

we can conserve those plant species which have their appled values for the welfare of human beings inhabiting in that particular area or the area under study. for this purpose, a phytogeographer has to give an account of the layout maps of that area under study which covers the allocation of the sites with favourable habitats according the nature of the existing applied plant species for the area under investigation.

IV. METHODOLOGY

Applied categorization of those listed applied plant spices will be carried out into their main applied categories, viz; plants for fuel purpose, plants for fodder purpose, plant species for medicinal use, plants for edible purpose, and plant species for commercial values.

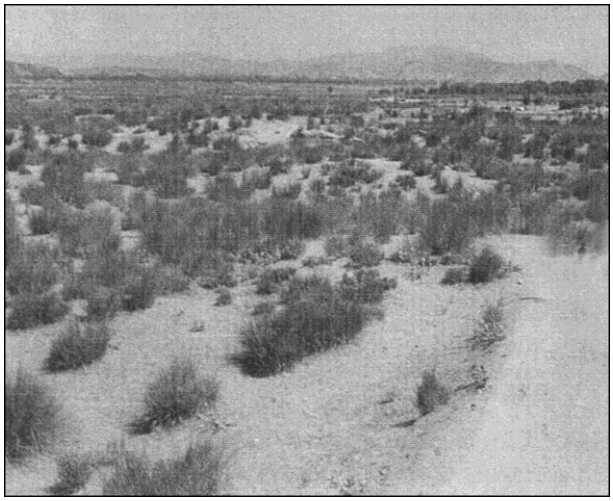
To illustrate the frequency of distribution of particular plant species the prescribed method of Raunkier's will be exercised to show whether the particular plant species is rare, frequent, common or abundant for the area under investigation. The nature of habitats and the eco-climatic conditions will be dealt as a part and portion of the study to support the phyto-climatic account of the research problem for the area under study.

From phytogeographic study point of view, a cartographic interpretation of the multi-purpose plant species will be dealt at two levels i.e. at macro-level and at microlevel, basically it may be dealt phytogeographic sense.

V. PHYTO-GEOGRAPHY OF SACCHARUM MUNJA

1. Name of the Specimen :
SACCHARUM MUNJA
2. Local Name :
Munja Ghas,Dharbi Ghas,Sirki Ghas
3. Botanical Name :
Saccharum munja
4. Family :
Poaceae
5. Morphology :

It belongs to the family “Poaceae”. A robust, perennial grass 1.5-2.5 mtr. tall. Leaves liner, usually more than 1 meter long, 1-2 cm. broad, silky at base, hairy on margins above (Plate : 1.1).



VI. FLOWERING AND FRUITING

Almost through out the year the grass bears flowering and fruiting phenomena.

VII. VEGETATION GROUP

Among vegetational groups it belongs to the group of grasses and xerophytic categorisation falls under the class of Rest of the species.

VIII. ECO-CLIMATIC CONDITIONS AND HABITAT

It is a grass species which bears poly-climax nature of habitat distribution, It covers sandy plains, sand dunes, gravel formation and the land under irrigated area and riverine habitat. By nature it has common occurrence in moist places hence due to this fact riverine habitat is one of the most suitable habitat its phytogeographic distribution. It has wide range of rainfall distribution that is up to 150 cm. And has occurrence in warm regions of the old world.

IX. APPLIED USES

Out of five applied categories it covers three viz; fuel, fodder, commercial.

A. Fuel Purpose:

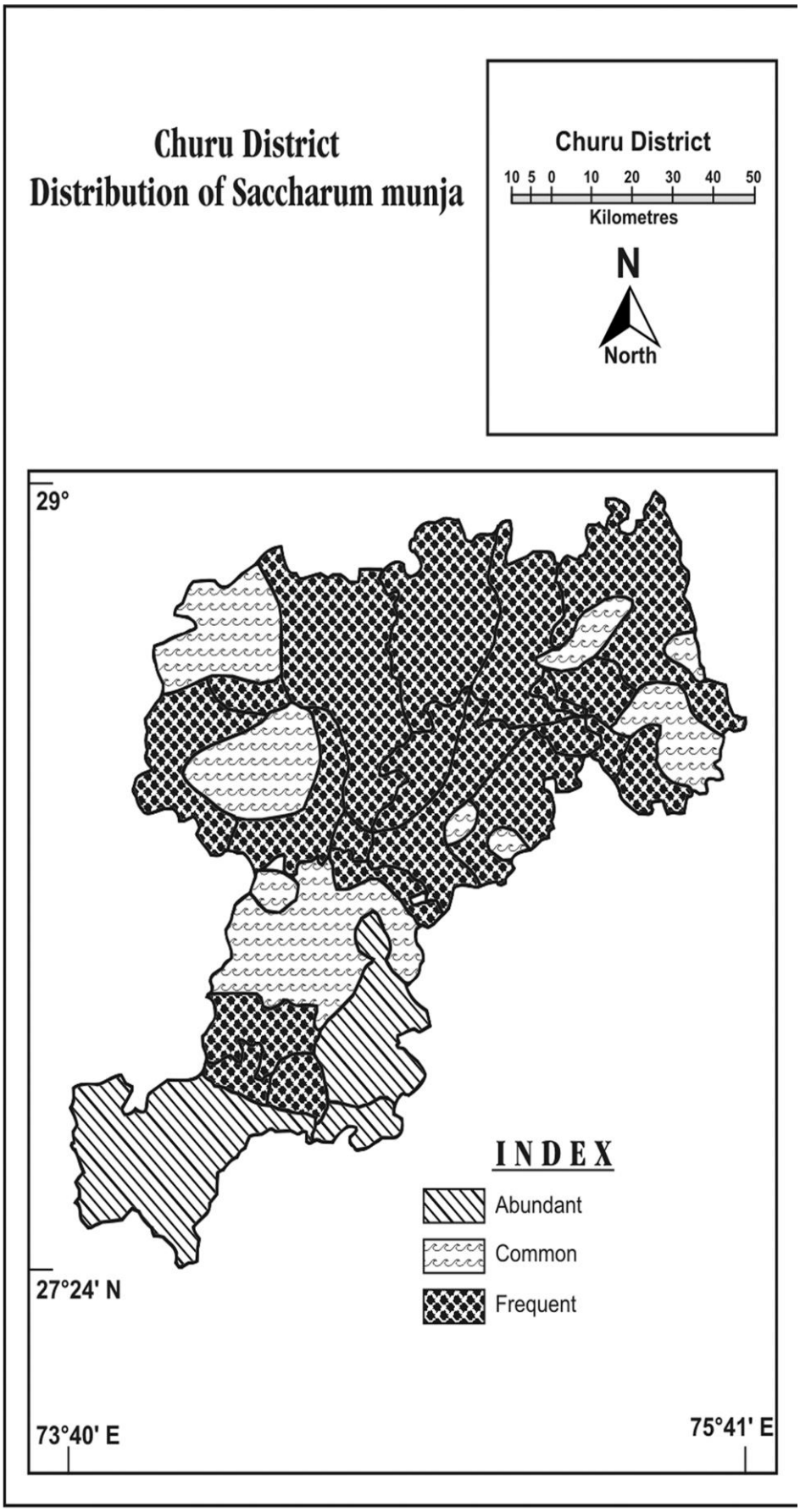
Although it is not a durable fuel but it is generally used by the villagers for domestic purpose for example - cooking etc. Thus it is a very common as well as easy available fuel for the inhabitants of the study area.

B. Fodder Purpose:

At younger stage of the plant the grass is consumed by the domestic animals specially camel. As a fodder.

C. Commercial Purpose:

It is one of the most valuable grass species at commercial level at local market. It has economic value to sale out for Sirki purpose, as thatching material, to prepare crude ropes, for preparation of “ Chhapar”, preparation of basket and toys also. Thus it has a



Source : Forest Survey of India Dehradun, Forest Deptt. Govt. of Rajasthan, Jaipur & Field Survey

sound place in the rural society for their requirements which are prevailing from centuries back in rural environment.

10. Phyto-geographical Distribution:

The grass has limited distribution at global level. That is only in north and north-west India which includes Punjab,

Haryana, Rajasthan, Uttar Pardesh and so on.

The grass species shows its three patches of abundant distribution and it is very interesting to mention here that among these patches, the largest aboundant patch and one small patch of Saccharum munja is located in Sujangarh tehsil . A large abundant patch of its distribution is located in south-western part of the district which has sand dunes and sandy plain topography Another large patch of this grass sp. is located in Ratangarh tehsil. It has common occurrence at some places as shown in figure : 1.1. It is very interesting to mention here that the grass sp. has no rare occurrence in area under study. At certain habitats like - aquatic habitat, pure saline habitat slopes and tops of the hilly areas, it has no occurrence. Generally, Saccharum munja has frequent occurrence from phytogeographic pattern of distribution more or less throughout the area under study. Rarely it may not be seen in any area of Churu district.

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