

Survey of Hindupur Taluk, Anantapur District with Special Reference to Cultivable Waste Lands

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Introduction: Cultivable waste lands constitute one of the most important and potential additional sources of increased food production. In arid tracts like the Ceded Districts they occupy a considerable portion of the land fit for cultivation. A survey to assess the physical, soil and botanical features of waste lands can give an indication of the suitability of these lands for cropping and the possible means of bringing them under cultivation.

With that end in view, an experimental survey of Hindupur Taluk in Anantapur District, with special reference to waste land areas, was undertaken by the author in 1946 under the orders of the Director of Agriculture, Madras. The salient features of the taluk as brought out by the survey are presented in this paper.

Physical features of the Taluk: Hindupur is the southernmost and smallest taluk (with an area of about 431 Square Miles) of Anantapur District. It is a continuation of the Mysore Plateaux. It is traversed from north to south by the southern extension of the Penugonda range of Hills, dividing into two approximately equal parts. A similar continuation of Mallappa Konda range forms its eastern boundary. Between these two hill ranges lie a series of undulating uplands. This portion forms the eastern part of the taluk. The western part lying to the west of the central range of hills does not contain so much of undulating upland, and is more favoured by tanks and rivers or streams. The Pennar river runs right across the eastern portion of the eastern part of the taluk.

Climate: The taluk, being a continuation of the Mysore Plateaux enjoys a temperate climate.

The average rainfall is about 23 inches, the most rainy months being August, September and October. The distribution of rainfall is as follows:—

January	0.10"	July	2.37"
February	0.12"	August	2.90"
March	0.15"	September	5.06"
April	0.81"	October	4.29"
May	2.68"	November	2.03"
June	2.22"	December	0.31"

Irrigation sources: The taluk is mostly dependent on rainfall and tanks which get filled up by the rains, while the small rivers are for the most part of the year dry and undependable. The tanks supply water only for about four months of the year. So most of the cultivated area is under dry cultivation, and the small wetland area depends on tanks during part of the year and on wells for the rest of the year.

Crops: This taluk is more favoured by nature than other taluks of the district in the matter of climate and rainfall, and so supports more vegetation and better crops. In wetlands or garden lands ragi, paddy, sugarcane, chillies and jonna are the most important crops. In dry lands, ragi, horsegram, samai, groundnut, korra and redgram are grown.

Wastelands: The taluk contains blocks of wasteland areas (both cultivable and uncultivable areas) in almost all the villages. Uncultivable portions of the wastelands are found more in the eastern part of the taluk which is almost a series of undulating uplands with frequent occurrence of rocks and hills, than in the western part which is more favoured by nature.

1933 figures from the District Gazetteer show the following :-

Area in acres in the taluk			
Forests	...	...	24,009
Not available for cultivation	...	...	36,870
Cultivable waste other than fallow	...	...	37,924
Current fallow	...	...	61,579
Net area cropped	...	...	115,535
Total	...	...	<u>275,917</u>

This shows that about 27 percent of the total area of the taluk was wasteland (cultivable as well as uncultivable waste, excluding forests). Out of this about half or about 14 percent of the total area is cultivable wasteland.

Conditions in the taluk probably continue to be the same and there are vast stretches of wasteland in almost every village of the taluk.

Survey: The taluk was divided into 15 gridsquares. Each grid-square was covered by visits to at least four sampling spots. At every sampling spot details of topography, soil features and vegetation were noted. Village records were also consulted.

Soils: In general, all the wastelands either in the eastern or in the western part of the taluk are dry lands. Almost all the drylands in general and wastelands in particular are red loams and red sandy loams in the western half of the taluk, and gravelly soils for the most part and red

sandy leams in some places in the eastern half of the taluk. The depth of the soil varies from six inches to three feet in the western half of the taluk and from four inches to two feet in the eastern half, with a gravelly subsoil. There are also rocks and stony wastes absolutely unculturable in the eastern part. Water table is about 30 feet deep in most places of the taluk.

Vegetation: In the western part of the taluk in most of the wastelands there is an attempt (mostly successful in years of normal rainfall) to cultivate dryland crops like horsegram, korra and groundnut.

The predominant plants making up the natural flora of this part of the taluk are the following;—

Shrubs: 1. *Cassia auriculata* — in the major part of this area.

2. *Dodonea viscosa* and other scrub jungle type of vegetation along with the western slopes of the central range of hills.

Grasses: Grasses occur more frequently in this part of the taluk than in the other. The more important of the grasses are:—

1. *Aristida funiculata*
2. *Aristida depressa*
3. *Erograstis viscosa*
4. *Dicanthium annulatum*
5. *Aristida hystrix*
6. *Cymbopogon caesioides*

- Trees :**
1. *Acacia arabica*
 2. *Pongamia glabra*
 3. *Phoenix sylvestris*

The wastelands in the eastern half of the taluk are mostly garvelly and rocky uplands with poor vegetation which is mostly of a scrub jungle type. The following are the more important of the natural flora.

- Shrubs and trees:**
1. *Dodonea viscosa*
 2. *Euphorbia antiquorum*
 3. *Plectronia parviflora*
 4. *Butea frondosa*
 5. *Albizia amara*
 6. *Ixora parviflora*

- Grasses :**
1. *Aristida funiculata*
 2. *Cymbopogon depressa*
 3. *Erograstis viscosa*

Conclusions: Most of the wastelands in the western part of the taluk are cultivable. In fact, there is what is called 'Sivaijama' type of

cultivation in many of these lands in years of normal rainfall: the ryets pay some assessment to the Government and cultivate the land without permanently owning the land. Dry land crops like horsegram, groundnut, korra and samai can be successfully grown. But the greatest limitation is the poor rainfall which in some years proves disappointing.

The usual sources of irrigation are tanks, wells and spring channels from the beds of rivers. The third source is very limited and the tanks are useful only to lowlying wetlands and are for the most part of the year dry. Wells can serve some portion of the wastelands for gardenland cultivation wherever feasible and for supplementing the scanty rainfall. Digging of deep and big wells can be encouraged from which water can be pumped by oil engines or by electricity, if made available. Another way of bringing more land under irrigation and cultivation is by laying dams across the river Pennar and other streams.

The big block of cultivable wastelands occurring in many places in this part of the taluk can very well be utilised by land colonization schemes. Cropping of the smaller block of the cultivable wastelands adjacent to villages can be encouraged by substantial subsidies or loans to the neighbouring ryots for the purchase of implements and cattle, digging wells and for other facilities, and by other concessions.

Most of the wastelands of the eastern part of the taluk are gravelly and rocky uplands and are therefore uncultivable. There are pockets of useful areas (for example, near Budili and Palasamudram) which are sandy loams where deep and big wells can be dug and the water pumped by oil engines or electrical motors. Ragi, chillies, jonna and sometimes paddy can be grown in these pockets.

Either in the eastern or in the western part of the taluk, wherever it is not possible for the ryots to grow crops either because of the distance from the village or for other causes, the blocks of wastelands can be best utilised by growing fuel cum fodder trees by the Forest Department or by any other suitable agency.

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