

Irrigation and Agriculture System in Moradabad TEHSIL

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Agriculture is the main source of livelihood of people in India. Only 30.75% of the net sown area of Moradabad TEHSIL is under irrigation. In distribution of irrigation water supply plays an important role. Rainfall in the months of June, July and August is maximum. There is a deficiency of rainfall in the month of October.

Irrigation:

Agriculture is the main source of livelihood of people but it suffers from inadequacy and other drawbacks and insufficiency of irrigation. Only 30.75% of the net sown area of Moradabad TEHSIL is under irrigation. The spatial distribution of irrigation water varies widely in the area and the means of irrigation are different in different areas. The irrigation has played a dominant role in boosting its agricultural prosperity particularly there is a wide sub – areal and local level variation in irrigated percentage. This area mostly ranges between very in irrigation resources which partly explained by their lesser irrigational needs.

Wells are the principle source of water supply and irrigation in the Moradabad TEHSIL. The sandy soil makes the construction of wells difficult and expensive. A large proportion the cultivated area in the Rabi season is being sown wheat for which the rub soil after a regular wet monsoon season is found sufficient. No sufficient means of irrigation is provided by the Government the poor resident of this

TEHSIL cannot afford the heavy expenses of construction the wells etc.

Quality of Underground Water for Irrigation

The quality of ground water is equally important as the quantity is influencing the cropland pattern. “The food and associated agriculture problem of India are thus interrelated and are the results of the interaction of various factors, like high growth rate of population, rapid urbanization, technological gaps in agriculture, shortage of facilities, defective land tenure system uneconomic holdings, lack of capital to finance agriculture so as to improve the input – output ratio etc.”

As the TEHSIL is a small fraction of the country therefore, every environment factor is affecting the agrarian activities on the agriculture land use generally in the same manner throughout the TEHSIL. Various climate elements like soil, temperature and its stratification within the soil, soil moisture, dew, evapo –transpiration, visible and infra-red radiation etc., invariably affect crop production. These elements are responsible for a rich or poor type of

agriculture. In the light of the above it does not seem necessary to give the agriculture land use of all the 691 villages of Moradabad TEHSIL. The agricultural land use of one representative village will be sufficient for the purpose.

Conditions of Agricultural Land Use of Kharif Season throughout the Tehsil

When Rabi crop have been harvested in the months of March and April, mostly field a lie parched and uncultivated in the month of May and June. In the second week of June when the first monsoonal rain falls, the farmer ploughs their fields are sown after two or three hurried ploughing.

Rainfall in the Kharif Season

Crop which require high temperature and large supply are grown in the kharif season. In order to have a good kharif crop a heavy rain in every July is invariably necessary. If it does not occur by the first week of July, rabi cropped area. Generally kharif crops are entirely dependent on the monsoon conditions and require regular and definite rainfall in the months of June, July and August at a intervals of about ten days. Heavy rainfall in the months of September and October is injurious to kharif crop and the production is considerably low. The rainfall in the kharif season in the year 2012 is given table:-

Rainfall in Kharif Season (2012)

Month	Rainfall in m.m	Rainy Day
June	208.9	9
July	417.9	13
August	728.4	14
September	86.8	10

October	0.0	0
Total	1442	46

Source: From rainfall register of Nazir, TEHSIL head quarter Moradabad.

Conditions of Agricultural Land Use of Rabi Season Throughout The Tehsil

The season of rabi begins in October when the rain are over. Rabi crop are harvested in the month of March and April. In this season those crops are grown, which requires cooler weather a moderate supply of water and slightly higher temperature at the one of ripening.

Season of Rabi Crops

The ploughing for rabi corps usually begins in when kharif has matured. Land is left uncropped throughout the kharif and constant ploughing given up to the middle of October. The fallow or asari fields hold enough moisture and nitrate. The cultivators plough land roughly. Up to the lime of swung fields are thoroughly. "The fields are not ploughed with as much care as those which have been ploughed from August. The ploughing is very difficult in the khaddar, where land stays wet till late in early rabi season and fields are mostly left unsown.

Rainfall and Rabi Crop

The kharif rainfall has considerable effect on rabi crop. For rabi crop sufficient moisture is left in the soil after September rain. It there is a prolonged break in September and the rains do not occur in the last week of September, the soil may be dry for sowing. In that case only those fields which scure sufficient moisture are sown. Excess rain do not cause harm to rabi crop. If the rainfall is well distributed in the months of

December and January helps in increasing the field of the rabi crops.

Rainfall in Rabi Season (2012)

Month	Rainfall in m.m.	Rainy Day
November	0.0	-
December	0.6	-
January	34.3	2
February	79.9	3
February	2.9	1

Total	117.6	6
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Source: Rainfall register of Nazir, TEHSIL H.Q. Moradabad.

A deficiency or excess of rainfall during the month of September and October has a market effect on total rabi area. If the rainfall is heavy or considerably low during the months September or early October the cultivation of rabi crop is hampered in rural area.

References

Agarwal, R.N. & Mehrotra, C.L., (1952) Soil survey and soil work in Uttar Pradesh, Vols & II

Ahmad, E., Geography Essays.

Allan, R.G., (1940), An out line of Indian Agriculture.

Banerjee, B., Essay on agricultural geography.

Bateman, D.I., (1966) agricultural in regional Economy, Jl. of agric. Econ. 17, 22-29

Blaikie, P.M., (1971) Spatial organization of Agriculture in some north Indian Villages: Part I, Trans, Inst. Brit. Geogr. 52, 1-40.

Buck, J.I., (1937) Land utilization in China, 3 vols., London.

Buckley, R.B., (1904) Irrigation work of India.

Burns, W., (1944) Possibility of agricultural Development in India.

Burrard, S.G., Geological Survey of India.

Chatterjee, S.P., (1945) Land utilization in District 24, Pargana, Bengal, Calcutta.

Coopock, J.T., (1962) Land use and land classification. In classification of agriculture land In Bratain Agric. Ld. Serv. Tech. Rep. 8, 65-80.

Dobby, E.H.G., Monsoon Asia Volume v.

Gangulee, B., (1934) Trends of Agriculture and population in the Ganges valley.

Gangulee, N., (1929) Problems of rural India.

Graham, F.H., (1944) Natural principles of land use.

Harris, D.G., (1923) Irrigation in India.

Haward, A., (1924) Crop production in India.

Ray Chaudhary, S.P., (1966) Land and soil.

Shafi, M., Land utilization in Atruli TEHSIL.

Singh, R.P., (1978) Rohilkhand region, A study in resource-regions and development planning unpublished thesis, Rohilkhand University, Bareilly.

Voelcker, J.A. , (1893-97) Report of improvement Indian Agriculture.

Wadia, D.N., Geology of India.