



KrishiKosh (कृषिकोश)

(/) An Institutional Repository of Indian National Agricultural Research System



Advanced Search (/advanced-search)

[Krishikosh \(/\)](#) / [Birsa Agricultural University, Ranchi \(/handle/1/93542\)](#) / [Thesis \(/handle/1/93550\)](#)

Please use this identifier to cite or link to this item: <http://krishikosh.egranth.ac.in/handle/1/5810019676>

Authors: Singh, Bijay Kumar (/browse?type=author&value=Singh%2C+Bijay+Kumar)

Advisor: Oraon, P.R. (/browse?type=author&value=Oraon%2C+P.R.)

Title: STUDY OF AGROFORESTRY PRACTICES IN BHANDRA BLOCK OF LOHARDAGA DISTRICT WITH RESPECT TO SOCIO-ECONOMIC ASPECT

Publisher: Birsa Agricultural University, Kanke, Ranchi, Jharkhand

Language: en_US

Type: Thesis

Pages: 101

Agrotags: null

Keywords: STUDY OF AGROFORESTRY PRACTICES IN BHANDRA BLOCK OF LOHARDAGA DISTRICT WITH RESPECT TO SOCIO-ECONOMIC ASPECT

Abstract: In the present study an attempt has been made to investigate the "Study of agroforestry practices in Bhandra Block of Lohardaga District with respect to socio-economic aspect". A survey was conducted in four Panchayats of Bhandra Block of Lohardaga district from July 2014 to June 2015. These Panchayats are Bhandra, Bhita, Jamgain and Baragain. The objectives are to survey and identify the existing agroforestry practice, to study growth performance of different components in existing agroforestry practices and to assess the socio-economic impacts on the farmers. Study area surveyed with the help of questionnaire using stratified random sampling technique for the determination of socio-personal-economic characteristics of the respondents i.e. population, age, caste, size of family, type of house, educational status, farming system, monthly income, size of land, source of fodder, mode of cattle feeding, cropping pattern, agroforestry practices, height and diameter of trees economics and agroforestry system etc. The maximum number of respondents belongs to under age class 30-40 and repentant two castes namely Scheduled tribe and Backward caste which were dominant caste in all the Panchayats. The maximum 51.25% of respondents belong to medium size family and minimum 13.75% in large size family. The descending order of house type was

kutch>mixed>pucca. The educational status of respondents was maximum 33.75% of intermediate followed by 26.25% in high school and minimum was 10% in illiterate. The respondents are engaged in horticulture, agroforestry, cultivation in fallow land, and in other purposes. The percentage of monthly income of respondents was maximum 32.50% under range of Rs.3001-5000 followed by 30.00% in rang Rs.1001-3000 25% in Rs. 5001 to 7000 and minimum 12.50% in Rs.7001-9000. The tree species like *Artocarpus heterophyllus* *Azadirachta indica*, *Dalbergia sissoo*, *Gmelina arborea*, *Leucaena leucocephala*, *Melia azadarech*, *Syzygium cumini*, *Tectona grandis*, etc were found in agrisilvicultural system. In agrihorticultural system like *Artocarpus heterophyllus*, *Litchi chinensis*, *Mangifera indica* and *Syzygium cumini* and in silvipastoral system tree species are *Dalbergia sissoo* and *Mangifera indica*.whereas, in homegarden system tree species like *Tectona grandis*, *Dalbergia sissoo*, *Gmelina arborea*, *Azadirachta indica* and fruit species *Artocarpus heterophyllus*, *Litchi chinensis*, *Mangifera indica*, *Syzygium cumini* were observed. The major agricultural crops Paddy, Maize, Ginger, Chilly and Kacchu in kharif season whereas, Wheat, Mustard, Pea, Tomato, Onion and Potato in rabi season grown under agroforestry system. In agrisilvicultural system the *Gmelina arborea* had attained maximum height (8.18 m) followed by *Azadirachta indica* (7.41 m) and minimum height in *Tectona grandis* (6.16 m). In case of diameter the maximum diameter was observed in *Leucaena leucocephala* (16.20 cm) followed by *Artocarpus heterophyllus* (15.39 cm) and minimum in *Tectona grandis* (9.70 cm). Among the species the maximum volume was found in *Leucaena leucocephala* (0.14 m³) followed by *Azadirachta indica* (0.13 m³) and minimum in *Tectona grandis* (0.05 m³). In agrihorticultural system *Artocarpus heterophyllus* had attained maximum height (7.08 m) followed by *Syzygium cumini* (6.92 m) and minimum height in *Litchi chinensis* (4.28 m) and the maximum diameter was observed in *Syzygium cumini* (15.61 cm) followed by *Artocarpus heterophyllus* (12.13 cm) and minimum in *Mangifera indica* (10.30 cm). Among the species the maximum volume was found in *Syzygium cumini* (0.13 m³) followed by *Artocarpus heterophyllus* (0.10 m³) and minimum in *Litchi chinensis* (0.04 m³). In silvipastoral system *Dalbergia sissoo* had attained maximum height (6.34 m) and minimum height was found in *Mangifera indica* (4.33m). In case of diameter the maximum diameter was found in *Dalbergia sissoo* (10.51 cm) and minimum in *Mangifera indica* (9.96 cm). Among the species, the maximum volume was found in *Dalbergia sissoo* (0.06 m³) and minimum in *Mangifera indica* (0.03 m³). In homegarden system *Gmelina arborea* had attained maximum height (8.87 m) followed by *Artocarpus heterophyllus* (7.17 m) and minimum height in *Litchi chinensis* (4.21 m) and the maximum diameter was observed in *Syzygium cumini* (15.15 cm) followed by *Artocarpus heterophyllus* (14.43 cm) and minimum in *Tectona grandis* (9.73 cm). Among the species, the maximum volume was found in *Gmelina arborea* (0.16 m³) followed by *Syzygium cumini* (0.12 m³) and minimum in *Litchi chinensi*. The maximum yield of agricultural crop was Paddy 24.17 (qha-1), Wheat 19.9(qha-1), in agrisilvicultural system and tuber crop Potato 14.85(qha-1) under homegarden system. The maximum net return from tree produce ha-1year-1 was with the tree species *Gmelina arborea* (Rs. 28,875.00), *Mangifera indica* (Rs.23,050.00) and *Tectona grandis* (Rs.27,520.00) in agrisilvicultural, agrihorticultural and homegarden system, respectively. The benefit cost ratio has been calculated and found higher for *Tectona grandis* (3.01) based in agrisilvicultural system, *Artocarpus heterophyllus* based (2.02) in agrihorticultural system, *Dalbergia sissoo* based (2.44) in silvipastoral system and in homegarden system, the maximum B:C ratio was found in *Tectona grandis* based agroforestry i.e. (3.07).

Description: STUDY OF AGROFORESTRY PRACTICES IN BHANDRA BLOCK OF LOHARDAGA DISTRICT WITH RESPECT TO SOCIO-ECONOMIC ASPECT

Subject: Silviculture and Agroforestry

Theme: STUDY OF AGROFORESTRY PRACTICES IN BHANDRA BLOCK OF LOHARDAGA DISTRICT WITH RESPECT TO SOCIO-ECONOMIC ASPECT

These Type: M.Sc

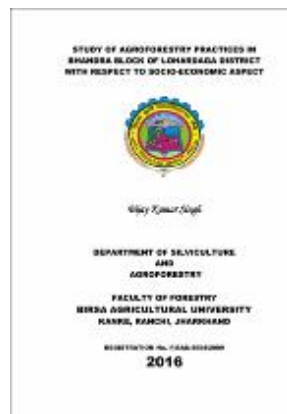
Issue Date: 2016

Appears in Thesis (/handle/1/93550)

Collections:

Files in This Item:

File	Description	Size	Format
1559 Bijay Kumar Singh.pdf		7.26 MB	Adobe PDF



[View/Open \(/displaybitstream?handle=1/5810019676\)](/displaybitstream?handle=1/5810019676)

[Show full item record \(/handle/1/5810019676?mode=full\)](/handle/1/5810019676?mode=full)

[📊 \(/handle/1/5810019676/statistics\)](/handle/1/5810019676/statistics)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.