



Analysis of the production gap of button mushroom (*Agaricus bisporus*) in
between Directorate Mushroom Research Shimla a (H.P.) and Kashi
Mushroom Production Centre, Banaras (U.P.)

A DISSERTATION SUBMITTED



FOR THE AWARD OF DEGREE OF
MASTER OF SCIENCE

IN

RURAL TECHNOLOGY

SUBMITTED BY

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M.SC. IV Semester

ROLL NO: 22049102; ENROLLMENT NO: GGV/22/10702

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2024



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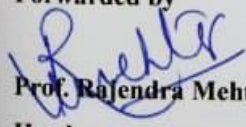
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CHAPTER-1 INTRODUCTION

The fruiting bodies of some fungi, a lower class of plants, are known as “Mushrooms.” The bodies of fungi, with the exception those that carry spores are undifferentiated and devoid of chlorophyll. Mushroom fruiting bodies are spore-bearing fungi with fleshy structures. They are filled with spores, which serve as the fungi’s seeds, much like the seeds of higher plants.

Since the beginning of time, humans have been attracted to mushrooms, which appear after rain in a variety of sizes, colours, and shapes. Even when people lived as hunters and gatherers, mushrooms were sure to catch their interest. Despite the fact that man first practiced agriculture 10,000 years ago, the growing of mushrooms is a relatively recent phenomenon that just began to gain popularity globally in the last century, the Chinese were reportedly the first to artificially cultivate tropical and sub-tropical mushrooms thousands of years back, but commercial production started in Europe with button mushrooms in caves during the 16th and 17th centuries [1].

These fungi, which are minuscule in size develop a mycelium throughout their growth stage and spread via saprophytic mode, producing spores in the gills of their fruiting bodies, or what we call mushrooms, for dispersal, completing their life cycle. In a favourable climate and on suitable substrates, the disseminated spores produce hyphae or mycelium, and the life cycle process continues. Because they lack chlorophyll, mushrooms cannot photosynthesize, or use sunlight’s energy to create energy, the way green plants can. The majority of mushrooms that grow in forests are deadly if eaten raw, and people frequently get sick After eating such mushrooms. Mushrooms are a good source of protein, vitamins, and minerals and are known to have a broad range of uses both as food

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Evaluation of crop under *Gmelina arborea* based farm
forestry system



DISSERTATION

SUBMITTED FOR FULFILLMENT

FOR THE AWARD OF DEGREE

IN

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Supervised to

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CHAPTER - I INTRODUCTION

Agroforestry is gaining importance as land use practice in different of india with recent emphasis of sustainable agriculture. Tree basad land use practice could accompany both tangible (viz., improved production of fluid, fodder and other product) and intangible (carbon sequestration, hydrological balance, soil fertility recovery and slop stability) benefits securing the interests of both global communities. Several promising agroforestry practices have been evolved in india (Puri and Nair, 2004). Agrisilviculture is one such system, where agriculture crop are grown in association with trees. The fast growing , multipurpose and indigenous trees, which could combine very well with crop and provide maximum economics returns in quickest possible time is preferred under agroforestry practice *Gmelina arborea Roxb.* Is one such moderately fast growing indigenous tree species of humid and sub-humid tropics of India usually raised for timber and fire/pulpwood. The timber has almost similar has almost similar properties of strength and durability as of teak (*tectona grandis*) wood, hence popularly termed as white teak. The tree has assumed great importance in both regular plantation and social forestry programs as it can be economically harvested in 10-12 years (Gupta, 1993). Due to easy marketability, fast growing to e intensively practice the species under agroforestry and farm forestry programs in chhasttisgarh, where the productivity is quite low in many regions. *Gmelina arborea* under agri silviculture system could improve the biomass production and increase the income of farmers besides fulfilling their basic needs of firewood and fodders. The biomass production is largely driven by interplay between nutrients and water in an agro forestry system. Nutrient concentration within the ecosystem usually depend upon a functional balance in their intra system cycling. Understanding of nutrient accumulation and storage process will help in evolving suitable strategies of nutrient management for maximizing biomass production in agro forestry system.



A
DISSERTATION

ON

“ABUNDANCE, HABITAT ASSOCIATION AND BEHAVIORAL
ECOLOGY OF COMMON EMIGRANT BUTTERFLY (*Catopsilia
pomona*) AT THE CAMPUS OF GURU GHASIDAS
VISHWAVIDYALAYA, BILASPUR, CHHATTISGARH”

DISSERTATION REPORT SUBMITTED FOR THE
PARTIAL FULFILLMENT OF REQUIRED FOR THE AWARD OF
DEGREE OF

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CHAPTER-1 INTRODUCTION

Butterflies are the most tantalizing and beautiful creatures. Among the insects, they are often regarded as flagship species because of their easy recognition, colorful look and their association with flowering plants. Furthermore, they have aesthetic value (Scott 1986). Butterflies along with moths belong to order Lepidoptera. Butterflies are used as an indicator species for biodiversity and conservation studies because they are sensitive to microclimatic changes in the environment, light levels in particular (Kremen 1992). Successful and effective conservation management of butterflies depends on sound knowledge of their life history and host plant requirements in the wild (Atluri *et al* 2004).

Resource availability and quality is an important aspect in the life history of animal life. The entire life cycle stages of *C. Pomona* are divided into egg, five larval stages, pupal stage and adult stage. Eggs of *C. pomona* are spindle shaped laid singly on the surface of fresh tender leaves. Freshly laid eggs are creamy white and within a day their live colour change to yellowish white which remain till the time of hatching. Eggs have thin but tough shell with raised ribs or pits (reticulations). At the top of each egg there is a micropyle, a small pit at which point sperms enter the egg (Pandey 2006). Larval development consists of five instars. The Common Emigrant butterfly, *Catopsilia pomona*, is a notable species within the Pieridae family, known for its distinctive yellow coloration and widespread distribution across tropical and subtropical regions. Understanding the population dynamics and behavioral ecology of this butterfly is crucial for several reasons, including conservation efforts, ecological studies, and biodiversity assessments.

The first instar, soon after emergence, feeds on empty shells and then on epidermis of leaflets. The freshly hatched larva is cream in colour. After few hours of feeding, colour changes to pale



**A SURVEY ON NTFPs IN SOME SELECTED
VILLAGES OF KONDAGAON DISTRICT OF
CHHATTISGARH**

A DISSERTATION

ON

**DISSERTATION REPORT SUBMITTED FOR THE
PARTIAL FULLFILMENT OF THE REQUAIED FOR THE
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MASTERS OF SCIENE IN RURAL TECHNOLOGY

(M.Sc. RT)

**UNDER THE SCHOOL OF STUIEDS OF
INTERDISCIPLINARY EDUATION AND RESEARCH**



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CHAPTER - I

Introduction

Forests cover 31 per cent of the world's land surface, just over 4 billion hectares (corresponding to 0.6 ha per capita), which includes Primary forests (36 % of total forest area), Plantation forests (7 % of total forest area) and other naturally regenerated forests (57 % of total forest area) (Anonymous, 2020). Forest produce can be divided into several categories. But, from the point of view of usage, forest produce can be categorized into two types i.e. Timber and Non Timber forest products. Timber forest products mainly include the woody portion of tree, which is widely used as a fuel and raw material for home construction and furniture making. While non timber forest products refers to a wide array of economic or subsistence material that come from forests, excluding timber

The term Non timber forest products (NTFPs) appears to have been coined, for the first time, by De beer and Macdermott in 1989. According to FAO, NTFPs defined as all goods for commercial, industrial or subsistence use derived from forest and their biomass. Non-timber forest products (NTFP) are also known as minor forest produce (MFP) or non-wood forest produce (NWFP)

The Recorded forest cover in Chhattisgarh is 55,717 sq. km. which is 41.21% of its geographical area (Anonymous, 2021). In Chhattisgarh, where 11,185 villages out of a total of 19,720 villages are forest fringed, the importance of NTFPs in the livelihood security of the rural population has led the State government to declare seven NTFPs such as tendu leaves, saal seed, harra, gum (khair, dhawara, kullu and babool) as nationalized and establish the CGMFP Federation with an objective to promote trade and development of these minor forest produces (MFPs) in the interest of MFP collectors, mostly tribals. The remaining other MFPs were left free for trade because their distribution and production varied with respect to time and space. As a result, villagers would get assured minimum prices for nationalized NTFPs, but low collection prices and often exploitation by middlemen for the non-nationalized NTFPs due to inadequate market facility development in the remote rural areas. The



**“Ghanjeevamrit : A Sustainable Approach to
Organic Farming”**



**A DISSERTATION
SUBMITTED FOR PARTIAL FULFILLMENT
FOR THE AWARD OF DEGREE
MASTER OF SCIENCE IN RURAL TECHNOLOGY**

SESSION : 2023-2024

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Chapter - 01

Introduction

The concept of Ghanjeevamrit can be traced back to ancient Indian agricultural practices. These methods, documented in texts like the Vedas and the writings of sages such as Parashara and Kashyapa, emphasize a harmonious relationship between farming and nature. The use of natural inputs such as cow dung, cow urine, and various plant extracts forms the backbone of these age-old techniques. In modern times, the revival of these practices has been championed by agriculturists like Subhash Palekar, who popularized the Zero Budget Natural Farming (ZBNF) movement, advocating for the use of Ghanjeevamrit as a cornerstone of this approach.

Ghanjeevamrit, a term rooted in Sanskrit, translates to "solid nectar of life". This organic manure is a concentrated, solid form of the liquid Jeevamrit, widely used in traditional Indian agriculture. Ghanjeevamrit embodies the principles of sustainable farming and is an essential component of natural farming practices, aiming to rejuvenate soil health and boost crop productivity without the adverse effects of chemical inputs.

The use of organic fertilizers dates back centuries, with ancient Indian agricultural practices emphasizing the symbiotic relationship between nature and farming. Traditional farming techniques heavily relied on natural resources, ensuring soil health and fertility without synthetic chemicals. Ghanjeevamrit, rooted in these age-old traditions, has been revitalized in recent decades as part of the organic farming movement spearheaded by advocates like Subhash Palekar, the proponent of Zero Budget Natural Farming (ZBNF).

The primary ingredients of Ghanjeevamrit include cow dung, cow urine, jaggery, gram flour, and soil. Each component contributes specific nutrients and microbial cultures that enhance the overall efficacy of the manure. The quality of these ingredients, particularly the cow dung and urine, is crucial, as they should ideally come from indigenous, non-commercial breeds of cows known for their superior microbial and nutrient content.

Ghanjeevamrit is a cornerstone of organic farming practices. Its use helps maintain soil fertility without relying on synthetic chemicals, promoting a more sustainable and environmentally friendly approach to agriculture. By fostering a healthy soil ecosystem, Ghanjeevamrit supports robust plant growth and resilience against environmental stresses.



**Analysis of Land Use Change Detection of Bilaspur tahsil with help of
Landsat Satellite and Remote sensing**



DISSERTATION
SUBMITTED FOR FULFILLMENT of
AWARD OF DEGREE
MASTERS OF SCIENCE
IN
RURAL TECHNOLOGY
(SESSION 2023-24)

SUBMITTED BY
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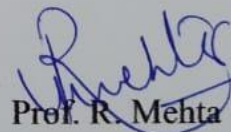
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Prof. R. Mehta

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CHAPTER -1 INTRODUCTION

This dissertation is organized into six chapters. Chapter 1 introduces the research topic, outlines the problem statement, and states the purpose and significance of the study. Chapter 2 reviews the existing literature on change detection methods, remote sensing technologies. Chapter 3 describes the research methodology, including data collection, processing, and analysis techniques. Chapter 4 presents the results of the study, including the performance evaluation of the proposed change detection framework. Chapter 5 discusses the implications of the results, compares them with existing research, and highlights the study's contributions and limitations. Finally, Chapter 6 concludes the dissertation with a summary of the findings, recommendations for future research, and potential applications of the study.

The introduction of a dissertation on change detection through Landsat 8 and 9 digital elevation model data is a critical component that sets the stage for the entire research study. Satellite technology has revolutionized the way we acquire and analyse terrestrial surface data, making it possible to generate digital elevation models (DEMs) by exploiting stereographic, interferometric, radar-grammatic, and lidar principles across multiple spatial and temporal scales (Sagar, 2020) (Lakshmi & Yarrakula, 2019) In the last decade, the availability of freely available remote sensing data from satellite sensors like Landsat has led to a dramatic increase in research using satellite data in the field of landscape ecology. (Crowley & Cardille, 2020) Specifically, the use of remote sensing and geographic information systems has been increasingly employed to improve data collection methods in geological and environmental applications, overcoming the limitations of traditional field data collection. (Attwa et al., 2021)

The digital elevation models derived from sources like the Shuttle Radar Topography Mission have become a valuable tool for geoscientists, enabling them to define critical watershed characteristics such as flow pathways, confluences, and dispersions, as well as estimate linear relationships within these networks. (Attwa et al., 2021) (Hazbavi, 2018) Moreover, high-resolution DEM data can be utilized to detect active channels and estimate river floodplain cross-sectional areas, providing valuable insights for watershed health assessment. (Attwa et al., 2021)

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The geomorphology knowledge gained from remote sensing data interpretation is essential for recognizing landform types, strike and dip attitudes, orientation of highlights and shadows, drainage patterns, and the relative susceptibility of formations to natural hazards, all of which



**A study on land use pattern by rice growing
farmers on the basis of socio-economic status in
Korba district of Chhattisgarh**

छत्तीसगढ़ के कोरबा जिले में सामाजिक-आर्थिक स्थिति के आधार पर चावल
उत्पादक किसानों द्वारा भूमि उपयोग आदर्श पर एक अध्ययन



Dissertation submitted in
Partial fulfilment for the Degree of

MASTER OF SCIENCE
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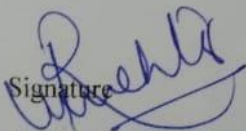


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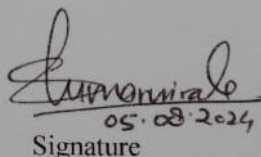
This is to certify that the work incorporated in the dissertation "**A study on land use pattern by rice growing farmers on the basis of socio-economic status in Korba district of Chhattisgarh**" is a record of work carried out by **Mr. Hitesh Kurrey** (Enrolment No. GGV/22/10708) under my supervision for the award of the Degree Master of Science in Rural Technology.

To the best of my knowledge and belief the report-

- embodies the work of the candidate themselves,
- has duly been completed,
- fulfils the requirement of the ordinance relating to the M. Sc. degree of the university and
- is up to the desired standard both in respect of contents and language for being referred to the examiners


Signature

Head of the Department with Seal


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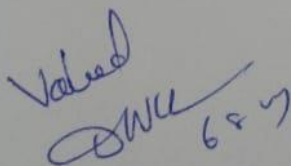




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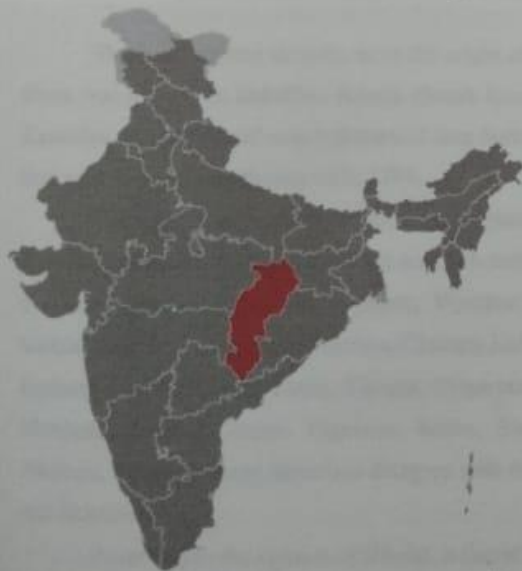


Chapter 1

Introduction

Chhattisgarh is a landlocked state in central India. It is the ninth largest state by area, and with a population of roughly 30 million, the seventeenth most populous. It borders seven states—Uttar Pradesh to the north, Madhya Pradesh to the northwest, Maharashtra to the southwest, Jharkhand to the northeast, Odisha to the east, Andhra Pradesh and Telangana to the south. Formerly a part of Madhya Pradesh, it was granted statehood on 1st November, 2000 with Raipur as the designated state capital.

Chhattisgarh is one of the fastest-developing states in India. Its Gross state domestic product (GSDP) is ₹5.09 lakh crore (US\$64 billion) (2023–24 est.), with a per capita GSDP of ₹152,348 (US\$1,900) (2023–24 est.). A resource-rich state, it has the third largest coal reserves in the country and provides electricity, coal, and steel to the rest of the nation. It also has the third largest forest cover in the country after Madhya and Arunachal Pradesh with over 40% of the state covered by forests



Location of Chhattisgarh in India

Country	India
Region	central India
Before was	part of Madhya Pradesh
Formation	1 st November 2000
Capital	Raipur
Districts	33 (5 divisions)

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**STUDIES ON OCCURRENCE OF ARBUSCULAR MYCORRHIZAL FUNGI IN
HYGROPHILLA AURICULATA AND *STROBILANTHES PAVALA***



A DISSERTATION
SUBMITTED FOR PARTIAL FULFILLMENT
FOR THE AWARD OF DEGREE OF
MASTER OF SCIENCE IN RURAL TECHNOLOGY

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Dr. Bhaskar Chaurasia
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Submitted by
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M.Sc. IV Semester

2024

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CHAPTER I

INTRODUCTION

A mycorrhiza is a symbiotic association between a fungus and the roots of a vascular plant. In this association, the fungus colonizes the host plants roots, either intracellular as in arbuscular mycorrhizal fungi or extracellularly as in ecto-mycorrhizal fungi. They are an important component of soil life and soil chemistry. Mycorrhiza refers to the association between plant roots and biotrophic mycorrhizal fungi, these mycorrhizal fungi form a network of filaments associated with plant roots and enable roots to absorb the nutrients from the soil (Douds et al., 1993). Moreover, this fungus-plant alliance stimulates plant growth and accelerates root development (Jansa et al., 2002).

This type of association occurs in all agronomic crops and basically falls in three categories (Wilcox, 1991): (i) Ericaceous mycorrhizae, (ii) Orchidaceous mycorrhizae, (iii) Arbuscular mycorrhizal fungi.

Ericaceous mycorrhizae: This type of association is found in plants of the order Ericales. Arbuscules are not formed. This is further divided into 3 types: (i) Ericoid mycorrhizae, (ii) Arbutoid mycorrhizae, (iii) Monotropoid mycorrhizae.

Orchidaceous mycorrhizae: Mycorrhizal fungi penetrate the host cells and form intracellular hyphal coils called peloton coil. Majority of orchid Mycobionts are member of Basidiomycota, e.g. *Armillaria*, *Rhizoctonia*, *Tulasnella* etc. A striking exception has been the fungal partners of



**ASSESSMENT OF MILK ADULTERATION IN
BILASPUR CITY, CHHATTISGARH USING LOCAL
DAIRY MILK**



**A DISSERTATION SUBMITTED
FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE
IN
RURAL TECHNOLOGY**

SUBMITTED BY

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M.SC. IV Semester

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CHAPTER-I INTRODUCTION

Food Adulteration is an act of intentionally debasing a quality of food offered for sale either by a admixture or substitution of inferior substances or by the removal of some valuable ingredient, Food Adulteration takes into account not only for intentional addition and substitution or abstraction of substances which adversely affect nature, substances and quality of foods, but also their incidental contamination during the period of growth, harvesting, storage, processing, transport and distribution. "Adulterant" means any material which is employed for making the food unsafe and sub-standard or misbranded or containing extraneous matter;

Food is adulterated if its quality is lowered or affected by the addition of substances which are injurious to health and by removal of substances which are nutritious. This is defined as the act of intentionally debasing the quality of food offered for sale either by the admixture or substitution of inferior substances or by the removal of some valuable ingredient.

Food is declared adulterated if:

- A substance is added which depreciates or injuriously affects it,
- Cheaper or inferior substances are substituted wholly or in part.
- Any valuable or necessary constituent has been wholly or in part abstracted.
- It is an imitation.
- It is coloured or otherwise treated, to improve its appearance or if it contains any added substance injurious to health.
- For whatever reasons its quality is below the Standard

Adulterated food is dangerous because it may be toxic and can affect health and it could deprive nutrients essential for proper growth and development. Food Adulteration is an act of intentionally debasing the quality of food offered for sale either by the admixture or substitution of inferior substances or by the removal of some valuable ingredient, Food Adulteration takes into account not only the intentional addition or substitution or abstraction of substances which adversely affect nature, substances and quality of foods, but also their incidental contamination during the period of growth, harvesting, storage, processing, transport and distribution.



A DISSERTATION ON
**INOCULUM PRODUCTION OF ARBUSCULAR
MYCORRHIZAL FUNGI UNDER HYDROPONIC SYSTEM**



2024

Submitted for the partial fulfilment of the requirements
for the award of the degree of

MASTER OF SCIENCE

IN

RURAL TECHNOLOGY

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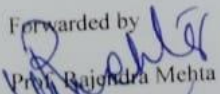
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Introduction

In today's world soil-based agriculture faces challenges from various man-made factors, including urbanization and industrialization (Jan et al., 2020). It may present severe obstacles to plant growth. Among them include the existence of nematodes and disease-causing organisms, inappropriate soil reactivity, unfavorable soil compaction, poor drainage, erosion-related deterioration, etc. (Biebel, 1958; Sardare and Admane, 2013). Moreover, A more widespread application of substances that depolymerize microtubules, such as pesticides and antifungal or antiparasitic chemicals, that are used in the production of crops and other products, has an adverse effect on people's health and causes the emergence of neurodegenerative illnesses (Feng, 2006; Saybasili and Akkentli, 2011; Patriche et al., 2011). Also, crop productivity has decreased due to the increased and careless use of chemical pesticides, which has also reduced soil fertility and microbial population (Tripathi et al., 2020; Pandey, 2022)

Therefore, in commercial production in recent years, hydroponics is typically used in regions with inadequate or inappropriate conditions for plant growth (Butler and Oebker, 1962). Hydroponics is a technique of growing plants without using soil (Savvas, 2003; Jan et al., 2020).

The word hydroponics is made of two different Greek words, i.e. 'Hydro' and 'Ponos' meaning 'water' and 'labour' respectively (Biebel, 1958; Sardare and Admane, 2013). The first known application of a water cultivation technique without a solid substrate was developed by Woodward in 1699 (Hewitt, 1965; Jones, 1982) which was later coined in the early 1930s by Dr. W. F. Gericke a researcher from the University of California who pioneered soilless plant cultivation (Gericke, 1940; Jones, 1982) after



**A
DISSERTATION**

**on
“A Study on Gender Based Chronotype Variability
among Ph.D. Research Scholars of GURU GHASIDAS
VISHWAVIDYALAYA BILASPUR, (C.G.)”**

**DISSERTATION REPORT Submitted for the
Partial Fulfillment of Required for the Award of
Degree of
Master of Science in Rural Technology
(M.Sc. RT)**



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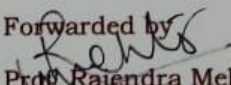


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CHAPTER-1

INTRODUCTION

Circadian rhythms – the cycles of our internal clock influence our daily activity and productivity. Achievements in academic studies [1], programming [2], and other domains are affected by circadian rhythms. Chronotype, or diurnal preference, is a person's tendency toward activity at certain times of day and is thought to be a natural characteristic of an individual [3]. Circadian typology or chronotype is a concept based on an individual's predilection to exhibit morning or evening trait, a property acquired because of the inter-individual variations in organising various biological and behavioural activities in a 24-hour period. Inter-individual differences in sleep-wake pattern, peak alertness times and diurnal preferences lie behind the phenomenon of morningness-eveningness [1]. Literature investigating the morningness-eveningness dimension is scarce especially in the context of Indian population. It is a little explored entity representing a novel, interesting topic of research for researchers/clinicians/educators.

Morning chronotypes (M-types) are individuals who exhibit morning tendencies like rising early in the morning and also who are at their best both physically and mentally in the early hours of morning [2]. Evening chronotypes (E-types) are individuals who prefer to get up late in the morning and stay awake till late night and also perform their best during late afternoon or evening [2]. The aforementioned M-type and E-type categories are regarded as the two extremes of a continuum, on which Intermediate type (I-type) or Neutral type (N-type) individuals represent the largest category. The sleep-wake pattern, preferred times of physical and mental performance and subjective alertness after arising and before going to bed of intermediate type persons are in between M-type and E-type. A combination of internal- (e.g., clock genes, cortisol and



**A COMPARATIVE STUDY OF CHANGE
DETECTION ALGORITHMS IN LANDSAT-8
AND 9 DATA AT BELHA TAHSIL IN ARC GIS**



A DISSERTATION

SUBMITTED IN THE FULFILMENT

FOR THE AWARD OF THE DEGREE

IN

MASTER OF SCIENCE IN RURAL TECHNOLOGY

SESSION 2023-2024

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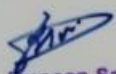


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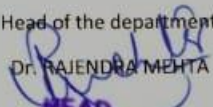
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CHAPTER- 1

INTRODUCTION

Change detection in remote sensing images denotes the process of detecting the land surface changes relying on geographically co registered multi-temporal remote sensing images which play an important and fundamental role in national governance systems to provide land cover change information. Made possible by advancements in satellite and manufacturing technology, automatic change detection methods are demonstrating their potential for a broad range of societal important applications, e.g., land use investigation, urban planning, environmental monitoring and disaster mapping. Remote sensing techniques offer an efficient, rapid method for monitoring construction land. Further, the advent of advanced remote sensing sensors and information transmission technologies has considerably improved the spatial resolution of optical remote sensing images. Traditional change detection approaches analyze the differences between image pairs to identify land cover and land use changes. Among them, the algorithms incorporate clustering or threshold segmentation for extracting hand-designed spatial-temporal features become mainstream approaches. These change detection approaches aim to address the problems of change detection applications using the latest deep learning techniques, taking advantage of a variety of network architectures such as single-branch dual-branch, and pseudo dual branch networks (no shared weights between two branches). However, the severe class imbalance problem between the changed and unchanged regions during training leads to a small percentage of ground truths on large-format remote sensing images, posing challenges to extracting change regions' contextual information using high-level features. In order to alleviate class imbalance problems, multiple studies added efficient modules on current change detection networks, e.g., recurrent neural network (RNN)

The shift in focus from changed areas to invariant regions yields several distinct benefits:

- In various applications, truth categories differ, complicating the application of change detection models trained with specific ground-truth category as an annotation for other applications. In comparison, invariant region detection utilizes stable invariant regions as ground-trusting categories, offering enhanced robustness and general ability.



A
DISSERTATION
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“Autorhythmometric Physiological Assessment
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DISSERTATION REPORT Submitted for the
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6.8.2024



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CHAPTER-1

INTRODUCTION

The human circadian rhythm is a body's internal clock which governs sleep-wake cycle. It is controlled by suprachiasmatic nucleus, a region located in the anterior section of hypothalamus area of the brain (Miller *et al.*, 1996; Palmero *et al.*, 2024; Czeisler *et al.*, 2007; Yamanaka *et al.*, 2020; Zou *et al.*, 2022). Every day, the so-called circadian rhythm which alternates between alertness and sleepiness, begins to function. The circadian rhythm varies from person to person because the endogenous oscillators (suprachiasmatic nuclei) and external variables (like light-dark cycle, social interactions and sleep-wake cycle) can synchronize the biological clock and drive the circadian rhythm. The uniqueness of circadian rhythm is because it enables an individual to become adapted to their daily lifestyle, which encompasses their environment, behaviors and utilization of resources (Senthilnathan *et al.*, 2019; Zou *et al.*, 2022). An extended duration of consistent exposure to a pattern of events can cause the human body to synchronize with the experiences, potentially transforming it into a 24 hour habit. This can lead to enhanced performances of the individual, resulting in individual differences in circadian rhythm. This phenomenon is called as synchrony effect (Palmero *et al.*, 2024; Senthilnathan *et al.*, 2019).

The daily internal clock of the body is synchronized by periodic exposure to light. For an environmental variable to be a successful zeitgeber (an environmental cue that can synchronize circadian clock), it must possess a significant difference between its day and night levels. As a result, most rhythms, including melatonin and core body temperature rhythms, have increased



**ESTIMATION OF VISUAL SOLID WASTE IN
ARPA RIVER BED UNDER BILASPUR CITY BY
USING GIS**



A DISSERTATION
SUBMITTED IN THE FULFILLMENT
FOR THE AWARD OF THE DEGREE
IN
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SESSION 2023-2024

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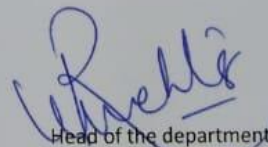
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This is to certify that the work contained in the thesis entitled "**Estimation of visual solid waste in Arpa Riverbed under Bilaspur city by using GIS**", submitted by Naveen, student Of M.Sc. (RT) IVth semester for the award of the degree of M.Sc. (Rural Technology), Department of Rural Technology and Social Development of Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur (C.G.) is a record of bonafide research works carried out by him under my direct supervision, and guidance. I considered that the thesis has reached the standards, and fulfilled the requirements of the rules, and regulations relating to the nature of the degree. The contents embodied in the thesis have not been submitted for the award of any other degree or diploma at this or any other university.


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*Valueed
6/4/23*



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1. Introduction:-

1.1 Broad Perspective Of Life On Earth Life

Earth, a planet of remarkable dynamism, has been influenced by countless years of geological and lithological changes. The planet's history, stretching back approximately 4.54 billion years to the rise of intricate life forms, showcases the enduring strength and flexibility of surface morphology (Wikipedia contributors, 2024). The surface of the Earth has experienced remarkable changes throughout its history, starting from the appearance of the initial single-celled organisms to the development of intricate natural system forms, and the subsequent proliferation of plant and animal species on both terrestrial and aquatic ecosystems. In spite of the various obstacles presented by alterations in climate patterns, movements of tectonic plates, and events of extensive extinction, the existence of life on our planet has exhibited an exceptional ability for adjustment and endurance, evolving in order to occupy novel ecological niches and flourish in a diverse array of habitats.

Throughout Earth's extensive history, there have been a multitude of catastrophic events that have significantly influenced its trajectory, including but not limited to mass extinctions and impacts from asteroids. Despite these challenges, life on this planet has demonstrated remarkable persistence and adaptability, culminating in the evolution of modern humans (*NEO Basics*, n.d.). In the current era of the Anthropocene, as we confront a myriad of complex challenges, delving into the intricate and lengthy history of life on Earth can offer profound insights into the resilience and adaptability of the diverse ecosystems that exist on our planet. Such an exploration can also serve as a guiding light, steering us towards a future that is more sustainable and harmonious with the natural world (Wikipedia contributors, 2024). The enduring saga of life on Earth, marked by surviving catastrophic events, showcases the intricate connection between nature and human society. Exploring this resilience offers valuable insights as we confront the challenges of the Anthropocene period. Understanding Earth's evolutionary journey provides essential wisdom for creating a sustainable future, drawing from the remarkable adaptability of ecosystems throughout history.

1.2 Nature Vs Culture



A CASE STUDY ON
UNNAT KRISHI ABHIYAAN PARISHAD SAGAR, MP
A DISSERTTION REPORT
SUBMITTED FOR THE
PARTIAL FULLFILMENT OF THE REQUAIED FOR THE AWARD OF
DEGREE OF
MASTERS OF SCIENE IN RURAL TECHNOLOGY
UNDER THE SCHOOL OF STUIEDS OF INTERDISCIPLINARY EDUATION
AND RESEARCH



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2024

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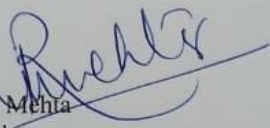


FORWARDING LETTER

Mr. **Pranabananda kar** student of M.Sc. Rural Technology, IV Semester Department of Rural Technology and Social Development has completed her Dissertation entitled “**A Case Study on Unnat Krishi Abhiyaan Parishad**” Under the guidance and supervision of Dr. **Pushparaj Singh** Professor Department of Rural Technology and Social Development, Guru Ghasidas Vishwavidyalaya, Bilaspur, C.G. India, in partial fulfilment of the requirement for the degree of M.Sc. Rural Technology.

The dissertation is forwarded to the examinee for evaluation.

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CHAPTER- 1

INTRODUCTION

Due to increased urbanization, the building of dams, rivers, and highways, as well as the deterioration of fertile ground as a result of soil salinity, and waterlogging, cultivable land is becoming increasingly scarce (Sultana et al., 2020).

Every person is aware of the overpopulation issue, which is getting worse daily. The amount of cropland is shrinking as a result of population growth. In India, marginal, small, and semi-medium farmers make up around 62%, 19%, and 12% of all farmers, respectively. We may use any space to enhance unit production by utilizing cutting-edge technologies that combine vertical and horizontal land with sunshine and other natural resources. Numerous food shortages around the world and the potential for shortfalls in supplies continue to encourage more intensive agricultural practices, such as multi-layer cropping. Thus, multi-tier farming will be well-suitable as it effectively uses solar energy, soil moisture, nutrients from different depths, and airspace. It is a self-sustaining system (Koley et al.2019).

Increased use of the subsurface, surface and vertical space is the goal of multi-layer farming. The tallest parts of this approach comprise foliage that is highly evaporatively demanding and exposed to bright light. The shorter, vegetated components need less shade and/or more humidity (Anonymous 2022).

Due to a large number of farmers and the limited quantity of cultivated land available, this farming method allows farmers to grow a variety of products, including fruits, vegetables, flowers, and medicinal plants, all at once. By doing this, marginal, tiny, and semi-medium farmers can make a reasonable living even with limited arable land (Singh, 2020). In a multi-tier system, crops ranging from tall trees to low-growing annuals that typically have diverse rooting patterns and complement one another are planted together in different canopy layers. Compared to traditional approaches, multilayer farming is more competitive. The same resources can be used by cultivators to grow four to five different crops simultaneously in a three-tiered arrangement (Saxena and Rai, 2022). A multi-tier cropping system is also advantageous for supplying insurance against market gluts of a single commodity, growing



Jeevamrit: A Sustainable Approach to Organic Farming



DISSERTATION

SUBMITTED FOR FULFILLMENT

FOR THE AWARD OF DEGREE

IN

MASTER OF SCIENCE IN RURAL TECHNOLOGY

Session 2023-2024

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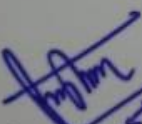


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Introduction

Jeevamrit is also known as Jeevamrut, Jivamrut and Jeevamrutha. Jeevamrit is also known as low-cost organic liquid manure, used in organic farming for sustainable crop production. Jeevamrit is a completely organic fertilizer and a great replacement of chemical fertilizers. It is made up of two words 'Jeevan' and 'Amrit'. The first word Jeevan means 'Life' and the second word Amrit means 'Medicinal potion'. According to agricultural view, Jeevamrit is for crop life. It is best culture for increasing the microorganisms which are present in the soil are responsible for increasing the fertility of the soil and the productivity of crops. It is very good source of biomass, natural carbon, nitrogen, phosphorous, calcium and other micronutrients which are essential for plant growth and developments an efficient plant growth stimulant that enhances the biological efficiency of crops, activate soil and to protect the plants from disease and also increase the nutritional quality of crops. It is a cost effective and eco-friendly bio-inoculants having great potential to enhance agriculture production in a sustainable way (G. chawla *et al*). Jeevamrit is an organic fertilizer prepared by fermenting the mixture of cow/buffalo dung and urine. It provides nutrient to the plants and improves the activity of beneficial microorganisms and earthworm in soil. During the fermentation process for bacteria present in the cow dung and urine uses the nutrient from the flour dust and multiplies in their numbers. (Asthma bhusan and Laxman khatri *et al*).

Jeevamrit is liquid organic manure that includes macro and micronutrients required by crops and are a rich source of natural carbon and biomass. Jeevamrit has shown to be more effective than other types of manures and may be utilized together with other manures. Such fertilizers are cheap, ecologically sound bio-inoculants with a high potential for increasing agricultural productivity in sustainable manner Jeevamrit is moderate green in colour with mild foul odour and with progression in storage period it attains darker in colour with strong foul odour. Jeevamrit is made of two words - Jeeves and Maratha .Both are derived from Sanskrit. The word "Jeeves" means a living being and "Maratha" means the elixir(medicine) up to extending life According to agricultural view, Jeevamrit is for crop life. It is the best culture to increase the count of microorganisms. It is a microbial culture, mainly prepared from cow dung and cow urine generally used in organic farming to meet the nutritional requirement of crops. It has been proved that the use of in such varieties of rice (Orzo saliva L.) is better for the yield and its quality (Ashmeet kaur *et al*).



**“A Study on Consumers’ Perception and Awareness towards Millets
in Bilaspur District of Chhattisgarh State”**



A DISSERTATION WORK REPORT SUBMITTED FOR THE PARTIAL FULFILLMENT
REQUIRED FOR THE AWARD OF THE DEGREE OF

MASTER OF SCIENCE
IN
RURAL TECHNOLOGY

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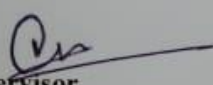
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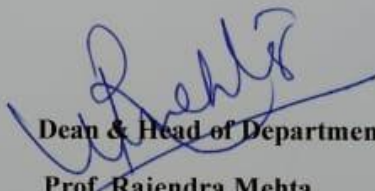
This is to certify that **Mr. Rajkumar Jat** student of Master of Science (Rural Technology) 4th semester in the Department of Rural Technology and Social Development, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) as completed his dissertation work entitled "**A Study on Consumers' Perception and Awareness towards Millets in Bilaspur District of Chhattisgarh State**" under the guidance of **Dr. Lokesh Kumar Tinde** (Assistant Professor), has submitted to the Department. The dissertation is the partial fulfillment of the requirement to receive the degree in **Master of Science (Rural Technology)**.


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CHAPTER - 01

Introduction

Millets are known as ancient nutritional grain and important food staples, particularly, in poor, semi-arid tropics of Asia and Africa (Mahendra, 2012 and Narloch et al. 2009) which are mostly cultivated under a variety of agro-ecological situations like plains, coast hills even diverse soil land varying rainfall. India is the leading producer and consumer of millet crops and their products. The people in arid and semi-arid regions of the country grow and consume millets as a staple food. Millets provide food and fodder security to the dryland agricultural communities. They are also being recognized as food grains for nutrition and health, and nearly organic in cultivation. Millets are the most secure crops to small farmers as they are the hardest, resilient and climate adaptable crops in harsh, hot (up to 50°C) and drought environments. They are often the last standing crops in drought seasons and will be the sustainable future food source amidst of worsening climatic conditions. India is the leading producer of millets. Most of the states of India grow one or more millet crop species. A total of about 16.9 million tonnes of millets food grains are produced in India from nearly 12.7 million ha area, which constitutes about 6% of the national food grain basket. Pearl millet is grown in about 7.4 million hectares yielding 10.1 million tonnes, followed by sorghum (4.35 million ha, yielding 4.63 million tonnes), finger millet (1.1 million ha, yielding 1.58 million tonnes) and other millets (0.44 m ha, yielding 0.35 million tonnes) . Pearl millet, sorghum and finger millet account for more than 95% of the area under millets, while small millets comprising of barnyard millet, foxtail millet, little millet, kodo millet and proso millet constitute less than 5% of the area (Directorate of Economics and Statistics, DA&FW 2021). In India, Rajasthan, Maharashtra and Karnataka are the topmost states in millets cultivation with a share of 35%, 23% and 14% to total millets area. Maharashtra and Karnataka have the maximum area under sorghum while Rajasthan, Gujarat, Uttar Pradesh and Maharashtra have more area under pearl millet. Ragi has the maximum area in Karnataka, Tamil Nadu and Uttarakhand. Small millets area is maximum in Madhya Pradesh, Uttarakhand and Chhattisgarh (Table 3). Despite the surrender of almost 56% area during last 50 years in the country, the millet production has increased from 11.3 to 16.9 million tonnes due to an increased productivity that went up by more than two times overall while it's more than tripling in pearl millet. Development and adoption of improved varieties/ hybrids have played a significant role in the productivity improvement of these crops.



"Farmer's perception of Monkeys: A study of Human-Wild life conflict"



A DISSERTATION WORK REPORT SUBMITTED FOR THE PARTIAL FULFILLMENT
REQUIRED FOR THE AWARD OF THE DEGREE OF

MASTER OF SCIENCE

IN

RURAL TECHNOLOGY

SUPERVISED BY

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CHAPTER - 01

Introduction

Background

The interplay between human activities and wildlife has evolved significantly in recent decades, driven largely by rapid urbanization and extensive deforestation. Among the various species affected by these changes, monkeys, particularly rhesus macaques (*Macaca mulatta*) and Hanuman langurs (*Semnopithecus entellus*), have become prominent due to their increasing interactions with human populations. This research paper delves into the complex dynamics of human-primate conflicts, exploring how urbanization and habitat loss have reshaped the behavior and distribution of these primates. The paper examines the ecological, behavioral, and socio-cultural dimensions of these conflicts, and proposes integrated strategies for effective management and conservation.

Urbanization and habitat loss:

The Expansion of Urban Areas Urbanization is one of the primary drivers of habitat destruction and fragmentation, which has profound implications for wildlife. The expansion of cities and towns into previously forested or natural areas has led to the reduction of available habitat for many species, including primates. Urban development encroaches on natural landscapes, fragmenting habitats into smaller, isolated patches. This fragmentation limits the movement of wildlife and disrupts their access to resources.

For primates like rhesus macaques and Hanuman langurs, the loss of their natural forest habitats due to urban sprawl forces them to seek alternative sources of food and shelter. This migration into urban environments not only exposes them to new risks but also increases the likelihood of conflicts with human populations. As their traditional habitats become increasingly scarce, primates are pushed into cities, where they encounter human-made environments that are often unsuitable for their survival.

In regions like Bilaspur, Chhattisgarh, the effects of urbanization are particularly pronounced. The once-extensive forested areas that served as natural habitats for these primates are now diminished, leading to increased human-primate interactions. As monkeys venture into urban areas, they encounter new challenges and opportunities, including access to abundant food resources and new forms of conflict with humans.



A
DISSERTATION
ON
A SURVEY ON NTFPS SPECIES RESEARCH IN
GAURELLA PENDRA MARWAHI(GPM) DISTRICT
DISSERTION REPORT SUBMITTED FOR THE
PARTIAL FULLFILMENT OF THE REQUAIED FOR THE AWARD OF
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(M.Sc. RT)
UNDER THE SCHOOL OF STUIEDS OF INTERDISCIPLINARY EDUATION AND
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CHAPTER-I

INTRODUCTION

Since time immemorial, the forests provided variety of timber and non-timber forest products to human societies for their existence and livelihood. Non timber forest products (NTFPs) are also known as non-wood forest products and defined as goods of biological origin other than wood, derived from forests, other wooded lands and trees outside the forests, which include sources of plant and animal origin. It includes fruits, flowers, tubers, bark, leaves, grasses, medicinal plants, mushrooms, seeds, nuts, rhizomes, corms, bamboo, firewood, fodder, fiber, oils, tannins, dyes, gums, resins, oleo-resins, honey, lac, shellac, skins, fishes, insects, horns etc.

The livelihood and economy of communities living in and around forest e.g. forest dwellers, gathers, hunters are intricately linked to collection, utilization and marketing of wide variety of NTFPs. The NTFPs form integral part of socio-cultural, spiritual and heritage of tribal people who mainly maintain a symbolic relationship with the forest and forest-based products. More particularly the reliance of tribal on NTFP becomes very high during uncertain agricultural yields for both food securities during seasonal shortages as well as for household medicine and income needs. Access to forest resources helps rural households diversify their livelihood base and reduce their exposure to risk. Earnings from forest products are often important as a complement to other income. Very large numbers of households generate some of their income from selling forest products, often when farm production is not enough to provide self-sufficiency year-round. Income from forest products is often used to purchase seeds, hire labour for cultivation, or generate working capital for trading



**"A Study on Awareness of Farm Workers towards Handling of
Pesticides in Bilaspur District of Chhattisgarh State"**



A DISSERTATION WORK REPORT SUBMITTED FOR THE PARTIAL FULFILLMENT
REQUIRED FOR THE AWARD OF THE DEGREE OF
MASTER OF SCIENCE
IN
RURAL TECHNOLOGY

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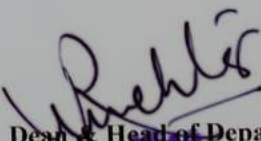

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CHAPTER - 01

Introduction

Background

Pesticide is a significant component of the modern agricultural technology that has been widely adopted across the globe to prevent or control pests, diseases, weeds, and other plant pathogens to reduce or eliminate yield losses and maintain high product quality (Damalas, 2009, Damalas and Eleftherohorinos, 2011). The crops valued more than seven crores are damaged only due to pests in India in which weeds cause 33%, diseases 26%, insects and rodents 26% and birds, nematodes etc cause 15% damage. The seventy percent of the used pesticides are insecticides, 12-15% fungicides and 4-5% weedicides (Arun Katayyan, 2012). Numerous major and minor benefits from pesticide use have been outlined, with the most pronounced being the economic benefits derived from the protection of commodity yield and quality and the reduction of other costly inputs such as labour and fuel (Cooper and Dobson, 2007, Damalas, 2009). In the last twenty years there was an average growth of 11.6% in pesticide use in the whole country, but on the other hand, there was no major improvement in yields by this massive use of pesticides (Khan, 2010). There was almost a three-fold increase in pesticide use in crop that gets the lion's share of pesticides, yet with disproportionately small improvements in yield (Khan et al., 2002).

Despite the numerous benefits of pesticides, the massive increase of pesticide use has led to a huge cost in terms of environmental and human health issues (Tariq et al., 2007). Research has shown that intense pesticides use is responsible for workers' poisonings, chronic diseases, and hundreds of fatalities in the country (Khan et al., 2002, Khan, 2010). Generally, national assessments of the health impacts of pesticide use are relatively rare; previous studies from the U.S. estimated that there were about 67,000 cases of pesticide poisoning annually (Pimentel, 1995)



**A Study on Prospects of Precision Agriculture
for Rural Development**

**ग्रामीण विकास के लिए परिशुद्ध (सटीक) कृषि की
संभावनाओं पर एक अध्ययन**



Dissertation submitted in
Partial fulfilment for the Degree of

**MASTER OF SCIENCE
in
RURAL TECHNOLOGY**

By

SURAJ PRASAD

M. Sc. (R.T.) IVth Semester
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Under the Supervision of
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DEPARTMENT OF RURAL TECHNOLOGY AND SOCIAL DEVELOPMENT
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KONI- BILASPUR 495009 (C.G.)
Session 2023-24



CERTIFICATE OF THE SUPERVISOR

This is to certify that the work incorporated in the dissertation "**A Study on Prospects of Precision Agriculture for Rural Development**" is a record of work carried out by **Mr. Suraj Prasad** (Enrolment No. GGV/22/10722) under my supervision for the award of the Degree Master of Science in Rural Technology.

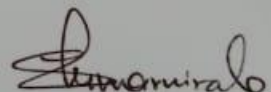
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- Has duly been completed,
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Signature

Head of the Department with Seal

HEAD
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05.08.2019
Signature
Supervisor

Valued
6.8.2019



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INTRODUCTION

Precision agriculture, sometimes called site-specific management, is an emerging technology that allows for adjustments to address within-field variability in characteristics such as soil fertility, soil moisture, weed intensity and insect-pest infestation. The technology has the potential to reduce production costs through more efficient and effective application of crop inputs. It also reduces environmental degradation by allowing farmers to apply agricultural inputs at appropriate rates at places where these are needed. Spatial, temporal and predictive aspects of soil and crop variability are the vital elements of precision agriculture. It involves the sampling, mapping, analysis, and management of specific areas within a field in recognition with spatial and temporal variability with respect to soil fertility, moisture availability, crop characteristics and insect-pest population. Large-scale variability has long been encountered with different cropping practices in different regions. However, precision agriculture responds to spatial variability within individual fields or orchards. Precision agriculture practices lead to a more cost-effective and environment friendly agriculture by: et.al 1994.

- Increasing agricultural productivity
- Optimizing the use of restricted natural resources such as land and water and other crop inputs such as seeds, fertilizers, herbicides and other chemicals.
- Reducing environmental degradation
- Engaging the efficient capabilities of intelligent farm machinery
- Improving the performance of farm management

Present day agriculture has two major challenges: increasing productivity to feed the growing population and reducing the environmental degradation caused by the input-intensive agriculture. Earth observation data has enabled achieving sustainable agriculture in the following aspects:

- Increase area under agriculture by identifying cultivable wastelands/marginal lands
- Increase cropping intensity through improvised cropping practices like cultivation in kharif/post-kharif fallows
- Increase productivity by providing inputs for retention/improvement of soil fertility, site-specific management and increased area under high yielding varieties (HYVs)
- Preserve the ecosystem and eco-diversity
- Create supportive infrastructure (irrigation potential)



A Study on few therapeutic preparations and practices
performed by ethnic people to treat diseases and poisoning
in Eastern Singhbhum in Jharkhand state in India

भारत में झारखंड राज्य के पूर्वी सिंहभूम में जातीय लोगों द्वारा
बीमारियों और विषाक्तता के इलाज के लिए प्रयुक्त की जाने वाली
कुछ चिकित्सीय सामग्री और प्रथाएं



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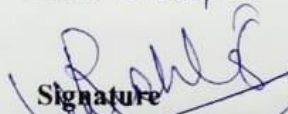


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This is to certify that the work contained in the dissertation entitled “A Study on few therapeutic preparations and practices performed by ethnic people to treat diseases and poisoning in Eastern Singhbhum in Jharkhand state in India” submitted to the Department of Rural Technology and Social Development of Guru Ghasidas Vishwavidyalaya, Koni- Bilaspur (C.G.) by **Ms. Tulsi Murmu** (Roll No. 22049125) for the award of the degree of M. Sc. (Rural Technology), is a record of bonafide research work carried out by her under my supervision. The contents embodied in the dissertation have not been submitted for the award of any other degree or diploma in any other university.

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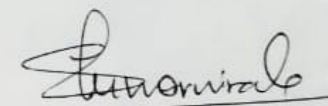

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Introduction

Ancestral medicine refers to use of flora, animal product, mineral based medicines, operable particularly or in coalescence to deal with ailments or maintain good health. Ancestral medicines are substitute or harmonious medicine in many countries. The *Jadi buti* usage are in favour of ancestral medicine. (<https://www.afro.who.int/health-topics/traditional-medicine>). As India has rich history, *Ayurveda* stands to be most ancient and widely used practice system by medicine. In the present scenario, even after having the modern medical availability, the tribal people depend on the ancestral medicine due to their busy schedule in daily work, lack of facilities of the nearby health centers, Less investment, fear of any side effect by allopathy medicine. Recently most of the vegetation are vanishing due to climate change. So, it is to be responsible to save the vegetation from vanishing. Most of the tribals are so concern about the vegetation so they have made the sacred grooves which is called "*Jaher*" to conserve the flora species.

The eastern *Singhbhum* is the home of mostly of tribal people who are dependent on medicinal plants to treat common physical problems like cold, cough, wounds, infertility disorder, gastric problem, skin disorder, snake bite, fever. Though information of medicinal plants has been documented earlier in the district, the present study will get new information on medicinal flora species used by the ethnic society in the district not reported earlier from the tribal community. Keeping all these in mind, the present field survey was carried out to explore ancestral ethnomedicinal knowledge of ethnic society living in *Surda* of East-Singhbhum district, Jharkhand, India. (Mandel et al., 2020).

Jharkhand is rich in forest resources, including medicinal plants and forest foods. Jharkhand's agroclimatic zone is ideal for cultivating ethno-medical plants. Throughout the ages People had used ethnomedicine. People are turning to ethnomedicine as a remedy for the adverse effects of chemical medicine because it is widely available in the state and contains medicinal plants. Over 1500 there are ethnomedicinal plants in Jharkhand. Traditional medicine serves about 80% of the population in Jharkhand. Ethno-medicine is passed down through generations due to limited communication and medical services. (Barla., 2006)

Primitive humans began using medicinal plants to treat a variety of illnesses they were afflicted with. It's interesting to note that the majority of ape tribes only accept this particular treatment. recommended by their ethnic physicians. It was noted that in several Jharkhand regions, around 85% of the rural populace receives their medical care from traditional



**“A Study on Students Perception of Swabhiman Thali
Yojna in Guru Ghasidas Vishwavidyalaya,
Bilaspur (C.G.)”**



**A DISSERTATION
SUBMITTED FOR PARTIAL FULFILLMENT
FOR THE AWARD OF DEGREE
MASTER OF SCIENCE IN RURAL TECHNOLOGY**

SESSION: 2023-24

Supervised to
Dr. Dilip Kumar
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CERTIFICATE

This is to certify that **Mr. Vikas Meena** student of **Master of Science** (Rural Technology) 4th semester in the Department of Rural Technology and Social Development, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) as completed his dissertation work entitled "**A Study on Students Perception of Swabhiman Thali Yojna in Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)**" under the guidance of **Dr. Dilip Kumar** (Assistant Professor), has submitted to the Department. The dissertation is the partial fulfilment of the requirement to receive the degree in Master of Science (Rural Technology).

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Chapter – 01

Introduction

Background

Guru Ghasidas Central University continuously makes many efforts to bring positive change in society, one of which is Swabhiman Thali. From 26 January 2023, through this unique initiative, a meal is provided to needy students studying in the university for just ₹ 10 per day. The concept of Swabhimaan Thali was first conceived and started by the **Hon'ble Vice Chancellor Prof. Alok Kumar Chakrawal** to provide quality nutritious food to the students at affordable prices along with their studies so that they can develop mentally, physically, and intellectually along with their studies. This scheme not only provides food to the students at the right time but also protects them from the harmful effects of fast food on their health.

The main objective of the Swabhiman Thali Scheme provide healthy and nutritious food to the needy and economically weaker section students at the lowest rate. This scheme was started for the needy students of the university on 26 January 2023. This scheme is operated by the volunteers of the National Service Scheme of the university, which includes the management, operation, and distribution of food.

Under this, at the time of lunch (12.30 pm to 2 pm), a coupon for food is given to the needy students for only ₹ 10 based on first come first serve. Each Rashtriya Sewa Yojana unit provides its service for two weeks in turn under the direction of its respective program officers. In this scheme, only the service provided by the volunteers is counted as hours spent in regular Rashtriya Seva Yojana activities.

The food provided in Swabhiman Thali is not only nutritious but also very tasty, which can be easily guessed by seeing the enthusiasm of the students for Swabhiman Thali in the university. Also, the most interesting thing is that the entire management of Swabhiman Thali is done by the volunteers of Rashtriya Seva Yojana. The purpose behind this is to develop the art of management in the students studying and through this scheme, success is being seen in this objective. Guru Ghasidas Swabhiman Thali is being discussed and praised at the national level and people from far and wide come to the university to taste it. Seeing the great enthusiasm and interest among the students for Swabhiman Thali, the number of

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