

# ODISHA DISTRICT GAZETTEERS



## DEOGARH

**GOPABANDHU ACADEMY OF ADMINISTRATION  
[GAZETTEERS UNIT]  
GENERAL ADMINISTRATION DEPARTMENT  
GOVERNMENT OF ODISHA**

# ODISHA DISTRICT GAZETTEERS



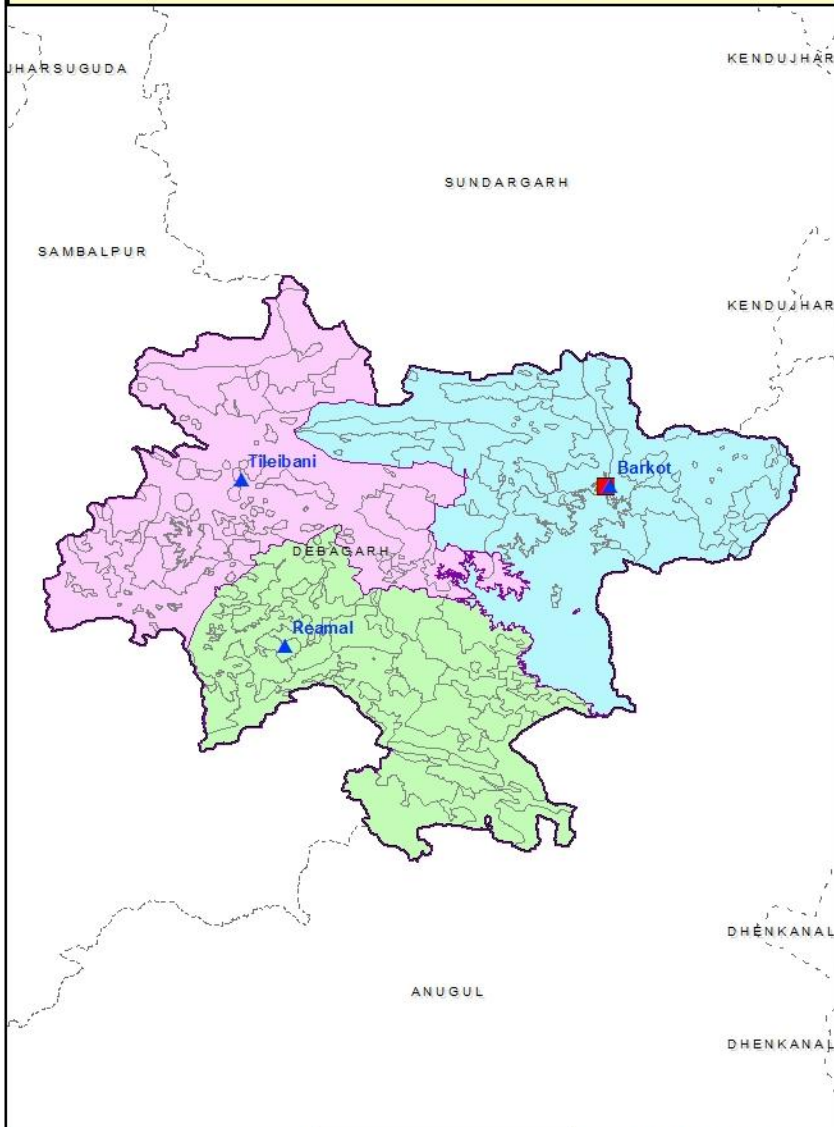
## DEOGARH

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CHIEF EDITOR, GAZETTEERS &  
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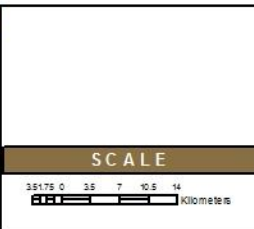
**GOPABANDHU ACADEMY OF ADMINISTRATION  
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# ADMINISTRATIVE MAP DEOGARH DISTRICT



- DISTRICT HEADQUARTER
- ▲ BLOCK HEADQUARTER
- ▭ DISTRICT BOUNDARY
- ▭ BLOCK BOUNDARY
- ▭ GP BOUNDARY



## PREFACE

The Gazetteer is an authoritative document that describes a District in all its hues—the economy, society, political and administrative setup, its history, geography, climate and natural phenomena, biodiversity and natural resource endowments. It highlights key developments over time in all such facets, whilst serving as a placeholder for the timelessness of its unique culture and ethos. It permits viewing a District beyond the prismatic image of a geographical or administrative unit, since the Gazetteer holistically captures its socio-cultural diversity, traditions, and practices, the creative contributions and industriousness of its people and luminaries, and builds on the economic, commercial and social interplay with the rest of the State and the country at large. The document which is a centrepiece of the District, is developed and brought out by the State administration with the cooperation and contributions of all concerned. Its purpose is to generate awareness, public consciousness, spirit of cooperation, pride in contribution to the development of a District, and to serve multifarious interests and address concerns of the people of a District and others in any way concerned.

Historically, the “Imperial Gazetteers” were prepared by Colonial administrators for the six Districts of the then Orissa, namely, Angul, Balasore, Cuttack, Koraput, Puri, and Sambalpur. After Independence, the Scheme for compilation of District Gazetteers devolved from the Central Sector to the State Sector in 1957. Within the State, the responsibility for developing the Gazetteers was transferred from the Revenue Department to the Gopabandhu Academy of Administration (GAA) in 1999. In this process, the “District Gazetteers” of all thirteen Districts were published as follows: Koraput/1966 (Supplement/1984), Mayurbhanj/1967, Bolangir/1968, Sambalpur/1971, Dhenkanal/1972, Sundargarh/1975, Puri/1977, Kalahandi/1980, Boudh-Khondmal/1983, Keonjhar/1986, Balasore/1994, Ganjam/1995 and Cuttack/1992. The Gazetteers of Balasore/1994, Ganjam/1995 and Cuttack/1992, however, could not capture the implications of the reorganisation of these Districts. Though 10 out of 13 Districts had been reorganised into 27 and the total number of Districts in the State had gone up to 30, the reality remained to be captured in the Districts’ Gazetteers.

Be it so, the time is now ripe to build on the rich cache of Gazetteers available across the Districts in Odisha, and to develop updated documents that capture the essence of each District as it exists today. The Districts have evolved over the last couple of decades as a result of various natural phenomena and unforeseen forces, besides a slew of economic and social sector reforms undertaken at the National, State and local levels. The resulting impacts have been more cataclysmic in some Districts than others,

which are reflective of the complex dynamics at work which determine a District's state of preparedness and receptivity to change or its absorptive capacity. This diversity in impacts across Districts is now captured both in measurable parameters and non-measurable underlying trends and perceptions in the updated District Gazetteers.

Besides catching up with the developments in each of the thirty Districts and the environs, it was felt opportune to capture the major shifts in areas and issues of priority and concern across the districts by suitably restructuring the document, to recount the post-Independence events in brief for their historic value and evolutionary impact on the District, and to bridge an important lacuna, viz. Incorporating the role played by freedom fighters from each District in India's Independence, which was sparingly mentioned in the Gazetteers initially prepared by colonial administrators. Though the updated Gazetteers draw heavily on the past Gazetteers of thirteen undivided Districts, the documents were also restructured to provide for elimination, modification and insertion of some issues in discussion with the Consulting Editors and District Administration in order to present a comprehensive and contemporaneous picture of the Districts.

The task of developing and updating the Gazetteers for the present 30 Districts was initiated in the first week of May 2015. Procedurally, a series of time-bound initiatives taken since then were bed-rocked on the complete and continuous involvement of the District Collector and heads of concerned line departments at the district level in the coverage of issues and developments over time, coupled with specific participation of a number of scholars and experts, including some senior serving and retired civil servants. A standardised synopsis of the District Gazetteer was prepared by GAA to assist in the development of the initial drafts by each District Administration. For this exercise, a Committee was constituted by GAA under the District Collector to steer the development of the initial draft for the respective District. A number of Sub-Committees comprising officials and experts were also constituted, again at District level, for drafting specific and thematic chapters. The initial drafts prepared by the District Administration were received by GAA starting in August 2015. After in-house scrutiny of these drafts, detailed comments and suggestions for bridging information gaps were sent by GAA to enable suitable revisions by the District Administration. A process of continuous monitoring of the development of the next stage of drafts was followed, and the second drafts were received by GAA by the end of October 2015. This revised draft Gazetteer of each District was then placed for scrutiny at two levels– the first by the public at large by hosting the drafts at the website of GAA ([gopabandhuacademy.gov.in](http://gopabandhuacademy.gov.in)), and the second by a set of 30 Experts, one for each District, designated as Consulting Editor.

Simultaneously, Government in General Administration Department (GAD) with the approval of Hon'ble Chief Minister reconstituted the State Advisory Committee (SAC) and State Working Committee (SWC) on Gazetteers vide Notification No. 23473 dated 26 September, 2015. The SAC continues to be headed by Chief Secretary, Government of Odisha. The SWC hereafter was to be chaired by the Director General, GAA, who had also been notified as the ex-officio Chief Editor of Gazetteers, besides being granted functional freedom to prepare and publish the Gazetteers. A series of meetings were held by DG, GAA with the Consulting Editors appointed for refinement of the drafts prepared at the District level to discuss and to ensure accuracy and coherence, quality and content. The Consulting Editors also visited the respective Districts regularly to interact with senior officials, governmental and non-governmental organisations and persons concerned with the preparation of the initial two drafts. The drafts reviewed by DG, GAA, with the Consulting Editors were forwarded to the District Collectors for authentication of content and further improvements in quality, wherever felt necessary.

The final round of discussions with the Consulting Editors was held in GAA in February through till April 2016, and the draft Gazetteers, finalised at this stage again in consultation with the District Collectors, were placed before the SWC. Drafts recommended by it were placed before the SAC for approval.

Deogarh emerged as one of four districts after the reorganisation of Sambalpur district w.e.f. 01.01.1994. Creation of the new district fulfilled local aspirations and long standing demand. This also warranted a revisit to the past and present of the district in form of developing a new District Gazetteer. Smt. Guha Poonam Tapas Kumar, IAS, Collector effectively guided her team of officers and local experts to prepare the initial draft for the gazetteer of the district. I compliment and thank her and all those involved in preparing the draft.

I am grateful to Mr. Abhay Kumar Padhi, Consulting Editor, who has meticulously gone through the draft and fine-tuned it. Without his sincere efforts and commitment it would have been difficult to bring out this gazetteer.

Mr. Manoj Ahuja, IAS, Principal Secretary, Agriculture and Farmers' Employment Department, Government of Odisha deserves special thanks for having perused the draft and offered his valuable suggestions for its improvement.

I convey sincere gratitude to the members of the State Working Committee and State Advisory Committee for their valuable inputs and advice. I will be failing in my duty if I do not acknowledge the contribution of

my friends and colleagues in the State Administration and particularly those at GAA. namely Sri Shyam Sundar Nayak, OAS, Additional Commissioner, TC, Dr. Rabi Naryan Patra, Deputy Director (Studies), Sri Subrat Kuanr, Research Officer and Dr. Rabindra Kumar Swain, Compiler.

Finally, despite optimum efforts to plug the obvious limitations and lacunae in the Gazetteer, factual deficiencies, misspellings and grammatical errors might be found. The responsibility for all its shortcomings doubtless remains mine. With an eye to the future, I urge all readers, including thematic experts, young scholars, and luminaries, to offer their valuable suggestions for improving the quality and contents of the document for the next addition with the passage of time.

I would like to thank the people of the District of Deogarh for their contributions over time to the making of the District as we now know it, and commend this document to them and to all other stakeholders within the State and beyond.

**Dr. Taradatt, IAS**  
Chief Editor, Gazetteers &  
Director General, GAA



## NOTE FROM CONSULTING EDITOR

Deogarh finds scanty mention in the old gazetteers and other such compilations during the last century, as one of the feudatory states of Odisha among the twenty-six *Gadjats* or as a sub-division of Sambalpur district. After Deogarh became a separate district carved out of Sambalpur, it is but natural to draw and describe a fairly detail profile of the new district and compile a gazetteer the land, its people, history and heritage, its resources both human and natural, its administrative set up and system of governance.

The first recorded attempt to compile and publish a gazetteer of Sambalpur district was done by L.S.S.O'Malley, a British officer of the Indian Civil Service (ICS), in the year 1909. In the gazetteer by O'Malley there is no mention of Deogarh (then spelt as Deogarh as the British preferred) or the princely state of Bamanda or Bamra. Almost concurrently in the year 1910 L.E.B.Cobden-Ramsay, another ICS officer produced the 'Feudatory States of Orissa' in the series Bengal District Gazetteers. This work by Cobden-Ramsay gives, though not in much detail and depth, description of all the twenty-six feudatory states (earlier known as Tributary Mahals), of 'Orissa' (now Odisha) Division of the Bengal Presidency. Chapter-III of this book deals with 'Bamra State' running into only twenty-one pages. His description of the land and its people too is sketchy and insufficient. Subsequently, F.C. King, another British officer of the same service produced a revision of O'Malley's Sambalpur District Gazetteer in the year 1932 without any worthwhile mention of Bamra State. All these narratives and accounts were by British colonial civil servants and predate India's independence.

After independence in 1948, the erstwhile feudatory states of India under the protection of the British government acceded to the Union of India, which in common parlance is called 'merger of the princely states'. Bamra or Bamanda of which Deogarh was the capital too merged with the province of Odisha along with the rest twenty-five feudatory states of Odisha. After a gap of almost four decades since the gazetteer of F.C. King, another district gazetteer of Sambalpur was produced in the series 'Gazetteer of India – Orissa' with Nilamani Senapati, ICS as the Chief Editor assisted by Shri Bhabakrushna Mahanti, IAS, and was published in the year 1971. That was the last gazetteer, which at some length dealt with various aspects of Deogarh as a sub-division of Sambalpur district.

All these events relate to the twentieth century. Between then and now, not that only a new century in terms of time has commenced but several perceptible changes have occurred in Odisha. When the last district

gazetteers were released in the early seventies, there were only thirteen districts. In the early 1990's seventeen more districts have been carved from out of the ten old districts, barring Sundargarh, Keonjhar and Mayurbhanj, taking the total number of districts to thirty. Each of these districts has its own history, heritage, geographical features, topographical contours, soil type, mountain and hill ranges, rivers and rivulets, agricultural practices, minerals, mines and industries, ethnology, linguistic peculiarities, fairs festivals and above all discernibly distinct ways of cultural and social life of its people.

Deogarh, named after the former capital town of Bamra (Bamanda) State is one such new district. Bamanda, which had earned the dubious sobriquet of '*Akhoj Bamanda*', the land considered almost inaccessible and out of bound for people from elsewhere is now crisscrossed by several National and State Highways and roads with bridges over rivers and rivulets. The topography, demography, ecology, environment, communication, agricultural practices, public health delivery system, education, people's empowerment, law and order, public peace and many more aspects have changed socio-economic composition and character of the district.

This gazetteer of Deogarh district is a compendium of various aspects that draws a profile of the district. Our endeavour has been to make it as much comprehensive as possible without making it bulky and in turn unwieldy for the reader. It is a handy volume but is not just a handbook. In preparing this volume, several individuals and institutions have contributed facts and material, foremost among them are the district administration and individual contributors. Our special thanks are due to Ms. Guha Poonam Tapas Kumar, IAS, Collector and District Magistrate of Deogarh and her colleagues in various offices in the district who have with singular devotion have provided material and help when sought. A list of other individuals who have helped compile the gazetteer is appended at the end of this volume. Material has been obtained from other books and articles too and that has been acknowledged in the bibliography section.

The Goapabandhu Academy of Administration and its Director-General Dr. Taradutt, through a series of meetings, correspondence and personal interaction has provided invaluable guidance in shaping this gazetteer. Since the District Gazetteer of Deogarh is one in a series of thirty, effort has been to keep uniformity among all the volumes in terms of content, style and presentation, which have largely been achieved. At the district level, to make the task easier, the district administration had formed several groups to collect, sift and collate material for each Chapter, which included government officials and private individuals. Many individuals from the elite citizenry of Deogarh too have shared text, photographs, and other

information from their precious and rare personal collections. Each such group had compiled drafts for the assigned Chapters, which underwent several revisions to reduce redundancy, repetition and make them compact.

The Editors are indebted and express their sincere thanks and gratitude to all who got involved in this task. Special thanks are due to Sri Khetramani Bibhar who meticulously typed and performed the tedious task of proof-reading of the entire text. Sri Nirakar Patra helped in refurbishing the fungus-ridden old photographs with his technical acumen to make them print-worthy and presentable. Care has been taken to keep the text and context of this gazetteer free from error. Some inadvertent typographical mistake and printing error may have remained for which the Editors seek the indulgence of the readers.

Abhaya Kumar Padhi  
Consulting Editor

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## ABBREVIATION

Ac	Acre
ADB	Asian Development Bank
ADRI	Animal Disease Research Institute
ADRI	Animal Disease Research Institute
AES	Agro-ecological Situation
ANM	Auxiliary Nurse and Midwife
ARLC	Asian Regional Labour Conference
ASHA	Accredited Social Health Activists
ATMA	Agriculture Technology Management Agency
ATMA	Agriculture Technology Management Agency
AY	Actual Yield
AYUSH	Ayurvedic Unani Sidhha and Homeopathy
BAIF	Bharatiya Agro Industries Federation
BCE	Before Current Era
BDO	Block Development Officer
BDO	Block Development Officer
BPGY	Biju Pucca Ghar Yojana
BPL	Below Poverty Line
BRGF	Backward Region Grant Fund
BSNL	Bharat Sanchar Nigam Limited
BVO	Block Veterinary Officer
CADA	Command Area Development Agency
CCE	Crop Cutting Experiment
CCR	Cement Concrete Roads
CDVO	Chief District Veterinary Officer
CE	Current Era
CFC	Consumption of Fixed Capital
CHC	Community Health Centre
CM	Centimetre
DDL	Disease Diagnostic Laboratory
DDP	District Domestic Product
DHQ	District Headquarter
DMS	Document Management Software
DRDA	District Rural Development Agency
DTH	Direct-to-home (For Radio and Television Transmission)

FBA	Fruit Bearing Area
FCA	Finance Commission Award
FIAC	Farm Information and Advisory Centre
FLD	Field Level Demonstration
GCA	Gross Cropped Area
GCES	General Crop Estimation Survey
GCP	Ground Control Points
GDDP	Gross District Domestic Products
GDP	Gross Domestic Product
GE (Church)	Gossner Evangelical Lutheran (Church)
GGY	Gopabandhu Grameen Yojana
GKM	Gram Krushak Mancha
GP	Gram Panchayat
Hect	Hectare
HMS	Hospital Management Society
HYV	High Yielding Variety
IAP	Integrated Action Plan
IAY	Indira Awas Yojana
ICDS	Integrated Child Development Scheme
IFS	Integrated Farming Systems
ILO	International Labour Organization
IMFL	India Made Foreign Liquor
INM	Integrated Nutrient Management
IPM	Integrated Pest Management
JRY	Jawahar Rozgar Yojana
JSSK	Janani Shishu Suraksha Karyakram
JSY	Janani Surakshya Yojana
KCIE	Knight Counsel of Indian Empire
Km	Kilometre
LWE	Left Wing Extremism
MDM	Mid-Day Meal
MDR	Major District Roads
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIP	Minor Irrigation Project
MLA	Member of Legislative Assembly
MLA LAD	Member of Legislative Assembly Local Area Development
mm	Millimetre

MP	Member of Parliament
MPCS	Multipurpose Co-operative Societies
MPHW	Muli-Purpose Health Worker
MPLAD	Member of Parliament Local Area Development
MSL	Mean Sea Level
MT	Metric tonne
MVU	Mobile Veterinary Unit
NABARD	National Bank for Agriculture and Rural Development
NABCONS	NABARD Consultancy Services
NAS	National Ambulance Services
NDDP	Net District Domestic Product
NFSM	National Food Security Mission
NH	National Highway
NHM	National Health Mission
NLRMP	National Land Records Modernisation Programme
NMOOP	National Mission on Oilseed and Oil Palm
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NWDPPRA	National Watershed Development Project for Rain-fed Area
OLM	Odisha Livelihood Mission
OLR Act	Odisha Land Reforms Act
OMFED	Orissa State Cooperative Milk Producers' Federation Limit
OPLE Act	Orissa Prevention of Land Encroachment Act
OSRTC	Odisha State Road Transport Corporation
OUAT	Odisha University of Agriculture Technology
PHC	Primary Health Centres
PMEGP	Pradhan Mantri Employment Generation Programme
PPM	Plant Protection Management
PPR	Peste des Petites Ruminants
PVTG	Particularly Vulnerable Tribal Group
QPM	Quality Plant Material
RBSK	Rashtriya Bal Swasthya Karyakram
RDC	Revenue Divisional Commissioner
RGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
RKS	Rogi Kalyan Samiti
RKVY	Rastriya Krushi Vikash Yojana
RLEGP	Rural Landless Employment Guarantee Programmeme

RoR	Record of Rights
SBY	Swachha Bharat Yojana
SC	Schedule Caste
SDO	Sub-divisional Officer
SGSY	Swarnajayanti Gram Swarojgar Yojana
SH	State Highway
SHG	Self-help Group
SJSRY	Swarna Jayanti Sahari Rojgar Yojana
SNCU	Special New Born Care Unit
SPCA	Special Prevention of Cruelty to Animals
ST	Schedule Tribe
TSC	Total Sanitation Campaign
TY	Threshold Yield
VAS	Veterinary Assistant Surgeon
VPN	Virtual Private Network
WHS	Water Harvesting Structure
WLDP	Waste Land Development Project
WODC	Western Odisha Development Council
WSHG	Women Self-help Group
ZP	Zilla Parishad
ZSS	Zilla Swasthya Samiti

# CHAPTER-I

## GENERAL

### Introducing the District

The district of Deogarh, as a distinct administrative entity, was carved out of the erstwhile larger Sambalpur district of Odisha on the 1<sup>st</sup> of January 1994. The literal English translation of Deogarh is Abode of Divinity. A larger portion of the erstwhile Bamanda or Bamra State constitute Deogarh district. The State of Bamanda (Bamra) acceded to the Union of India on 1<sup>st</sup> January 1948. Prior to the merger of the state, Kuchinda, which became a separate subdivision of Sambalpur district in 1948, also formed a part of the Bamanda state.

### Origin and Change of Name of the District

There are several myths, legends, apocryphal tales, and folklores about the derivation of the name Bamanda. One legend being, a couple named Bama (or Baha) and Manda ruled over this tract. A conjunction of their names contributes to the name Bahamanda or Bamanda for the erstwhile princely state, which in colloquial usage is pronounced as Bamra. Another mythical version is that Lord Ramachandra upon his banishment from Ayodhya in fulfilment of his father's vow passed through this land and set his left foot on the soil of this territory first. '*Bama*' in Sanskrit is left and '*Mada*' is foot. These two words form the name Bamanda. According to another folklore when Lord Rama accompanied by his simian forces was moving through this tract in search of Sita, whom the demon King Ravana had abducted, the monkeys lost way and went towards Bonai, another adjacent princely state. '*Bana*' or '*Bata bana*' in Odia means to lose way or direction. After a while the simians discovered the correct path by turning left, that being '*Bama*' and that is how the land derived its name Bamanda or Bamra. All these tales are local narratives, apocryphal in nature. However the name stayed on for centuries and now only one railway station on the South Eastern Railway route carries the name of Bamra, which was earlier known as Govindpur, now a part of the Kuchinda sub-division of Sambalpur district. During merger of Bamanda state with Odisha, the sub-division formed out of a larger portion of the former princely state came to be known as Deogarh, the capital town of Bamanda. Spelling of the place name Deogarh that the British used in their records continued as in the case of other place names. That very name continued even after the former sub-division of Sambalpur was accorded the status of a district in 1994. Now spelling of several place names, famous and not so famous, are being 'Indianised' and the general feeling in Deogarh is to spell the place name as Deogarh as in Odia rather than in the British colonial way. This according to them would also allay the

confusion of the name of the district, as there are other places with almost the same spelling and equal or more popularity like Deoghar in Jharkhand state.

### **Geographic Location and Boundary**

Deogarh is situated in the mid-northern part of Odisha. The geographical coordinates of the district are 20° 9' North to 22° 12' North latitude and 83° 23' East to 85° 23' East longitude and of the headquarters town of Deogarh are 21° 32' North latitude and 84° 43' East longitude. It is bounded by hilly tracts on all sides. Its boundary is defined by Angul district in the East and South, Sambalpur in the West and Sundargarh to the North. Deogarh, the headquarters is located 90 kilometres to the east of Sambalpur city on National Highway- 06 (now N.H. 53). It is 115 kilometres to the north of Angul town on National Highway 200 and 150 kilometres south of Rourkela on National Highway 23. National Highways 49, 23, 200 and along with Ranchi-Vijayawada road now under construction pass through the district. These are the main arterial roads for inter-regional communication, transportation, and trade. The district is rich in biodiversity and ecological features. Pradhanpat and Korodkot waterfalls are of historical importance and famous for their salubrious ecology. Korodkot is one of the earliest locations where hydro-electricity was generated in Asia. The outline of Deogarh district which is nearly analogous to the former Bamanda State sans the Kuchinda Sub-division resembles that of a sitting swan.

### **Area and Population**

The district covers a total area of 2490 square kilometres with a population of 3,12,520 out of which 1,58,230 are male and 1,54,290 female as per the provisional data of the General Census of 2011. According to the earlier decennial Census of 2001, Deogarh district had a population of 2,74,108. There has been an increase of 14.01 per cent in the population during the decade between 2001 and 2011. The literacy rate in the district recorded in 2011 is 72.57 per cent as against 60.36 per cent in 2001, a marked increase of 12.21 percent. The rate of literacy among male is 81.92 per cent and that of the female is 63.05 per cent. With regard to sex ratio in Deogarh in 2011 it stood at 927 female per 1000 male. The decline in male female ratio is discernible between 2001 and 2011. In 2001 Census the ratio was 956:1000. This is markedly below the state sex ratio of female-male ratio which is 972: 1000 and the national sex ratio in India which is 940:1000.

For administrative convenience Deogarh district was one sub-division and now is divided into three Tehsils, namely Reamal, Deogarh and Barkote. The community Development blocks are also three in number namely

Reamal, Teleibani and Barkote. Deogarh district has sixty Gram Panchayats. Total number of inhabited villages in the district is 711. There are 164 uninhabited villages also in the district. According to the 2011 Census there are total of 58,234 households in the district, out of which 53,984 or 92.56 percent are rural households and 4,341 or 7.44 percent are urban households. The district headquarters town of Deogarh is the only town, which has a Municipality. No other locality of the district has a Notified Area Council. A total of sixty Gram Panchayats takes care of the civic and developmental needs of the villages.

## **Demography**

The population is an agglomerate comprising people of different castes and tribes. Prominent among the castes and tribes are: Kandh, Bhuyan, Kolh, Kisan, Kuda, Khadia, Munda, Gond, Goud, Brahmin, Rajput, Karan, Kurmi, Agria, Chasa, Dumal, Teli, Mali, Bhulia, Mahar, Kuli, Kosta, Ganda, Panka, Ghasia, Chamar, Dhoba, Kumbhar, Luhura, Betra, etc.

People of all the castes and ethnic groups who are settlers of the district may be classified into two types based on their ethnicity, vocation, social customs and lifestyle. One is the primitive inhabitants like the Kandh, Bhuyan, Kolh, Kisan, Kuda, Khadia, Munda, Gond, etc. They have inhabited these lands since pre-historic times. Being forest dwellers, they are simple by nature. On the other hand, the second type of people is migrant settlers from other parts of the country. This group of people is generally classified as the non-service class and the service class like artisans and menial workers. The non-service classes were close to the ruling dynasty and the Court and thus have been more informed, educated and affluent. The service classes were settlers in villages carved out of the forest land and had taken to agriculture and other allied vocations and professions. The principal non-agricultural castes are Brahmins, Rajputs, and Karans. For people from the Chasha, Gouda, Suda, Kandha, Ganda, Agharia, Dumala, Kolha and some other castes and ethnic groups agriculture is the main activity. Bramhins, Rajputs and Karans are landholders but are not practising farmers or active cultivators. They engage themselves in farm labour for their agricultural operations.

Bramhin dominance in social dynamics began when the Gangavamsi Kings brought in and settled learned scholars, priests and pundits from time to time according to needs of their religious and ritualistic requirements. It is believed that Raja Saraju Gang Deb, the first of the Ganga line of rulers of Bamanda brought one Debananda Mohapatra from Patna State, the present Balangir, as a priest. Likewise Trilochan Chobe who came from the north as a classical teacher by Raja Rudranarayan Deb was called "*Aparacharya*".

Hari Saran Dwibedy and Harihar Dash came from Jajpur at the time of Raja Sadananda's rule and served as senior court officials. Damodar Bahinipati came to Bamanda at the time of Raja Brajasundar Deb. Somanath Satpathy came to Deogarh during the rule of Sir Basudeb Sudhal Deb. Persons of Rajput lineage were close to the ruling family and were largely engaged in security duty and military operations. *Karans* were employed in courts for maintenance of revenue accounts and records.

There has been complete harmony among people of varied ethnicity, caste and clan since ages in this district. By assimilation, acculturation and amalgamation of all types of people, the aborigine forest dwellers, the settled agriculturists and the service classes, Bamanda was both fairly prosperous and enlightened to a great extent in comparison to other Gadjats.

### **Geology**

The geological formations represented in this district can be arranged in the following order of increasing antiquity.

1. Soil and alluvium of recent formation
2. Laterites and Lateritic iron-ore usually of tertiary period
3. Damuda series of the Kanthi stage of the lower Gondwana strata and
4. Barakar stage, needle shale and sand stone, boulder bed Talchir series

The district is covered with irregular deposit of laterite and lateritic iron-ore at various altitudes. This type of iron ore is seen at Hillong hills and Jagadala area of Kansar and Khajuria hill range near Tusula of Tileibani Block.

Among the minerals and ores found in the district are clay, copper and lime stone. There are traces of gems stones in the district, Collection of gems stones from the bed of Gohira canal system has been recorded. The best known locality is Ratanapur, Budido, Kankarakhol, Kuskhulia of Reamal block. So far no gems stone bearing horizon of any commercial importance has been located in the district. Clay occurring in Deogarh district are of three types.

- (i) Sedimentary clay
- (ii) China clay
- (iii) Lithomarge

The sedimentary clay which occurs in beds is mainly of Gondwana age although some occurrences have been recorded in Cuddapah formation. China-clays have been derived as alteration products of granites and other feldspar rich rock. On burning it retains its whiteness. Clay beds occur inter-bedded with sand stones in the Sindura hill 5 Kms. South of Deogarh town in Tileibani Block.



Copper is available in Dolpara, Malichua, Latakhandi, Basantpur and Laimura area of Tileibani and Reamal Blocks of Deogarh district.

Extensive deposits of lime stone suitable for lime burning, fluxing in the iron and steel and other metallurgical industries including cement production occur in Deogarh district. Limestone occurs in Pradhanpat but not for commercial use. This lime stone locally known as '*Asurahada*' meaning demon-bone and is of edible variety used in betel making.

### **Physiographic Features, Land Formation and Soil Type**

The natural bearing of the district is exceedingly beautiful and enchanting with vast ranges of deciduous forest and tree-clad hills ranges. This landscape alternates with well-watershed valleys and plateaus gleaming bright in the sun, with green waving crops of paddy in monsoon and winter seasons with brilliant yellow mature crops of *Surguja*, an indigenous variety of paddy contrasting brilliantly with the deep green foliage of the forest. The district forms a series of hill ranges with elevation of nearly 610 metres or about 2000 feet on an average rising to a height of 816 metres at some places above the mean sea level rolling backwards towards the headquarters.

Land formation of the district is mainly of two types – valleys of hill tract and the open plain land close to the various rivers and rivulets. The district forms watersheds from west to east, with fine valleys in between with discharge of water to Brahmani, Tikira and Gohira, three major rivers of the district with their rivulets of the inner tablelands. The eastern side of the district is the valley of Brahmani spreading out into fertile plains watershed by Kaidanta, Pradhanpat and Paudi Hill streams. At the Barkote pass, the river winds round magnificently wooded hills from 743 metres to 816 metres high from the sea level. From the eastern bank of Brahmani, the Paudi Hill ranges tower into a fine watershed from 678 metres high from the sea level. It slopes down upon the southern side of the Barkote Block of the district. Wild precipitous bluffs, the soft beauty of the hill-clad ranges scored and seamed by the storms of ages relieve the western side of the district headquarters. In the rains raging torrents flashing for kilometres in the sunlight hurt themselves in fine waterfalls to the slopes below, the finest of these waterfalls drops over the sheer southern face of the Pradhanpat-Kaidanta hill ranges. The district has plateau land comprising small valleys shut in on all sides by hills, which rise as high as over 1000 metres. The tops of these ranges in the three blocks of Barkote, Reamal and Tileibani form fine plateau lands. They are almost level, but generally run up to a small elevation at one end some five metres above the plateau, which averages

about 100 metres. These ranges are covered with long grass and form the grazing grounds for bovine and other domestic livestock. The largest and finest of these ranges are the Khajuria and Rambhadebi ranges near Suguda and Laimura plateau in Tileibani Block of the district.

In the physiographic genesis of soil of the district all the five factors of soil formation are well pronounced. The most predominant soil types of the district are sandy-loam and red soil. There are a few tracts where black soil is also present. The agricultural land of the district is marked to have five landforms such as hill, ridges, valley, and stream terraces. These can be further subdivided into different land types and sub-land types. Broadly these can be classified as high land, medium land and low land. The climate, vegetation and other biotic factors, rock types and topography indicating different land types have considerably influenced genesis of the soil in different parts of Deogarh district. These belong to four orders namely alfisols, inceptisols, entisols and vertisols.

The topography is largely undulating with ridges and valleys as the prominent features. The uplands are located at the crest of the ridges and the upper slopes constitute the unbounded and bounded lands. These are locally called *Aat* and *Mal* land respectively, which constitute the highland. The valley bottomlands which are called *Bahal* constitute the low lands and the lower valley land constituting medium lands is called *Berna*.

## **Climate**

The climate of Deogarh district is characterised by hot and dry summer and distributed rains during the South-West monsoon season. Winter season commences from late November and lasts until the end of February. Summer season lasts from mid-March to mid-June. The South West monsoon hits Deogarh district during mid-June and rains continue up to late September. The months of October and November constitute the post monsoon season followed by the harvesting period.

Average annual rainfall in the district is 1582 millimetres of which about 86% is received during the South-West monsoon season and the rest rains are sporadic in nature occurring during pre-monsoon and post-monsoon period. July and August remain the wettest months. As per past available records, the year 1961 received the highest rainfall, which was 172% of the normal. The lowest annual rainfall of only 60% of the normal occurred consecutively for two years in 1923 and 1924. During monsoon, the sky remains overcast. In the concluding half of summer and post monsoon months clouding becomes moderate. In the rest of the year, sky remains generally clear or very thinly clouded.

Summer temperature begins to rise steadily from early March and remains at the peak until end of May or early June. The maximum temperature on an average remains about 41° Celsius and the average minimum temperature remains at about 26° Celsius. On hottest days prior to the advent of the South-West monsoon during May the maximum temperatures veers between 45° to 47° Celsius. With the onset of South-West monsoon around the second week of June, day temperature appreciably drops.

December and January are the coldest months of the year with the minimum temperature remaining between 7° and 12° Celsius. Due to the passing of western disturbances across North India during the winter months, short spells of extreme cold conditions prevail in the district and on certain occasions, the minimum temperature drops to about 4° Celsius.

Wind speed all across the district remains light to moderate throughout the year, with certain exceptions during summer when occasional of whirlwind is observed. In the post monsoon and winter season the wind direction is mainly from North and North-East towards South and South-West. On the onset of summer in early April, wind from the South-West and South become more common and this trend continues during the entire period from May to September.

During the monsoon season, depressions form in the Bay of Bengal across the East Coast of India including the coastline of Odisha move in Westerly direction causing widespread and heavy rain accompanied by strong wind and occasional cyclonic storms. The district experiences thunderstorms accompanied by lightening mostly in the afternoon in late summer and towards early October. The South-West monsoon rain is often associated with thundershowers and thunderbolts. Fog of moderate density occurs during the winter season.

The relative humidity is high during the South-West monsoon season being generally over 75 percent. After the monsoon season, humidity decreases and during the winter season, the air is salubrious. The driest part of the year is the summer season when the relative humidity is rather low, the afternoon humidity being generally about 25 to 30 percent.

### **River System**

The district forms watersheds from west to east, punctuated by fine valleys that feed the three rivers, Brahmani, Tikira and Gohira of the district and other tributary streams and rivulets of the inner tablelands. The eastern side of the district is the valley of Brahmani spreading out into fertile plains watershed by Kaidanta, Pradhanpat and Paudi Hill streams. It slopes down

upon the southern side of the Barkote Block of the district. This watershed in turn slopes down into the Rengali Dam Reservoir. The southernmost of the district is the valley of Tikira, Gohira and the rivulet Hinjuli, spreading out into fertile plains of Reamal Block of the district watershed by Sulia, Hillong hill tract streams.

Fish of different varieties are found in major rivers like Brahmani and other rivulets of Deogarh district. An elaborate account of pisciculture in the district is given in the Chapter-IV dealing with Agriculture and allied activities. Important varieties of edible fish of commercial value are found in the water streams of Deogarh. The most common species are *Catla-catla* (Bhakur), *Labeo rohita* (Rohi), *Cirrhina mrigala* (Mirkali), *Labeo kalbasu* (Kalanchi), *Wallagoniattu* (Balia), *Pseudegropius garua* (Katrang), *Bagarius bagarius* (Kanabudhia), *Barbus tor* (Kudi), *Gobies* (Ghensda), *Murels* (Seula), *Minor Murels* (Khapsi), *Riacobdila* (Bainri), *Barbus minor* (Putia and Kutri), *Cliea Gora* and *Chela Phulo* (Jarda), *Clarias Latrachas* (Magur), *Sacobra chus fossilis* (Singhi), *Gobies* (Matul), *Mystus aor* (Adi), *Eutropiichthys vacha* (Batcha), *Belerey hemiraphus* (Gaurchela), another *Barbus minor* species (Dandikiri and Dandei), *Ambly pharyngdom* (Mahurali or Maharel), very minor *Barbus* species (Jhima), Major prawns (Chingda), Minor prawns or shrimps (Chingri), *Notopterus notopterus* (Phali), Chital, *Barbus serana* (Serna), Minor Crabs (Kankra), *Amphibian Ketchla* (Thumbi), *Nandus nandus* (Bhadra), *Mungli tact* (Kainga), Glass fish (Pat Pania). Ornamental and decorative coloured fishes are bred in the Landijhari village of Barkote Block of Deogarh district and the village has earned the name of 'Ornamental Fish Village'.

### **Waterfalls, Springs, Lakes and Tanks**

There are natural springs (*jharan*) in Deogarh district namely Pradhanpat, Kurodkot, Kai Jharan, Bairikatajharan, Nagti Jharan, Lia Jharan which cascade down the Pradhanpat reserve forest of Kaidanta hills creating pools of water at the foot of the hill. The Pradhanpat and Kurodkot are veritable waterfalls. Emanating from hill tops of considerable height, they fall down the slope of hills creating several perennial waterfalls. The Pradhanpat waterfall nearest to Deogarh town supplies drinking water to the town throughout the year. The Kurodkot waterfall gained historic importance as one of the first hydroelectric power generating units set up in 1916, which supplied electricity to Deogarh town. Though the power plant is defunct now, water flowing down from Kurodkot is used for irrigation purposes. Kai Jharan, Nagti Jharan, Bairikata Jharan and Lia Jharan also come down from Pradhanpat reserve forest of Kaidanta hill range. To the west of Deogarh are the Kai Jjharan at about 5 Kms. From N.H. 49 near village Kurod in Tilebani block, Nagti Jjharan near Tainsar village 7 Kms. From N.H 49 and Liajharan

on N.H. 49 near village Dhiramunda. All these *jharans* are situated in Tileibani Block. There are three springs in Barkote Block. They are Kaunsibahal Jharan, Panchamahala Jharan and Chakadihi Jharan flowing down from Pradhanpat reserve forest of Kaidanta hill region. Kaunsibahal Jharan is 20 Kms. In the east of Deogarh on N.H. 49 near Kaunsibahal village, Panchamahala Jharan is 25 Kms. In the east from Deogarh on N.H. 49 near village Panchamahala. Chakadihi Jharan is 35 Kms. In the east on N.H. 23 near Chakadihi village in Barkote Block whereas Katar and Chingudi Jharan are in Reamal Block. Katar is 55 Kms. From Deogarh and Chingudi Jharan is 48 Kms. In south from Deogarh on N.H. 200 respectively.

There is no natural lake in the district. The Rengali Dam Reservoir covers a large area in the south eastern part of the district. 147 villages of Deogarh district were submerged in the reservoir. It is considered to be the largest artificial lake in the district. The Gohira Dam Reservoir in Tileibani block is in south-west 28 Kms. From Deogarh used for irrigation of farmland in Tileibani and Reamal block. Apart from these two reservoirs, there are many tanks in the district, which serve the purpose domestic and irrigation needs of the villagers in the vicinity. Among them the important ones are Mohinipur tank at Mohinipur village, Magar *kata* at Santarapali village, Basudebpur *kata* at Basudebpur village, Kalamati *kata* at Kalamati village all are in Tileibani block.

### **Hill System**

The district forms a series of hill ranges rolling backwards towards the headquarters. The soft beauty of the hill-clad ranges in the western side of the district headquarters is relieved by wild precipitous bluffs scored and seamed by the storms of ages. In the rains, raging torrents flashing for kilometres in the sunlight hurt themselves in fine waterfalls to the slopes below.

The hill system of Deogarh district can be grouped mainly under six ranges:

- (i) The Khajuria range on the north side of the district running from west-east in Loimura of Deogarh Police Station, Tileibani Block with a maximum height of 745 meters from the sea level.
- (ii) The Pradhanpat and Kaidanta ranges 743 meters and 816 meters respectively are on the north side of the Deogarh town and just below the Khajuria range, weaving a vast
- (iii) Plateau in between running from west-east up to the bank of the river Brahmani covering Tileibani and Barkote Block.

(iv) On the eastern side of the river Brahmani runs a range of hills called Paudi having 678 meters height from sea level. Probably the hills named after the Paudi Bhuyan, those live in the Paudi reserved forest in Barkote Block.

(v) The Ushakothi range at Hillanga hills in Kansar covering Tileibani and Reamal Block extending up to Malichua- Latakhundi towards east. It is in south side of Tileibani Block. The elevation of this hill range is from 610 to 672 meters from the sea level.

(vi) RambhaDebi-Sindura Hill ranges nearest to Deogarh town in south of Tileibani Block having 580 meters to 430 meters height from the sea level.

(vii) Sulia Hill range of Reamal Block having 430 meters height from the sea level.

All the above hill ranges are covered by dense forest. Among them, Pradhanpat, Kansar, Pravasuni, Rambha Debi, Panguli, Thianal, Mandasila, Pauri, Badataila, Khilei, New Pauari, Khajuria, Sulia Reserve forest are the recorded forest areas of the district. These reserve forests come within the jurisdiction of the Divisional Forest Officer (Terrotorial), Deogarh division. The district is noted for Kendu leaf, Mahul flower and Sal trees. The forests produce a considerable quantity of Lakha, silk, cocoons, resin, bees-wax and honey. The district has thick and inaccessible forest and a large variety of wild life from elephants to rabbits is found especially in Kansar forest, close to Ushakothi Sanctuary.

The finest of waterfalls drops over the sheer southern face of the Pradhanpat-Kaidanta hill ranges. The Pradhanpat and the Korodkot waterfalls are of aesthetic, ecological and historical importance and much visited by lovers of nature for their salubrious milieu. Korodkot is one of the earliest locations where hydro-electricity was generated in Asia. The district has plateau land comprising small valleys shut in on all sides by high hills. Tops of these ranges in all the three blocks of Barkote, Reamal and Tileibani form fine plateaus of level lands but generally run up to a small elevation of some 5 metres at one end above the plateau which averages about 100 metres. These ranges are covered with tall grass and form the feeding ground of graminivorous species of both domestic and wild animals. The largest and finest of these ranges are the Khajuria and the Rambhadebi ranges near Suguda and Laimura plateau in Tileibani Block of the district. At the Barkote pass, the river Bramhani winds round magnificently wooded hills. From the eastern bank of Brahmani, the Paudi Hill ranges tower into a fine watershed from 678 metres high from the sea level.

## Flora

Deogarh district lies within the great Sal belt where the climate is moist. The forest has a tendency to become nearly evergreen. With the Sal are found certain of its usual associates such as Sahaj (*Terminalia tomentosa*) which yields the commonest of all building materials, its bark used for tanning. Bijasal (*Pterocarpus mansupium*) which is also used for building and invariably for bullock- cart axles, Arjun (*Terminalia arjuna*) and Jambu (*Eugenia Jombolana*). In this district, however, Sal forests do not reach their full expression. They are situated chiefly on dry hills or on flat lands where past uncontrolled cultivation has affected soil drainage. As a consequence, a drier type of mixed deciduous species occupies a large portion of the forests. These species include Korda (*Cleistanthus Collinus*) which is very common, Bandhan (*Odina wodien*) Darua (*Anogeissus Latifolia*) and Kendu (*Diospyros Melanoxylon*) which is common everywhere, persisting as a weed in land cleared for cultivation. Its leaves are being extensively collected every spring season for wrapping tobacco for Bidi making. This dry mixed formation has, in its turn, to fight a stern battle with bamboos (*Dendrocalamus strictus*), especially where the underlying rock is a granite or a gneiss. In fact, bamboos pure or mixed with dry deciduous type of forest, approximate in extent to the more valuable and gregarious Sal.

Amongst other trees of economic importance found in the district is teak (*tectona grandis*) which is found only in small plantation, Sisoo or rose wood (*Dalbergia Latifolia*) Gambhari (*Gome Arborea*). From the Harrida (*Terminalia Chebula*) themyrobalans of commerce are obtained and its allied species Bahada (*Terminalia Belarica*) yields an inferior timbers and a fruit which is used medicinally. The wood of Kusum (*Schleichera Trijuga*) is commonly used for making sugar cane and oil pressing, while its fruit is eaten and oil is extracted from its seed. The Simili or silk-cotton tree and *Bambax malabaricum* is common in the forest and also in the open land, the cotton surrounding of the seeds being used to stuff quilts and cushions and the wood for making match sticks.

Among these, conspicuous for their beautiful flowers may be mentioned the plants of Sunari (*cassia fistula*) with long yellow flowers, which have given it the name of the Indian laburnum, and also the Ganiari (*Cochlospermum Gossypium*) a tree with large yellow flowers growing on dry stony slopes. The wood of the latter tree was used by postal runners for torches during night time while its gum furnishes an article of food. Other flowering tree is Palasa (*Butea Frondosa*) remarkable for its brilliant scarlet-orange flowers appearing when the tree is quite leafless. The principal flowering shrubs are the Kharkhasa or siharu (*Nyctanthes Orbon-tristis*) with fragrant yellowish-white flowers used for garlands and also for dyes and the Dhatiki (wood for- diafloribunda) bearing red flowers, which are made into

the vermilion dye so familiar during the Holi festival. Flowering herbaceous plants are few and the most brilliant flowers are found on the trees.

Among small trees or shrubs growing in scrub-jungle may be mentioned the chara (*Buchanania Latifolia*) (the small seed-cernel of this fruit known as *chiraunji* is used as an ingredient to garnish and enhance taste and value of sweet meats. It was being bartered in exchange for salt by the villagers), the graceful Anla (*Phyllanthus emblica*), the leaves of which are used for tarring; another tree is Ghurudu (*Gardenia gummifera*) the gum of which is used medicinally, while its fruit is eaten when ripe, and Damghurudu (*Gardenia Latifolia*) from the wood of which combs are made. On the dry slope of the hills are Salai (*Boswellia Serrata*), Koli (*Sterculia ureas*) and Mai (*Odina Wodier*).

Of the trees growing in the open field one is the Mahul (*Bassia latifolia*) with its lofty spreading foliage. Its flowers are used as an article of food and also for manufacture of country spirit. Babul (*Accacia Arabica*) is a tree favouring black cotton soil and except on the banks of tanks. Pipal (*Ficus religiosa*) are abundant in the open land are also planted in village from religious motives, for they are believed to be resort of the Gods and Goddess of Hindu pantheon. The most common tree planted in groves in the neighbourhood of village is the Mango. Other trees planted for the sake of their fruit are Tentuli (*Tamarindus indica*), Kaitha (*Feronia elephantum*) Panash (*Artocarpus integra folia*) Jambu (*Eugenia jambolana*) Limba (*Meliandica*) is planted freely, as it is supposed to be a disinfectant purifying the air. Karanja (*Pongamia glabra*) is planted for the sake of its fruit and oil extracted from its seeds, which is used medicinally for itches. The following trees are generally planted about the precincts of temple, Bela, Baula, Ashoka. The leaves of Bela are sacred to Lord Shiva, the fragrant star like flowers of Baula are an object of worship and the twigs and leaves of Ashoka are used on festival occasion for festooning the shrines. The Palmyra palm is planted in many villages of the district, as its fruit when ripe is used as an article of food. The date- palm is also common in village shanties. The *Kattang* bamboo is often found planted in town and village areas close to homestead land.

There is dearth of good grazing grasses, but the succulent Duba (*Cynodon dactylon*) grow all over the district on Sandy soil where there is some moisture. The commonest grass of all is the Sukla (*Poilimia argentea*) which is found everywhere in the forests and elevated places, it is really the common fodder grass of the district and is excellent while young. Another grass found all over the district in small quantities is Pannasi (*Pollinia eriopoda*), which is used for rope making and Kans (*Saccharum spontaneum*) which is used in religious ceremonies. There are two weeds of the cassia species, of which Chakhanda (*cassia tora*) is very common; it is eaten when young as a vegetable.



## **Fauna**

Mr.F.Dewar, ICS completed the settlement process of Sambalpur district and the States of Bamanda and Sonepur in 1902-1906. He prepared a monograph on Sambalpur which is incorporated in the District Gazetteer of Sambalpur prepared by Mr.F.C.King in the year 1932. According to the account of Mr.King, Bamanda area then was one of the happiest hunting grounds in Odisha for games by sportsmen. But the depletion of forest have resulted in shrinkage of grazing grounds of wild animals, and have reduced water holes within the forest limits. The available watering places are few and are easily watched by poachers who indulge in mindless killing by night in the hot months. This abuse is very difficult to stop so long as the profitable trade in hides and horns is not restricted resulting in diminution in the number of wild animals and especially of ruminants. Though their numbers have considerably decreased in recent years, tigers are still fairly numerous. Panthers are more common than tigers, though rarely located by the sportsman, they frequent open scrub-jungle throughout the district, and like tigers, are very destructive to cattle.

The wolf is occasionally found. The wild cat and jackal are found all over the district. The Indian black bear is very common in the forest. Wild elephants have reappeared in the south and south west of the district and during their visits cause damage to crops especially in the rice fields adjoining the jungles. The elephants come from Ushakothi Sanctuary (now in Sambalpur district) nearest to Hillang hill range of Kansar Panchayat of Tileibani Block. Snakes, including poisonous Krait, Cobra, and Russell's viper are numerous. The most important animals in this sanctuary are bison, elephant, Sambar, Barking deer, pig, tiger and leopard. They use to come to Hillang hill and Prabhasuni forests of Deogarh district. Among deer, chital or spotted deer, sambar all are fairly well represented, though not plentiful. The red-faced monkey is also frequently encountered along with the 13aoists.

The district also possesses a rich variety of game birds. The common birds are dove, cuckoo, black drongo, kite, lorikeet, raven, partridge, water hen, parrot, peacock, bat, myna, heron are seen in the district. The Ushakothi Sanctuary was controlled by the Bamanda state headquarters, Deogarh. It is now under Bamra forest division of Sambalpur district. It lies about 50 Kms. On N.H. 49 west to Deogarh.

Flora and fauna of the district have been dealt with in fair detail in Chapter-V on Forest Environment and Ecology.

## CHAPTER- II HISTORY

### Pre and Proto History

Deogarh region offers pre-historic evidence of the Palaeolithic Age. Archaeologists have unearthed specimen of hard rock implements like hand-axe in this region to the north of a village called Kutabaga in Sambalpur area. A mention by Mr. V. Bali, an archaeologist of this implement is recorded in the proceedings of Asiatic Society of Bengal in 1876. He described the material of this implement as 'vitreous quartzite', a hard, non-foliated metamorphic rock. Likewise, at Lasa, a village near Kuchinda in the erstwhile Bamanda state implements of polished stone of 'celt' type, resembling an adze or a hoe was discovered. Such findings from the pre-historic period and thereafter in the Palaeolithic Age signify the character, transformation, and progress in the lifestyle of the pre-historic man in this tract.

### Account of Yuan Chawng, Pliny and Cunningham of Odra Desh

The Chinese traveller Yuan Chwang (also spelt as Hiuen Tsang or Xuanzang) who passed by *Wu-Cha* or *Wu-Tu* which approximately corresponds to Odra Desh, the present day Odisha, in course of his sojourn in India in about 636 B.C.E. mentioned in his travel accounts that "it (Odisha) was about 7000 li (one li equals about 500 meters or 1640 feet) in circuit and its capital over 20 li in circuit. The soil was rich and fertile yielding fruits larger than those of other lands, and its rare plants and noted flowers could not be enumerated; the climate hot, the people were of violent ways, tall and of dark complexion".

The political limits of *Wu-Cha* (Odra) Country which was 7000 li or 1400 miles in circuit was very extensive and General Cunningham writes, "The ancient province of Odra was limited to the valley of the Mahanadi and the lower covers of the Suvarnarekha river. It comprised the whole of the present districts of undivided Cuttack and Sambalpur and a portion of Midnapore. It was bounded on the West by Gondwana, on the North by the wild states of Jashpur and Singhbhum, on the East by the Sea, and on the South by Ganjam". These must also have been the limits in the time of Yuan Chwang's visit.

The capital was where Mount Maleves stands and *Sharis* and *Monindas* were living as mentioned in the "Natural History" of Pliny during the first century B.C.E. The mount 'Maleves' can be identified with Malayagiri or Malyagiri near present day Pallahara, adjacent to Deogarh and *Sharis* and *Monindas* with Savaras and Mundas who inhabit the land to this day in

the former Bamanda state, now approximately the present Deogarh district along with the Konds, Bhuiyans and Gonds.

### **Bamanda in Antiquity**

It is difficult to know the pre-history of Bamanda due to the absence of any credible and verifiable records. Some classical literature make mention of this land. Like in the Artha Sastra of Kautilya, it is mentioned as 'Indravana' situated between the river Brahmani in the East and the Mahanadi in the West. There is an ancient statue, which is locally addressed as 'Mahabhairava' at Bhatsingh in the Western part of Bamanda. No historical evidence has been unearthed yet to establish the origin and time of this image, which in present time is worshipped as Samaleswari by the people. Rambhadebi of Sarankote near Barkote is a famous place; but no credible historical record is traceable about its time of origin or purport. It is believed that these icons and edifices belonged to the period when Buddhism flourished in Odisha as evident from relics found in the riverbed of Brahmani and the inscribed script found from Balitakhandi of Barkote. The text of 'Aksharsila' rock inscription has been deciphered by some scholars of Bamanda as "Bichhitra Srayana" and "Bichitra Bhusanashya". The rock inscription due to ignorance, negligence and lack of protection has been vandalised. If it is not properly protected, it is likely to get totally obliterated causing loss to the heritage of Deogarh district.



**Aksharsila as it stands now**

## Traces of Primitive Human Habitat

There is a rock shelter and rock art site atop a hill described as 'Mathagumpha' by the locals at Kanjiam about 65 kilometres from Deogarh, 5 kilometres from the Kundheigola Police station, one kilometre west of Ranchi-Vijayawada National Highway No. 200. On the walls of the cave there are some inscribed rock art depicting various geometrical figures, sketches resembling wild animals along with imprints of human palm, crescent-like shapes pointing at human habitation and artistic expression of pre-historic times. Such rock art have been located at Balita near Barkote also.

In this context, it is pertinent to note that long before the introduction of any regular script in India, ancient man has left at Vikramkhol, a rock shelter 25 kilometres to the west of Jharsuguda Railway junction in Jharsuguda district, an inscription that remains un-deciphered. The rock shelter is of rough sandstone and is 35.05 metres in length and 8.53 metres in height from the floor. Dr. K.P. Jayaswal, a renowned geo-archaeologist after thorough examination, in an article published in the 'Indian Antiquary' (VOL. LXII-page 58-60), opined, "Characters in Vikramkhol inscription belong to a period intermediary between the script of Mohenjo-Daro of the Indus Valley Civilization and Brahmi. Some letters retain their original proto-Brahmi forms. The writing seems to be from right to left. There is an animal figure, which is probably not a part of the writing, but a graphic symbol. The writing seems to have reached the syllabary (alphabetic) stage". It is certainly as Dr. Jayaswal concludes, "earlier than the earliest specimen of Brahmi known so far". Such pre-historic finds are indications of a civilization that flourished in this area in the far distant past and the primitive inhabitants have their marks to be studied and interpreted in the present time in a systematic manner to determine the ways and means of life and living of the people of yore.

## Traces of Buddhist influence

The entire western Odisha in early 8<sup>th</sup> century C.E. was under the sway of Buddhism. Evidences in the form of various structures have been unearthed and excavated in this region to establish the presence of Buddhist institutions. One such site is a mound resembling a Buddhist '*stupa*' located at Ganiapali village near Melchhamunda in Bargarh district. The Gandhamardan described as *Palimalokili* in Pali or *Parimalgiri* in Sanskrit have revealed ancient Buddhist relics. In this regard, Kanjiam cave, 65 kilometres south from Deogarh, *Aksharsila*, 25 Kms. East from Deogarh and Rambhadebi 6 kilometres southeast from Deogarh may be indicating at ancient Buddhist ruins and relics. There is sufficient indication to show that Bamanda region was a seat of Tantrism, which led to the establishment of

Tantrik sites at Pradhanpat, Panchkhanda and Rambhadebi, the seat of maidens. More investigation and systematic study is required of these sites in this district. According to the *Madalapanji*, a chronological record of rites and rituals of the Puri Jagannath temple, King Sadananda Deb of Bamanda brought in and settled in Bamanda one Jagannath Dwibedy along with Hari Saran Dwibedy and four others of their line who practised and preached *Dasamaha Bidya* in this region.

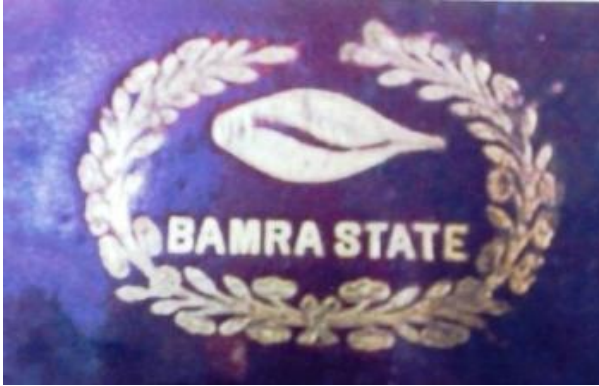
### **Mandalas and Dynastic Rule**

During the emergence of Mandala states in the Odisha tract, Bamanda was not in any of the Mandals like Khinjali Mandala, Khijingi Mandal, Airavata Mandala, Yamagarta Mandal, Bonai Mandala or Kodalaka Mandala. The Khinjali in the south of Odisha and Khijingi Mandals in the north were under the Bhanja rulers. The Airavata Mandal was with the Nandas. The Kodalaka Mandal was ruled by the Sulkis and Bonai Mandal by the Kadambas. The Tungas were the masters of the Yamagarta Mandal. Bamanda is not mentioned as either a part of any of the Mandals nor as an exclusive Mandal. So it is natural to say that Bamanda was under the Soma dynasty when they were ruling over Koshala between 8<sup>th</sup> and 9<sup>th</sup> century C.E.

### **The Matharas and the Somavamshis**

There is scanty authentic historical evidence to delineate the distant past of the rulers and royalty of this land. According to myth, legend, and recorded history, the Bamanda tract was under the Matharas. The royalty of these feudal lords dates back to the 5<sup>th</sup> Century C.E. when the Mathara royal family had suzerainty over this land. Their kingdom spread over a large tract in the Kalinga Empire extending from the Mahanadi in the North to the Krishna in the South. Thereafter rulers of the Ganga dynasty took possession of Bamanda. This royal family remained obscure after their decline and fall in about 500 C.E. In the 10<sup>th</sup> Century C.E. the scions of this family were found to be the rulers of Bamanda Dandapata under the overlordship of the Somavanshi rulers of Koshala. A copper plate inscription found from the village Kudopali in Bargarh district reveals that Ranaka Punja, son of Boda was ruling over Bamanda in the 13<sup>th</sup> regnal year of his overlord Bhimaratha, a Somavanshi king. The Matharas were ousted from power after the fall of the Somavanshis and Western Odisha including the Bamanda region came under the rule of the Kalachuris of Ratanpur in the early 11 Century C.E. The Gangavanshis of Utkala, roughly analogous to present day Odisha occupied the Bamanda region around early 12<sup>th</sup> century C.E.

## The Gangas of Bamanda



**The Royal Emblem of the Gangas of Bamanda**

In the absence of any verifiable records and multiplicity of sources not so credible, most of the historical narrative about the ruling dynasties and their regime rely on records and other literary works of authors including members of the royal house. According to documents preserved by the 'Darbar' of the former rulers of Bamanda and also by popular traditions, the first Ganga ruler of Bamanda was the son of Hattahamir Deb, the last of the Ganga kings of Patna, the present day Balangir. He was defeated and killed in or around the year 1191 C.E. by Ramai Deb, the founder of Chauhan rule in Patna. As the lore goes, after Hattahamir Deb, the last Somavanshi king was killed, his only son Saraju Deb was smuggled out of Patna by Suna Kandha of Katangapani and Kantaru Bhuyan of Kelipadar of Bamanda. These brave tribal chieftains installed Saraju Deb as the independent ruler of Bamanda. Saraju Gangadeb is considered the first ruler of Bamanda who was enthroned at Tikilipada, a place near Jamankira now in the Kuchinda Sub-Division of Sambalpur district. Later the capital shifted to Deogarh under the sylvan surrounding of the Padhanpat hills close to the cascading scenic waterfalls. This account lingering in the collective memory of the people of Bamanda appears to be more a lore in nature and is not corroborated by any credible historical evidence or record.

The sequence of succession thereafter until the merger of the state of Bamanda with the Union of India on 1<sup>st</sup> January 1948 is both hazy and sketchy. However, according to history recorded by 18aoists18mia18 amateur authors and by oral tradition, Saraju Deb was succeeded by his son Raj Narayan Deb and the latter by his son Jagannath Deb. Gangadhara Deb succeeded Jagannath Deb and the line of succession continued with Jag Jyesthi Tribhuban Deb ascending the throne.

Rudranarayan Deb who succeeded next was known to be a great strategist and powerful king and had annexed some territory of the Kalachuris by defeating them. He brought the 'Kanak Durga' icon from the Bheden riverbed in Kuchinda and installed the deity in Deogarh which is the guardian deity of the Deogarh royals and is *in situ* at the precinct of the Palace. Rudra Narayan Deb being a benevolent despot was a patron of Bramhins of learning and settled them in several villages through royal grants. He was equally considerate of the tribal chieftains who formed a larger part of his army and helped win his campaigns. One Chemta Suda, a tribal headman was awarded the Katarkela *jagir* by Rudra Narayan Deb for the help rendered during the campaign against the Kalachuris. After Rudra Narayan Deb successors were Kanphoda Sudhal Deb and followed by Raghunath Deb. Raghunath Deb faced an uprising by the Kandhs and for a short spell of time had shifted the capital from Deogarh to Suguda. The next to succeed was Kasturi Deb who reverted the capital to Deogarh. The tenure of the previously mentioned rulers since the time of Saraju Deb until the time of Kasturi Deb remains vague for want of any verifiable record.

However, from *Sambad* 1602 corresponding to 1545 C.E. a chronological sequential and years reign of Kings of Bamanda including the period and spells of Regency is available as follows.

Raja Ram Chandra Deb	-	1545-1578
Raja Bikram Deb	-	1578-1625
Raja Haru Deb	-	1625-1641
Raja Chandra Sekhar	-	1641-1673
Raja Bhagirath Deb	-	1673-1713
Raja Pratap Deb	-	1713-1745
Raja Sidasar Deb	-	1745-1779
Raja Arjun Deb	-	1779-1819
Raja Balunkabrusabha Deb	-	1819-1834
Raja Khageshwar Deb	-	1832
Raja Braja Sundar Deb	-	1832-1869
Regency	-	1869-1871
Raja Sir Basudeb Sudhal Deb	-	1871-1903
Raja Satchidananda Tribhuban Deb-		1903-1916
Raja Dibyashankar Sudhal Deb	-	1916-1920
Regency	-	1920-1935
Raja Bhanuganga Tribhuban Deb	-	1920-1948

Another interesting fact is the relationship between the Gangas of Bamanda and the Gajapati King of Puri. Of the three sons of Raja Satchidananda Tribhuban Deb, Lal Mohini Mohan Deb, the third son was adopted by the Gajapati King Mukunda Deva III on 2<sup>nd</sup> October, 1918 and assumed the customary name Gajapati Raja Ramachandra Deb IV.

## Illustrious and Important Rulers of Bamanda



**Raja Sir Basudeb Sudhal Deb, KCIE**  
(11.05.1851 – 9.11.1903)



**Raja Satchidananda Tribhuban Deb**  
(03.05.1872 – 11.03.1916)



**Raja Divya Shankar Sudhal Deb, CBE**  
(25.02.1914 – 10.05.1982)



**Raja Bhanuganga Tribhuban Deb**  
(18.09.1890 -01.01.1920)





**Raja Satchidananda with the Queen Consort**

With its separate territorial identity, Bamanda originally formed one of the Sambalpur or Patna Gadajat group, the Chiefs of which were de facto independent but regarded the Raja of Patna (Balangir) and subsequently of Sambalpur, the most powerful of their number as the first among the confederate of eighteen Gadjats. Much after Sambalpur came under direct British rule after the turbulent times of the rebellion by Surndra sai, Raja Braja Sundar Deb of Bamanda received in 1865 C.E. from the British Government an adoption *sanad*, and in 1867 C.E. through another *sanad* he was granted the status of Feudatory Chief.



**The Deogarh Palace in the past**

## End of Maratha Dominance in Odisha

On 17 December 1803, the Maratha rule in Odisha ended. Raghoji II, the Bhonsla of Nagpur signed the Treaty of Deogaon, with the British after the defeat of the Maratha forces at the Battle of Laswari and ceded the province of Cuttack which included *Mughalbandi*, the coastal part of Odisha, Balasore port, parts of Midnapore tract of Bengal and some of the *Gadjats*, to the British East India Company.

According to the 10<sup>th</sup> Article of the Deogaon treaty Sambalpur or Patna (Balangir) group of Gadjats which included Bamanda remained with the Bhonsla of Nagpur for a few more years till 1817. After capturing Sambalpur, the British were not interested to leave it at the hands of the Chouhans because of the internecine conflict for succession. Before the treaty of Deogaon the company government maintained security of and friendship with some of the Gadjat states of Sambalpur. The state of Bamanda also came under this treaty.

## British Occupation and Protectorate

The Rajas of Bamanda had surrendered themselves to the British Government completely to save their power and position, more so their identity. They did not hesitate to oblige them. Bhup Singh, a confidant of the Bhonsla was appointed as the '*Kamdar*' or Manager at Sambalpur by the Marathas in the year 1803. When differences of opinion arose with his masters on account of his arrogance and defiance of the Nagpur authority, Bhup Singh, a highly ambitious person to gain total control of the territory, placed the titular Queen Rani Ratan Kumari of Sambalpur at a secured place in the Sultikira forest of Bamanda and retreated to Hazaribagh. Rani Ratan Kumari spent four years in that jungle. Anticipating complicity and possible anarchy, by this deed of the Kamdar and also the Maratha domination in disarray, the British Lt. Colonel Broughton finally expelled the Marathas from Sambalpur in the year 1804 and restored the throne of Sambalpur to Rani Ratan Kumari and treated the territory as a British protectorate. This was done at the behest of Rani Ratan Kumari and with the explicit consent of other Gadjat Rajas and Zamindars, who had written a letter dated 29<sup>th</sup> March, 1804 to Lt. Colonel Broughton which read,

*"We have been obliged to get your letter and gone through it carefully. We voluntarily accept the command of the British Government as per the commitment given to us. Our security, hope, aspirations and improvement are dependent upon your highness. Our happiness was not under the command of the Marhata government. The reputation and the wealth of our families were always in danger during their reign. We had been terrified at their tournament. How could we voluntarily accept their rule and think ourselves secure when our happiness and*

*wealth of our families had been sinking? We are desirous to remain completely under the control of the British Raj, and it depends upon the mercy of your highness. As you have written about the taxes, we would like to submit that previously we were paying our dues to our Raja (Raja of Sambalpur) and he was depositing the same to the Marhatas. When they invaded our states, there had been no fresh agreement for the last three years. They were collecting forcefully and with torture, according to their will. Your highness is our Master. We promise to deposit the taxes regularly, without any hesitation to your highness as your highness would be pleased to access, keeping in view our income from lands. Neither we nor our family members would accept anybody as our Master except the Company. We would always accept the command of your highness and pay kingly regards to your highness. We hope, kindly take steps, so that we would remain under the command of the British Raj for ever because your highness is our rescuer”.*

Signed,

Rani Ratna Kumari Kohar, Sambalpur  
Raja Jujar Singh, Raigarh  
Raja Biswanath Sahi, Sarangagarh  
Bauria Rani Laxmipriya, Sanpur  
Birabhadra Jena, Rairakhol  
Raja Indersu Deo, Gangpur  
Raja Tribhuban Deb, Bamanda  
Raja Inder Deo, Bonai  
Debasiva Singh, Sakti  
Thakur Ranjit Singh, Bargarh

*(Source: Veer Surendra Sai, Page 278-279, By Anirudha Dash)*

Earlier on 26<sup>th</sup> March 1804 Broughton asked the queen of Sambalpur, through a letter, whether all the Rulers of the Sambalpur groups of States accepted the over-lordship of the Bhonsala of Nagpur. The letter of 29<sup>th</sup> March was a reply to the letter of Broughton. On 23<sup>rd</sup> November the same year Governor-General Wellesley informed all the kings of Sambalpur group of States that they were part of the British territory in India. For the security of Patna and Sambalpur region he established an army contingent at Sambalpur. In the year 1806 the British returned Sambalpur groups of States to the Bhonsla.

After the third Maratha war again the state of Sambalpur came under the British administration as a result of the treaty made in the year 1811 by the East India Company and Appa Sahib, a regent of the Bhonsla of Nagpur.

At that time 'Bamanda' was one of the Gadajat states came under the British administration.

In 1860, Sambalpur was separated from Odisha and included in Bengal Presidency. For better administration Central Province (present day Madhya Pradesh and Chattisgarh) was created in 1861. As a result, in the month of April 1862 Bamanda, Sambalpur, Patna, Rairakhol, Kalahandi and Sonapur states were brought under Chhatisgarh Division of the Central Province. Much later, on linguistic consideration all these princely states being Odia speaking area were brought back to the administrative jurisdiction of the Commissioner of Odisha Division in 1905.

British nomenclature of the coastal Gadajats was 'tributary' states where as the Gadajats of Sambalpur were known as the 'feudatory' states. Indicating the apparent difference between these two terms, Erickson, a British officer writes, "Tributary is not necessarily feudatory. The word feudatory devotes the subordination of territorial sovereignty to the common superior combined with the obligation to discharge certain duties and render certain services to that superior". In 1867 the King of Bamanda was regarded as 'Feudatory chief'. In internal administration Bamanda got independence, but on other matters like any negotiation, agreement or contracts remained subservient to the British.

### **Conflict, Intrigues and Unrest**

The State of Bamanda was not without internecine conflict, palace intrigue, confrontation and skirmishes with neighbouring states, resulting in sporadic unrest, revolt and rebellion by the primitive native tribes, coupled with alliances of mutual convenience with other States through matrimony or because of prudent statecraft and diplomatic necessities.

Bamanda had an uninterrupted reign of a singular dynasty, the Gangas as available from Darbar records and current history from the middle of the 16<sup>th</sup> century till the middle of the 20<sup>th</sup> century. In the absence of any other authentic recorded document or other scriptural material like edicts, copper plate grants, *firman* or numismatic evidence, it is well nigh impossible to describe the distant past of the Ganaga dynastic rule in Bamanda in a credible manner. However, the times of King Braja Sundar Deb were though not turbulent, were not all peace either. Two events of this period are of importance which in the long run influenced the history and governance of Bamanda State. One was during the Angul unrest.

### **British Annexation of Angul**

Angul was a separate princely state almost adjoining Bamanda with only two other small state Pallahara and Rairakhol intervening them.

Somanath Singh was the last king of Angul and ruled from 1814 C.E to 1847 C.E with considerable efficiency till he was deposed by the British East India Company administration on allegations of 'misrule'. He had, for his aggressive stance towards the neighbouring States, incurred displeasure of the Feudatory Chiefs of Dhenkanal, Hindol, Daspalla, Baudh, and Athmallik on one hand, and the British authorities on the other. Then Commissioner of Odisha, described the King of Angul in one of his reports as "an intelligent though eccentric man but is withal proud and head-strong and the most refractory of all Chieftains and the most likely to come into collision with the constituted authorities".

The forced eviction and incarceration of the Raja Somanath of Angul, denial of succession to his progeny and appropriation of the State by the British in the near neighbourhood of Bamanda was signal enough for the Raja Braja Sundar Deb of Bamanda to remain in the good books of the British authorities, who by then had proven their machinations and might in many parts of India and had through deceit and tricky treaties and *sanads* had gained control over the princely states which became titular and subservient to the British power. During the Angul upheaval to keep the kingdom and his own position safe the Raja of Bamanda covertly assisted the British administration. As a reward Raja Braja Sundara Deb received the title of "Maharaja Bahadur" from British and pair '*topa*', cannon made of brass as memento.

### **Surendra Sai and the Rebellion**

Another instance of intrigue and upheaval happened during the rebellion in Sambalpur led by Surendra Sai, a Chouhan scion opposing the British power and staking claim over the Sambalpur throne. This rebellion locally known as '*ulgulan*' preceded the 1857 uprising in India which the Colonial and European historians term as the Sepoy Mutiny which in fact was the First War of Independence in India.

The genesis of the rebellion was due to the tricks played and interference of the British Rulers in the matter of succession to the Sambalpur throne. On the demise of Maharaja Sai, the Raja of Sambalpur (1820-1827) without leaving a male heir in the line of succession, Sambalpur was left in a state of flux and turmoil. It was the dowager queen Mohan Kumari (1827-1833) who was enthroned and held the reins of rule which led to disastrous consequences. By then the British had rested power from the Marathas in Odisha and were in a spree of territorial expansion. Watching with caution the developments in Sambalpur, they located one Narayan Singh, an obscure, weak and remote sibling of the Couhan ruling family drawing lineage from a cadet branch of King Ratan Singh. Rani Mohan Kumari was inclined to get Narayan Singh as her substitute, as in the past had he had served as her body guard.

Surendra Sai, a scion of the Chouhan dynasty whose lineage could be traced to Madhukar Sai, the fourth King of Sambalpur too was among the claimants to the throne of Sambalpur. Another claimant was the *Zamindar* of Jharsuguda Govind Singh, who too rebelled against the British authority.

The rebel leader Surendra Sai had organised a militia with local Gonds and other tribes with the explicit support and participation of some other Zamindars of Sambalpur. The British forces were ambushed and were put to great disadvantage in quelling the rebellion. They had sought assistance of other feudatory chiefs of the Sambalpur region as they suspected either their covert support to the rebels or involvement of some of their subjects in the rebellion. One such person was Chandra Behera, a Kandha *Zamindar* of Bamanda, who rendered help to Govind Singh of Jharsuguda. Despite the warning of the British officers, Raja Braja Sundar Deb of Bamanda could not control him. In confrontation with the British Army at Kenghati in Sambalpur district close to the border of Bamanda many tribal rebel foot soldiers lost their lives. On 22<sup>nd</sup> June, 1833 Chandra Behera and his associates were captured by the British forces led by Captain Wilkinson. Other Kandha leaders taken prisoners were Krushna Behera and Krupasindhu Behera. All the gallant fighters of this rebellion led by Surendra Sai were either injured while fighting or died. Surendra Sai and most male members of his family were captured and sentenced to imprisonment at the Hazaribagh jail. The rebellion was only temporarily suppressed. When in 1857 the Hazaribagh jail break was caused by the sepoys of Bihar all the prisoners along with Surendra Sai escaped and the temporary lull in Sambalpur ended. The fire of freedom was ignited again and the militia of Surendra Sai raised the banner of revolt against the British. In 1862 Raja Braja Sundar Tribhuban Deb informed the British authorities of the complicity of one Srikrishna Behera, a landlord of his State who had joined hands with the rebel forces of Surendra Sai. This the Raja did purportedly with the apprehension that his kingdom too may get engulfed by the raising flames of the rebellion. But this phase also was short-lived and due to betrayal some close associates of Surendra Sai he was apprehended by the British forces. The uprising was suppressed ruthlessly, culminating in the arrest and incarceration of the tallest and bravest among the leaders, Surendra Sai in the fort prison of Asirgarh in the Central Province (now Madhya Pradesh).

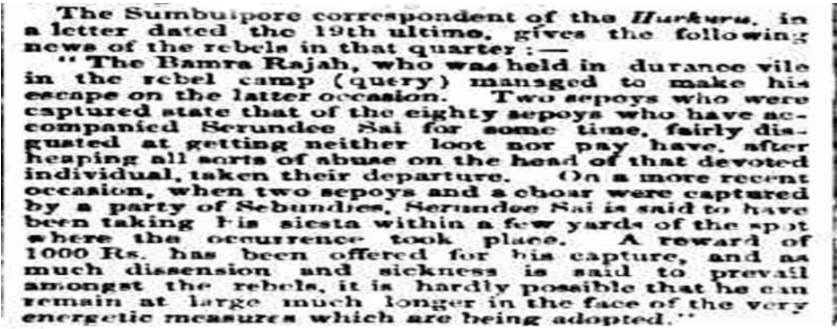
Historians and scholars have interpreted these events and the role of Raja Braja Sundar Tribhuban Deb in different light. According to them though the Bamanda Darbar did not assist the British forces it was maintaining a safer distance from the rebels, some of whom were Kandha chieftains of Bamanda. This could be due to the apprehensive memory emanating from the earlier event of Somanath Deb, the King of Angul having been dispossessed of his kingdom and Angul becoming a Khas-mahal, a directly administered British territory over three decades back.

On the other hand, the Raja of Gangapur in course of this event remained loyal to the British. The Raja of Bamanda and the Raja of Gangpur were in amicable relationship. This must have influenced the judgement of Raja Braja Sundar Deb not to antagonise the British power in his own interest and to save his state from going into the direct administrative control of the Company administration.

### **An amusing and strange news item**

A strange news item, which appears incredible and did not amuse many readers then and in current times was published in far away Australia, a British colony and dominion in the *Sydney Morning Herald* on Friday, the 13<sup>th</sup> April, 1842 quoting another newspaper of lesser familiarity reads thus.

*"The Sumbulpore Correspondent of the 'Hurkura' in a letter dated the 19<sup>th</sup> ultimo, gives the following news of the rebels in that quarter : "The Bamra Rajah, who was held in durance vile in the rebel camp (query) managed to make his escape on the latter occasion. Two sepoy's who were captured state that of the 80 sepoy's who have accompanied Serundee Sai for sometime fairly disgusted at getting neither loot nor pay have, after heaping all sorts of abuse on the head of that devoted individual, taken their departure. On a more recent occasion, when two sepoy's and a choar (sic) were captured by a party of Sebondies, Serundee Sai is said to have been taking his siesta within a few yard of the spot where the occurrence took place. A reward of 1000 Rs. Has been offered for his capture and as much dissension and sickness is said to prevail amongst the rebels, it is hardly possible that he can remain at large much longer in the face of very energetic measures which are being adopted."*



Facsimile of the news item in *The Sydney Morning Herald* on Friday, the 13<sup>th</sup> April, 1842

It is difficult to vouch safe on the veracity of this news report. The aforesaid report is a product of colonial mindset and is disputable. This is mentioned here as an example of British colonial perception about the freedom fighters and as a means to divide and rule.

At that time, the Raja of Bamanda was not in the good book of the British authority at Sambalpur. The reason was, the 'Paikas' of Bamanda had looted several times the villages close to the boundary of Bamanda State in the Khas-mahal area of Sambalpur. The Deputy Commissioner of Sambalpur J. Smith brought these facts to the notice of the Commissioner of Cuttack who in turn realising that the Bamanda Raja was not able to restrain his Paikas, a British Police force should be deployed to control the marauding Paikas of Bamanda. This was an instance and reason due to which Bamanda came into the close supervisory administrative control of the British Government.

On the other hand, Captain Bootch, the British Officer located at Singhbhum and the Commissioner of Chhotanagpur were having a liberal view of the Raja of Bamanda. Captain Bootch had written that the Bamanda Royal family was desirous of helping the British, but due to indifference of the British Government, they were facing internal unrest resulting in misery to the farmers and loss to the royal treasury. This enraged the rebel leaders, more so Surendra Sai which strained the relationship between him and the Bamanda royals, despite the past matrimonial alliances between the Sambalpur royalty and the Bamanda ruling family.

Captain Wilkinson with the hope of gaining peace took certain reconciliatory action and restored the estates earlier confiscated by the Marathas of certain zamindars. One such estate was the zamindari of Kudabaga which was restored to Balabhadra Sai of Bamanda. At the same time, to quell the growing agitation Captain Wilkinson deployed a contingent of British soldiers at Sambalpur to assist the dowager queen Mohankumari. But this arrangement did not have any effect on the rebels led by Surendra Sai.

The struggle continued even after the Revolt of 1857 ended with severe consequences. But Sambalpur had lapsed into British hands. With the 1857 uprising quelled, the control of the East India Company ended and the whole of India as a colony came under the direct control of the British Crown. The over-lordship of Sambalpur over the group of eighteen Gadjats had ceased. Those were the days of Raja Braja Sundar Deb of Bamanda. He received in 1865 C.E. from the British Government an adoption *sanad*, and in two years after 1867 C.E. through another *sanad* he was granted the status of Feudatory Chief. In later years Bamanda saw better times and fairly enlightened and benevolent rulers, with only stray events of dissension and disturbance of lesser significance.





**The King of Bamanda with European Officers and guests in front of Court Building**



**A musical soiree in Bamanda Palace (Circa 1924) Personal Life and Liberty under Feudal System**

Though the Rajas were working for the materialistic development of their state, the people had no personal liberty. For instance the Bamanda

Darbar ruled that no student howsoever talented would be allowed to pursue higher studies without the explicit consent of and permission from the King. Bamanda State had facility for conditional scholarships to pursue higher study that after successful completion of the course, the student beneficiary would have to render compulsory service for the State. This a common practice in other Gadjats too. If any person, even though not a stranger was visiting a village as a personal guest, the village Choukidar was investigating about the visitor and reporting to the nearest police station about him. Such surveillance violated the tenet of free movement and personal liberty. In case of even slightest suspicion, the visitor was being rigorously interrogated and even deported out of the State on the slightest suspicion of his intent.

Even personal wealth, life style, acquisition of movable and immovable property were being watched very closely and investigated. Apparently, an air of benevolent despotism prevailed in Bamanda, but not without the feudalistic characteristics. Due to the diplomatic acquiescence the British Government only in rare cases was critical and punitive towards the dictatorial Rajas of the Gadjats. Such colonial and feudalistic dispensation was the cause of uprisings by the people in Gadjat states. Bamanda was no exception to this.

### **Bethi and Begari System**

There were very oppressive medieval practices which needed abolition. Of these oppressive systems '*Bethi*' and '*Begari*' were the most common practices in the Gadjats precluding Bamanda. These were types of labour akin to indentured labour and exploitative in nature, without any relief or remuneration to the persons engaged. The most exploitative of them are enlisted below.

#### ***Khara Bethi***

People were working without wages for construction or renovation of houses for state employees or members of Raj families. Supplying fire wood for hospital, jail and the electrical powerhouse free of cost.

#### ***Sadak Bethi***

Every year, after rainy season the road from the capital town of Deogarh to the railway station Bamra, along with major State roads were being repaired and the worn out wooden bridges were restored by deploying labour force without or minimal wages.

#### ***Badabandi Bethi***

Fences were made at the State's garden at Deogarh, Kuchinda, Govindpur and Barkote free of cost. Apart from that fences were made at the

Palace and other State employees, various Police Stations and outposts, offices and residence of forest officers free of cost.

### ***Hati Kheda Bethi***

To catch elephants found in great number in the forest of Deogarh and to tame them 'Khedas' were organised. Bethi labour was deployed for this hazardous task without any remuneration to the labour force engaged. At the time of harvesting of the 'Khamar' crop, which was the exclusive yield of the royal family people were engaged for erecting wooden fences locally known as 'Jagatbedha' with logs to protect the harvesting ground which was a target of the marauding herds of elephants.

### ***Haka Bethi***

This atrocious practice was enforced for the gaming sports and amusement of the Raja and his family members, and other high and mighty. This was a part of hunting expedition in the wild. The Police and employees of forest department were collecting hundreds of people from various villages on the fringe of dense forest and preparing hunting platform on trees known as 'Machans'. Wild animals were being herded by beating drums and by generating noise to scare them and bring them close to sight of the hunters on the 'Machans' for easy and sure shot.

### ***Garabandha Bethi***

For hunting tigers, very close to the 'Machan' a bait of a live graminivorous domestic animal was tied to allure the carnivore. This dangerous task for the amusement of the high and mighty was being performed by 'Bethias' risking their own life.

### ***Shikari Bethi***

During hunting expeditions of the royalty people were being engaged as camp followers and provision carriers into deep jungle without any protection, free of cost leaving behind their normal chore.

Bamanda's Revenue Rule-1929 was too harsh. Gountias were treated as employees. They were enjoying "Bhogara Jamin" free of rent. The Collection of land revenue was entrusted to them, for that they were getting commission.

People had no right to sale, donate or mortgage their land. There was provision for sublet upto next settlement with prior sanction of the Raj Darbar. The recommendation of gountias were needed for any kind of sanction of the Darbar. The gountias were enjoying vast power and ruling according to their will. They had the power to expel a tenant from a village

being deprived him of his land. No criminal was allowed to shelter in a village of a gountia as per the '*hakiyat gountia patta*'.

As per Bamanda Revenue Rule, the people were divided into 3 (three) categories.

Class- I *Marwari* and *Bania*.

Class-II *Kshatriya*, *Brahmin*, *Chasa*, *Kulta*, *Agharia*, and others not included in Class – I.

Class-III *Kandha*, *Gand*, *Kolha*, *Munda*, *Oram*, *Bhuyan*, *Khadia*, *Jhara*, *Lodha*, *Tuni*, *Binjhar*, *Tantia*, *Kisan*, *Pan*, *Ghasi* and *Bhata*.

Similarly, the villagers were divided into 6 (six) categories. (1) *Khamar* village of Raja (2) *Kharposh* village, (3) *Donation* village (4) *Bramhator* or *Debattar* village, (5) *Gounti* village and (6) *Patuari* village.

### **Towards Freedom: People's movement in Bamanda**

British Government helped the Rajas whenever people rebelled in their states against the Raja. Such an occasion arose during the reign of Raja Satchidananda Tribhuban Deb when family members of Sadananda Mohapatra, namely, Chhala, Abila and Chhabila Mohapatra of Tangarpali rebelled against the Raja. Their demand was, their 'Zamindari' should not be subservient to and a subsidiary part of the Bamanda State. They wanted a separate State to be carved out with all the powers and privileges of the Gadajats as a British protectorate. The rebellion though not of much consequence sufficiently disturbed the Raja and he was compelled to seek intervention of the British. A trickery was played on Chhala, Abila and Chhabila who were asked to come to Mahulpali Police Station on a specific date to receive the '*Sanad*' from His Majesty the King Emperor of the Indian Empire through the Raja of Bamanda in fulfilment of their demand for a separate territory. On arrival of the three brothers, as planned they were taken into custody at Mahulpali by the British forces in the presence of Raja Satchidananda Tribhuban Deb and were sentenced to various terms of rigorous imprisonment. Thus the inconsequential and momentary unrest was quelled.

In 1905, based on the language issue Sambalpur was brought to the Odisha division from the Central Province, thus Bamanda also became a Gadajat under the Odisha division. Again in 1933, the twenty six Gadajat States of Odisha along with Bamanda were kept under the newly created 'Eastern State Agency'. The Gadajat states were divided into four categories graded as 'A', 'B', 'C' and 'D' based on their area, revenue, conduct, manners, system and strength of administration. Bamanda was accorded

the status of an 'A' category tributary state which in future impacted its status and claim to become a district after merger.

Dayananda Satpathy, a teacher serving as the Head Pandit at Paruabhadi Primary School of Kuchinda was a person of radical ideas and was influenced by Gandhian philosophy of Swaraj. With sensitivity and concern he watched the plight of the peasants and the people of Bamanda. At this juncture, Satpathy came in contact and developed friendship with Nilamani Mohapatra, a former student of Satyabadi Vana Vidyalaya serving as a teacher in the Middle Vernacular School at Deogarh. Satyabadi Vana Vidyalaya was a pioneering institute set up by stalwarts like Gopabandhu Das and Nilakantha Das with Gandhian value and political vision of the Indian National Congress to achieve freedom for India. This relationship between Dayananda Satpathy and Nilamani Mohapatra brought to Bamanda a whiff of fresh air of personal liberty.

Dayananda Satpathy was agitated because of the apathy of the so-called benevolent rulers and exploitation of the simple tribals and other villagers who in addition to payment of rent and taxes in the shape of '*Malguzari*' were forced to serve gratis the royals and the State officials.

Danayanada kept himself abreast of the developments of India's Freedom Movement and became a political activist. He was moved by the apathy and atrocity of the state towards the people and got it highlighted in the weekly Odia newspaper "Asha" published from Berhampur in the year 1928. This awakened the conscience of the people of Odisha and also the British authorities.

Bhubanananda Das, an active member of the Indian National Congress and a member of the Legislative Council of Bihar and Odisha agitated the matter before the Council citing the news item published in the 'Asha' urging the Government to look into the matter. Worried by such events Bamanda Raj-Darbar summoned Dayananda Satpathy to ascertain his role in the publication of the news. Dayananada boldly agreed about sending the news to the 'Asha'. After that he was declared a *persona non grata* and all his property confiscated. Dayananda Satpathy was excommunicated from Bamanda for life and settled at Sambalpur. He played an important role during the protest and agitation against the Hirakud dam and subsequently joined the Communist Party of India.

Intermittently agitations by people were staged between the year 1908 and 1928 in Bamanda though in a lower scale due to exorbitant hike in land revenue. In those agitations, leadership was taken by Hara Pradhan, Bhagabata Pradhan, Jagannath Garnaik and Daitary Hota respectively. In 1929, the people's agitation became violent. The land settlement work was

completed by the British Administrator H. Mac Pherson during the Regency as the crown prince was a minor. The land revenue was hiked by four times after fresh assessment. Revenue of prime land was fixed at three and half rupees an acre. The price of rice was 32 Baleswari Sera (there were two measures known as Cuttacki Sera and Baleswari Sera which were lesser in weight than the present one kilogram) per one rupee. In the year 1929 farming was done in the most traditional manner resulting in very low yield. Hike in land revenue coupled with the 'Bethi' and 'Begar' system was cause enough to agitate the farmers who were the mainstay of the State economy. In order to reconsider the hike of revenue nearly three thousand farmers with their leaders proceeded to Sambalpur to meet the Political Agent. Even after two days of long wait the farmers could not get an appointment with the Political Agent. In order to nullify the farmers' movement, the Bamanda Raj administration adopted several means including spreading a rumour of likely forfeiture of their tenancy rights and even imprisonment. Out of fear and lack of strong leadership the agitating farmers returned home.

In 1930, due to scanty rain, Bamanda suffered drought and brought misery to the farming class. Despite low or no yield the farmers were forced to pay the land revenue and other levies. To add to their plight, the farmers who had harvested whatever they could were forced to sell the yield to the retailer within the state at a cheaper rate. At that time, price of rice outside Bamanda State was eight Sera per rupee whereas it was 32 Sera per rupee in Bamanda State. This was another cause of dissension and unrest among the people of Bamanda.

During the Second World War period, the Gountias were forced by the Raja to send people for the war. The Gountias encouraged the people to join the war, by giving them money, land and other attractive things. Those who succumbed to death at War, their families' livelihood were looked after by the Jamindars. The employees of the Raja collected "War donation" forcibly.

At the call of the National Congress, Dasarathi Mishra vehemently protested against the 'Yudha Panchamagana'. A case was instituted against him as per Indian Security Act. And Defence of India Rules. He was sentenced for two years rigorous imprisonments in addition to it Rs. 20/- (Rupees twenty) was fined. The fine amount was collected by way of confiscating his house for two times. The Congress activists were roaming from village to villages and educating the people not to give 'Yudha Panchamagna'. Those were not paying the 'Yudha Panchamagana were summoned either to the S.D.O. Court or to the Police Station, and were debarred of food. Their land, utensils and ornaments were sold forcibly and the 'Yudha Panchamagana' was collected.

During the drought in Bengal, in order to sell rice at a higher rate there, Rani Jyotimanjari purchased rice forcefully from the farmers at a cheaper price. At the group Panchayat nomination, the people were not properly represented. The Congress opposed these things vehemently. Dasarathi Mishra and others opposed openly and they had to face cases on fake allegations.

### **Praja Mandal Movement in Bamanda**

On 23<sup>rd</sup> June 1937, under the leadership of Dr. Pattavi Sitaramaya, a stalwart of the Indian National Congress, the Odisha State Conference was held at Cuttack, and people were encouraged to constitute Congress Committees in Gadjats. In that conference, the Gadjat Rajas were asked to abolish *Bethi* and *Begari* system in their States. A committee was constituted wherein Satish Chandra Bose, Balbantraoi Meheta and Braja Sundar Das were the members and Sarangadhar Das was the convenor. In July, 1937, under the leadership of the Congress, popular Government was constituted after Odisha became a separate province. In 1938, in Gadjat States *Praja Mandals*, the People's Forum were constituted and people's agitations were geared up for achieving social justice. As per the advice of that committee, Dayananda Satpathy remained as in-charge to constitute Praja Mandal in Bamanda State. Dayananda had been barred from entering Bamanda State, so he delegated the task to Dayanidhi Panigrahi and in 1937, Praja Mandal was constituted at Deogarh. Thereafter agitation was intensified. Two Congress activists of Angul, namely Jata Sahu and Dambarudhar Garnaik visited the border villages of Angul-Bamanda State like Karlaga, Tinkbir, Gambharipal, Talabahali, Medinipur, Kadopara, Adas and Sangaposi and inducted about 23 persons as Congress members. Realmal Police Station got that information and summoned Managobinda Das of Medinipur, Sahadeb Sahu of Talabahali, Bila Nayak of Tinkbir, Kartikeya Behera and Netrananda Behera of Karlaga and Kandarpa Behera of Budhupal villages to the Police Station and applied third degree method to deter them from further agitation. Despite police atrocity organisational activities of Praja Mandal workers under the banner of Congress Party continued unabated. Many workers of the movement were put to rigorous imprisonment for various terms with only perfunctory trial. Pabitra Mohan Pradhan, a distinguished leader of the Praja Mandal agitation visited Deogarh and inspired the people to join the agitation. One Soubhagya Mishra of the village Khajurikhaman took the leadership of that area. Several frontline workers of this agitation were forced to flee their villages for fear of persecution. Prominent among them were Dasarathi Mishra and Dibakar Mishra who fled away from the State stayed at Kasala Camp upto 1946. Another such person was Kasiram Gountia of Ramtileimal who came in

contact with Dayananda Satpathy and became the eyesore of the Bamanda Raja. Situation compelled him to leave his village and stayed at Jhirlapali village of Jharsuguda and worked for the Congress.

In 1942, amidst the Second World War, the Quit India Movement started to overthrow the British and the call for independence of India intensified. In Bamanda, leadership of the movement was taken up by Dasarathi Mishra. Gaurishankar Mohapatra and Ramachandra Nayak of Kuchinda for which they were sentenced to rigorous imprisonment.

In 1946, the Praja Mandal agitation at Bamanda became intense. In each village, one person took leadership and organized meetings. Many sensational news were appearing in the newspaper “*Gadajat Tara*” published from Cuttack informing the people of the dismal state of affairs in Gadjats. This added fodder to the anger and disenchantment of the people against the Raj Administration. In that year, Dayananda Satpathy organized a workers’ meeting of Western Odisha at Sambalpur. In that conference, Ratnakar Patel, Hrushikesh Patel and many more of Bamanda State actively participated. People would not get peace and comfort unless the Bamanda’s Rajatantra were abolished. That was the common resolution at that conference. In the same year, one Gadjat conference was held at Cuttack, under the leadership of Harekrishna Mahatab and many resolutions were adopted against the misrule of Rajas.

In Kuchinda, Gunanidhi Gountia, Hrushikesh Patel, Biswanath Kar, Gopal Panigrahi, Ratnakar Patel, Prafulla Patel, Dasarath Nayak, Dayanidhi Panigrahi,, Chandrasekhar Panigrahi, Bhanicharan Pal, Chudamani Nayak and Sarat Chandra Naik were leading the agitation. Similarly in Deogarh, Krushna Chandra Pradhan, Kandarpa Pradhan, Dibakar Mishra, Mahadeb Pradhan, Soubhagya Chandra Dwibedy, Gadadhar Pradhan, Biswanath Pradhan, Sudarsan Pradhan and Dambarudhar Garnaik worked to intensify the agitation. The “Praja Mandal andolan” was strengthened when the conservative ladies activists like Menaka Satpathy, Labangalata Kar and many more came out from the dark corner of home to fight for justice for the people with nationalistic fervour.

Such collective action by the people forced the rulers of the feudatory States of Odisha to take liberal stance about the wellbeing of their subjects as agreed to and on behalf of “The Chancellor of Princes”. Accordingly the Raja of Bamanda through a notification No,23/46 published in the “*Bamanda Gazette*” made the following declaration signed under the hand and seal of the Dewan B.K.Kar by order of the State.

*“Nobody would be deprived of their post. Nobody would be deprived of land and wealth. Illegal trespass would not be done. Everybody would*



*be allowed to restore before courts and High Court. In case of war, rebel or serious internal violence, it could be cancelled. Everybody would have to give their free opinion. All were allowed to constitute organization or group independently and could assemble peacefully without carrying any weapon in violation of law. Everybody would have the independent right to take any religion as per their conscience. All were equal before the law, irrespective of caste and religion. There would be no 'Bigadi' tradition. No taxes would be collected forcibly."*

Under the patronage and at the instance of Bamanda Raja, a printed leaflet bearing the names of 117 persons considered to be close to the Darbar was circulated against the purpose and cause of the 'Praja Mandal Andolan' describing it as redundant. Another leaflet was released on behalf of the Praja Mandal committee with the title, "the necessity of the Praja Mandal Andolan at Bamanda State". Bamanda Praja Mandal Committee was affiliated to "All India Gadjat Council", or "Lok-Parishad". This leaflet was well accepted by the masses and provided impetus to the agitation.

On January 19<sup>th</sup>, 1946 one grand meeting was organized at Kuchinda and protected against the Raj Sarkar. Within less than a fortnight another meeting was held on 1<sup>st</sup> February at Satkama village of the Bamanda Praja Mandal Committee. Some loyalist of Raja protested at the meeting. Dasarathi Mishra and Rama Chandra Nayak were arrested on false charges of disturbing peace and were sentenced to imprisonment.

Gouri Shankar Mohapatra and Gunanidhi Gountia were working for the Congress at Laida, Kinaloi, Guchhapali,, Jhinlapali and Malidihi villages of Sambalpur district. While Gouri Mohapatra was conducting meeting of Praja Mandal at Kudapada, he was arrested and imprisoned.

The veteran freedom fighter Dayanand Satpathy had undergone a total of nine years imprisonment for taking part in the freedom movement. Concurrently, in order to carry the message of Gram Swaraj of Gandhijee, committees were formed in the villages of Bamanda, under the title "Basudeb Seva Dal". The objectives of the committee "Basudeb Seva Dal" were to clean the village, to eradicate untouchability, to abolish the consumption of liquor and other constructive works. Balmukunda Naik of Kuchinda, Dasarathi Naik of Sahasbahal, Dhruvacharan Mohanty of Kuchinda and Laxman Pujari of Kulundi were active workers in these tasks.

In August 1942, the Indian freedom movement took a new dimension with the launching of the "Quit India Movement". At the historical conference of Congress at Bombay a resolution was adopted for achieving independence. Soon-after the meeting Gandhiji and many frontline leaders were taken into custody. In Bamanda leaders like Dasarathi Mishra,

Ramachandra Nayak and Gaurishankar Mohapatra along with others were arrested and kept under confinement till 1945.

At that time, in September 1945, Sarangadhar Das popularly known 'Gadhat Gandhi' in Odisha had visited Bamanda and meetings were organized at Govindpur and other places. At a meeting held at Kuchinda, Bijay Kumar Mishra was entrusted to organise and lead the agitation in Bamanda, Bonai and Kendujhargarh.

On 11<sup>th</sup> November 1946, an ad hoc Praja Mandal committee of Bamanda was constituted at the village Ramtileimal with Rajiv Lochan Patel, Ratnakar Patel and Hrusikesh Patel as members of the executive committee with its office not at Deogarh but at Govindpur. On 14<sup>th</sup> January 1947, one permanent Praja Mandal committee was formed with Dasarathi Mishra as the President. Other members were Rajib Lochan Patel, Ratnakar Patel, Hrusikesh Patel, Ramchandra Nayak, Radhanath Sharma and Uday Chandra Choudhury.

The Cabinet Mission constituted by the British government to examine the issues of self-rule had opined that in order to pacify the agitating Praja Mandal leaders and farmer and in order to bring the surcharged situation under control Gadhat should be merged with the Province of Odisha. Harekrishna Mahatab sent that proposal to the Gadhat Rajas first on 10<sup>th</sup> May 1946 and again on 29<sup>th</sup> of June. All the Rajas rejected the proposal, most vociferous among them being the Rajas of Bamanda and Kalahandi.

After long and protracted agitation and great sacrifice of many freedom fighters the struggle for freedom culminated with India becoming independent on 15 August 1947 despite the trauma of partition. With this all the feudatory States too became independent with the nullification of the *sanads* they had received from the British Crown or treaties and agreements they had signed with the British India government.

However the Praja Mandal movement remained unabated in the Gadhat of Odisha including Bamanda. On 10<sup>th</sup> October 1947, a group of activists led by Gunanidhi Gountia were sent to Deogarh Sub-Division to intensify the agitation which had acquired a slow gait. Praja Mandal activists Ramaniranjan Patel, Dasarathi Patel, Chala Chaudhury, Bharat Chandra Choudhury, Brundaban Patel, Madan Patel and Purna Chandra Bagh were among the activists in that group. Gunanidhi Gountia went to the capital town Deogarh to assess the political situation whereas others stayed back at Tainsar village, 8 km from Deogarh. The village Choukidar informed about their camping the capital. One Panchanan Behera, a Police Sub-Inspector came to Tainsar with a small contingent of forces along with a group of local ruffians at midnight and enticed them with the false plea that Gunanidhi

Gountia was at the Palace with the Raja and they were invited to the Palace for discussion. In good faith they boarded the police vehicle along with the Police Sub-Inspector and instead of going to Deogarh, they were towards Sambalpur and off-loaded at Tileibani. The ruffians with the explicit consent of the police roughed them up causing severe injury to some. Next morning, that news spread over the state in lightening speed. Gunanidhi Gountia was detained at Deogarh. Praja Mandal activists were rescued with injuries. Dayananda Satpathy informed this atrocious act of police brutality to the Odisha state and Central Government.

The students of Rajakumar High School, Deogarh observed the situation of Praja Mandal Andolan and after closure of the school, assembled at Suliapada, a ground in Deogarh town secretly and decided to constitute one Working Committee with Ramaniranjan Nayak and Balakrushna Kar as President and Secretary of the committee respectively and Bhagaban Sahu. Basanta Kumar Sahu, Basudeb Singh Mohapatra, Jagadish Naik, Banumadhab Panda, Hemanta Kumar Gountia, Nandakishore Pradhan, Samanath Pradhan, Keshab Chandra Bhukta and Hrudayanath Sahu were active members. Daily in the evening processions were organized by the students shouting slogans against the Raj and hailing democracy. This upsurge had sent the signal to the Darbar of the impending merger of the Gadjats post independence as fait accompli and no serious view was taken of the students' agitation.

When all categories of people joined the Praja Mandal movement, the women of Kuchinda could not be left far behind and just be confined to their home and hearth. They formed groups, conducted meetings, took out processions and opposed the feudal system seeking its abolition in Bamanda. The women wing of agitation was spearheaded by Labangalata, the sister of Dayananda Satpathy. Women participation in the agitation was a disturbing signal for the Raj administration.

On 10<sup>th</sup> December 1947, at the aerodrome field of Basalai village of Deogarh a large Praja Mandal conference was organized. At that meeting, Durgamadhab Sharma, employee of the Bamanda State and Magistrate and Dr. Maheswar Pradhan joined the conference wearing Gandhi Topi, an iconic symbol of freedom and democracy. The personal lavish life style of Raja Bhanugang and the torture of people were discussed vividly.

On the other hand, the Gadjat Rajas of Odisha and Chhatisgarh assembled at Rajkumar College, Raipur and constituted the "Eastern States Union" with its headquarters Raigarh. They also prepared its constitution. There was provision that, one would be nominated as Prime-Minister but there would be no Legislative Assembly. On the other part. Sarangadhar Das and Pabitraramohan Pradhan declared independence from the Raj

coinciding with the Independence India on 15<sup>th</sup> August 1947 at Dhenkanal and constituted a people's representative government. Similarly, one of the smaller State, Nilagiri (now in Balasore district) declared itself as independent and formed a government of its own. The tribal people of Nilagiri looted the wealth of non-tribal people. The State Government could not take any action and remained as silent spectators. Harekrushna Mahatab had requested the Central Government to intervene in the matter, observing the situation at Nilagiri. The Central Government directed the District Collector, Balasore to take over the administration of Nilagiri State. The Raja of Nilagiri voluntarily expressed his inability to rule the State and handed over its administration to the Government of Odisha. After the merger of Nilagiri State with Odisha the path was cleared for merger of other Gadjat states with Odisha.

Most of the rebels and Praja Mandal activists were from *Chasa* caste, a fairly well-to-do farming community. They were conservative, prestige conscious, united and fighters against injustice. So, they were called "*Melia Chasa*", who ganged up against the authorities on some common cause of the community. The administration of the Raj had an eye over the 'Chasa' area, though not out of fear, to pre-empt their collective protests and agitational action.

### **Gadjat Merger**

Soon after Independence of India, the then Union Minister, Home, Iron Man, Sardar Vallabhai Patel and Home Secretary to Government of India Mr. V.P. Menon visited Cuttack on 13<sup>th</sup> December 1947. They convened a meeting of the Gadjat Rajas and convinced them to hand over their states to the Government of Odisha. Sardar Patel assured them that the Central Government would safe guard the interest of the Ruling Chiefs in respect of their personal wealth and property. Apart from that, the Rajas would be granted privy purse proportionate to the revenue and other income they derived from their territory as a compensation for relinquishing their states. The Rajas appreciated the proposal of Sardar Patel instead of being dethroned by the people by agitational means. On 14<sup>th</sup> December 1947, the Rajas of 'B' and 'C' category states were called upon. The Rajas of 'A' category States joined in a special meeting in the afternoon the same day. Sardar Patel addressed the meeting and told them in no uncertain terms, "Odisha States were like ulcers in the body of the province and that they must be cured or eliminated. If they listen to his advice, they could be cured otherwise they might find themselves uprooted by the people".

In the same evening, twelve Rajas of 'B' and 'C' category states, put their signatures on the dotted lines of the 'merger deed'. The Rajas of 'A' category states were allowed to some limited time up to 10 at night to ponder

over the matter, that being the final deadline. Except the Raja of Dhenkanal, none agreed to the proposal. Next morning, the Union Home Secretary V.P.Menon sternly told the Rajas that if they failed to maintain law and order in their states in the face of simmering unrest against the feudal system, perforce provincial and if need be central forces would be deployed to tackle the situation which would be adverse to their interest. Most of the remaining Gadjat Rajas sensed the stern message and signed the Charter of Merger. Raja Bhanugang Tribhuban Deb of Bamanda did not sign and returned back to Deogarh. On 18<sup>th</sup> December, Raja Bhanugang Tribhuban Deb informed the Government about handing over of his power by wireless, observing the inflammable political situation and unrest in the State. The Government of Odisha appointed an “Administrator” to each Gadjat state to take over the charge from the Rajas. Krushna Chandra Das was appointed as the Administrator for Bamanda. The Government of Odisha directed the Rajas to hand over the charges to the Administrator by noon of 31<sup>st</sup> December 1947. All the Rajas handed over their charges to Administrator except save the Raja of Mayurbhanj. On 1<sup>st</sup> January 1948, the merger of princely states with Government of Odisha was almost achieved.

A list of prominent freedom fighters of Ex-Bamanda State and Deogarh district is appended at the end of this Chapter.

### **Post Independence and Post Merger Scenario**

After the merger of Bamanda with Odisha, because of alleged instigation of the Raja and the members of the Royal family, the agitation by the adivasis arose in Bamanda. The demand of the adivais, mostly Kandhas and Bhuyans was that their ancestors Suna Kandha and Kantaru Bhuyan had brought Raj Kumar of Patnagarh and the Raj family was installed by them. Without taking their opinion and consent how could the dynastic rule of the Gangas of Bamanda be abolished? On the rainy day of 26<sup>th</sup> July of 1948, under an overcast sky the adivasis, mostly male members of the community, assembled near the residence of the Administrator equipped with their traditional weapons. They were dancing with the beat of traditional drums and giving war cry and slogans in favour of Bamanda Raja demanding that the Government of Odisha should return their kingdom to them and reinstate the Ruler. They went on a procession and tried to occupy the residence of the Administrator. About five to six thousand people which were not a small number assembled. They were invited to the Basanta Nivas guest house and were told to meet the District Collector, Sambalpur, so that their demands could be considered. The procession moved towards Basanta Nivas . On the way, the people became violent and law and order broke down. The government was well prepared with armed forces apprehending the law and order situation. To quell the growing and violent mob, force was applied and in the firing some casualties were reported.. The then Executive

Magistrate Bipin Bihari Mohapatra was deployed to record dying statement of the seriously injured as per Section-32 of Witness Act. Numbers of death was uncertain. The adivasi people who dispersed and while retreating due to police firing damaged and dismantled the Jareikela wooden bridge on the road connecting Deogarh to Sambalpur and Kuchinda. The leaders of this short-lived protest and procession were arrested.

A consequence of the merger was the alleged liquidation of the Bamanda State treasury by the King. This has been recorded in the memoir of Bipin Bihari Mahapatra who was an Executive Magistrate handling the State treasury when he describes how he disbursed money on order from the King to persons indicated by the King. The exercise was carried out between 18<sup>th</sup> December and the midnight of 31<sup>st</sup> December 1947 in biting cold. By the morning of 1<sup>st</sup> January 1948, when Bamanda State existed no more and Deogarh had become a sub-division of Sambalpur district, the State treasury was left with no more than one lakh rupees in balance.

### **Birth of first Regional Political Party**

Deogarh gave birth to the first regional political party in Odisha. As described earlier, when bloodshed occurred due to the violence of the adivasi people in 1948, the Maharaja of Patna (Balangir), Rajendra Narayan Singhdeo visited Deogarh to give solace to the people. Many Gadjat Rajas also visited Deogarh during that time and saw the spot where agitating adivasis fell to police firing. After that, a convention of the Gadjat Rajas was convened at Balangir Palace. They took oath touching the blood-soaked soil collected from Deogarh, that under no circumstances, they would join their hand with the Congress party, rather they would form a new regional political party. The name of the party was "Ganatantra Parishad". Under the umbrella of Ganatantra Parishad, the ex-Gadjat Rajas and their followers were united and took part in electoral politics. Subsequently, that regional party "Ganatantra Parishad" was merged in 1962 with the "Swatantra Party". This party was floated by some rightwing ideologues under the leadership of Chakraverty Rajgopalachari, a Gandhian leader and freedom fighter who had fallen out with Jawaharlal Nehru on account of the latter's socialistic views and alleged mishandling of certain internal matters like the accession of Kashmir to India.

### **Creation of Deogarh District**

At the time of Independence of India there were seven districts in Odisha. The then Government of Odisha, decided to constitute new district from out of the Category 'A' ex-Gadajat states. Accordingly, the revenue department put up the file before the then Chief Minister of Odisha Dr. Harekrushna Mahatab, suggesting the name of seven 'A' ex-Gadajat states namely Mayurbhanj, Kendujhar, Gangpur (Sundargarh), Patna (Balangir),

Kalahandi and Bamanda. Excluding Bamanda State, other six ex-Gadjar States became new revenue districts from 1<sup>st</sup> January, 1949. As the stories go, the Congress leadership of that time was not well disposed towards Bamanda, allegedly because Malati Choudhary a veteran Congress leader and wife of Nabkrushna Choudhary did not receive proper conduct from the Darbar and the people of Deogarh on certain occasions during the pre-independence days and Praja Mandal agitations. Nabakrishna Choudhury, who was to become a popular Chief Minister of Odisha later, influenced the Mahatab Government to drop Bamanda from the consideration of becoming a district even if it as a Category 'A' feudatory state during the British rule.

Smt. Nandini Satpathy as the Chief Minister of Odisha had constituted a District Re-organisation Committee in 1973 in order to create new districts in Odisha for administrative efficiency and people's convenience. The District Re-organisation Committee was a four member body, headed by Justice Rajkishore Das and was popularly known as "Justice Das Committee". In 1975, Justice Das Committee recommended creation of four new districts in Odisha, Deogarh being one of them. In the proposed 'new Deogarh district' Kuchinda, Bonai, Pallahara and Deogarh revenue Sub-Divisions were to be included. On the request of Odisha Government, even the Government of India in consultation with and recommendation of the 4<sup>th</sup> Finance Commission, made financial provisions for the formation of new districts. That too did not materialise during the Chief Ministership of Janaki Ballav Pattnaik.

However, in 1989, there was another move to create a few more districts but that too was aborted purportedly due to conflicting political views and sub-regional aspirations in some areas. Ultimately, in 1990, the Janata Dal led by Biju Pattnaik came to power. Biju Pattnaik's Government shelved all the past proposals of creation of new districts and started the process afresh. In the month of October, 1992, the Cabinet of Biju Pattnaik's Government had approved of the creation of Bamanda district, comprising Deogarh and Kuchinda revenue sub-divisions of Sambalpur district. Initially, Kuchinda Sub-Division disagreed to be placed in Deogarh district, due to various reasons and reservations. But, after skilful negotiations, leaders of Kuchinda had agreed. Basing on their consent, the Government of Odisha had taken the decision to create Bamanda district. Subsequently, people of Kuchinda veered on the earlier stand and declined to be a part of Deogarh district. Despite several hindrances and long delay since independence, it was Biju Pattnaik as the Chief Minister who ordered formation of Deogarh as a new revenue district. Deogarh district became a reality from 1<sup>st</sup> of January 1994.

## Archaeology of the District

Archaeology defines the antiquity and history of the land and its people. The most primitive and ancient of the archaeological finds are the *Akshyarasila* rock inscription and the cave paintings which have been narrated at the beginning of this Chapter.

Among other historical monuments in the district of Deogarh are the temples built by the Ganga rulers. They were not only devoted to Hindu gods and goddesses but also accepted the local deities for whom many temples were built in different parts of the district. The Ganga monuments, no doubt got impetus from the Odishan architectural style. The Odishan temple architecture with reasons of its long history of evolution has been classified as a type by itself. It is generally known as the 'Kalinga Style' of architecture.

The earliest Surviving Shiva monuments of the Gangas are the temple of Jhadeswar Baba on the southern side of Deogarh town, 5 K.M on N.H 200. It was built in 1854 C.E. by Debadrulabha Deb 4<sup>th</sup> son of Balunka Bhursab Deb. The image of Shiva linga is of white stone having the cracked head. There many more Shiva temples in this district. The important ones are the Gokarneswar temple of Sasan Sahi, Deogarh, built by Raja Braja Sundar Sudhal Deb on 1835 C.E. and the temple was reconstructed by Raja Sir Basaudeb Sudhal Deb in 1900 C.E. Here the image of Shiva linga is of black chlorite stone having the head of as an ear of a cow. The Champakeswar temple was also built by Raja Braja Sundar Deb. It is situated near the Pradhanpat waterfall. The image of Champakeswar Shiva linga is black Granide stone having round shaped head. Another Shiva temple named Narmadeswara at Kalkat, 10 K.M on N.H 49 east to Deogarh town was built by Lal Rajkisore Deb, grandson of Raja Sir Basudeb Sudhal Deb on 19.11.1965.

There are a number of shrines of lord Jagannath in this district. The most important of them all is the Purunagarh Jagannath temple built by Raja Pratapa Rudra Deb. Another one was the Naikul Jagannath temple which was submerged in Rengali Dam Project and a newly of recent construction has replaced it and is at Paiknagar near Rengalbeda. The Purunagarh Jagannath temple consists of a *Viman*, *Natamandapa*, *Garuda Stamba*, in front of a large *Bhogamandapa*. Another prominent temple at Deogarh and only one of its kinds in the Ganga territory is the Gopinath temple at Sasan Sahi, Deogarh. It was built by Rani Kumari Debi wife of Raja Braja Sundar Deb under the supervision of Lal Nandakisore Deb, 5<sup>th</sup> son of Balunka Bhursava Deb. This temple was rebuilt and decorated by Raja Sir Basudeb Sudhal Deb in 1900 C.E. Raja Braja Sundar Deb also built Girigobardhana temple near Pradhanpat waterfall. Ramagobinda temple of Balam, 15 kms



on N.H 49 east of Deogarh was built by Raja Sir Basudeb Sudhal Deb. Another temple built in 1900 C.E by Sir Basudeb Sudhal Deb is named Gopaljee temple is in the capital town Deogarh. The icons of the deity Rama, Laxman and Sita were brought from Ajodhya.

Apart from these temples, there are many Debi temples in the district i.e. Rambhadebi of Basudevpur and Rambhadebi of Barkote. These Debis were worshiped by Jeet Rajabansa previously then Sarani part Debi of Naikul (now it is at Bijaynagar of Barkote Block) is worshiped since Braja Sundar Dev's reign. Pradhanpateswari temple is situated near Pradhanpat waterfall and the Debi is worshiped as the village goddess of Deogarh town. There are considerable additions to the number of temples of gods and 45aοists45m in the last few decades like Gayatri temples, Hanuman temple, Shani Temple, Radhakrishna temple, etc. Heritage and architecture have been dealt with in more detail in the Chapter on Culture.

## Appendix

### Prominent freedom fighters of erstwhile Bamanda State

1. Dayananda Satpathy
2. Bila Nayak, Tinkbir
3. Kartikiya Behera
4. Netrananda Sahara
5. Gopala Pradhan
6. Baishnaba Charan Nayak
7. Sahadeb Sahu, Talabahali
8. Krushna Chandra Pradhan
9. Bidyadhar Sahu
10. Balabhadra Sahu
11. Kandarpa Pradhan
12. Sridhar Behera
13. Dibakar Mishra
14. Brajabandhu Behera
15. DasarathiNlohapatra
16. Mahadeb Pradhan
17. Managobinda Pradhan
18. Bhubaneswar Pradhan
19. Baishnaba Behera
20. Kundan Behera
21. Bhagaban Pradhan
22. Brajamohan Pradhan
23. Dharmudhar Bhukta
24. Soubhagya Chandra Dwibedy
25. Gadadhar Pradhan
26. Biswanath Pradhan
27. Gadadhar Sahu
28. Jogeswar Mishra
29. Kanhu Charan Nanda
30. Balabhadra Pradhan
31. Gopal Chandra Panigrahi
32. Chandra Sekhar Panigrahi
33. Rajib Lochan Patel
34. Dasaratha Nayak
35. Arkhita Patel
36. Dibakar Behera
37. Sudarshan Pradhan
38. Dambaru Garnayak

## CHAPTER –III

# ECOLOGY, ENVIRONMENT AND FOREST

### Introduction:

Deogarh district is famed for its rich biodiversity. Total Forest area of the district is 1560.62 square kilometres and the total forest cover is 56 percent of the total land area making Deogarh the third greenest district of the state next only to Kandhamal with 68.18 percent and Gajapati with 57.5 percent of geographical area under forest. Odisha's forest cover in 2011 was 48,903 square kilometres, which accounts for only 31.41 percent total area in the state. Though, forest density has decreased in the recent past at both state and national level, the condition and expanse of forest in Deogarh is encouraging.





metres in height bearing a single well-defined stem are distributed sporadically all over the forest.

Bhuyans, Kondhas and other tribal communities being the original inhabitants, of Deogarh were the occupants and users of the forest of this tract since time immemorial. They were never in conflict with nature and tended the forests as their natural assets. Prior to the advent of rail communication, the harvested logs were usually floated in the River Brahmani downstream to Jenapur of Cuttack District. With the construction and expansion of the Bengal Nagpur Railway in Eastern India, 'Rajkumar Sleeper Business' was started in 1890 to provide robust wooden sleepers to lay railway tracks but it closed in 1924. Demarcation work of different forest blocks started in the year 1907 after the appointment of a Forest Ranger trained in Dehradun Forestry Institute in the year 1906. Agency Forest Officer was the adviser of forest administration from 1920 to 1934. The Forest Rules of the State was published in the Bamanda State Gazette in 1924. The first decennial Working Plan for the period from 1933 to 1943 was prepared by Sri G.N. Mathur, who was State Forest Officer from 11.06.1928 to 12.02.1937 of Bamanda State for methodical management of forest. This practice continued subsequently and plans for 20 and 10 years were prepared.

As per the present estimate, the forest cover of Deogarh district is more than 50 percent of total geographical area. The major Reserve Forests of this district cover an area of 71818.869 ha. The scenic Pradhanpat waterfall, the lifeline of Deogarh town originates from Kaidanta of Pradhanpat Reserve Forest.

### **Forest Administration:**

Deogarh Forest Division comprises the whole of Deogarh District and Pallahara Sub-division of Angul District headed by the Divisional Forest Officer with headquarters at Deogarh. The following administrative units are in operation for better forest management.

#### **Different administrative units of Deogarh Forest Division**

<b>Sl. No.</b>	<b>Name of administrative unit</b>	<b>Number</b>
1	Range (Deogarh, Rimal, and Barkote)	3
2	Section	14
3	Beat	65
4	Forest Check gates	3

The Odisha Forest Development Corporation (OFDC) is responsible for commercial transaction of major forest produce. The following table gives

year-wise revenue earned from forest resources in the Deogarh Division from 2005 to December, 2015.

**Forest Revenue during the last decade**

<b>Year</b>	<b>Amount (in rupee)</b>
2005-06	2497044
2006-07	4679014
2007-08	6321250
2008-09	2532047
2009-10	11447007
2010-11	11512958
2011-12	17472451
2012-13	10054002
2013-14	9758829
2014-15	6565890
2015 Up to Dec 2015	15538702

**Classification of Forest:**

The major classification of Deogarh forest is presented in Table below.

**Major forest types**

<b>Name of Major Group – Tropical Forest</b>				
<b>Name of Group</b>	<b>Name of Sub-group</b>	<b>Name of Type</b>	<b>Name of Sub-type</b>	<b>Name of Varieties</b>
Tropical moist deciduous Forest	North Indian tropical moist deciduous Forest	Moist sal-bearing forest	Moist peninsular sal	Moist peninsular high level sal Moist peninsular low level sal Moist peninsular valley sal
		Dry sal-bearing forest	Dry peninsular sal	
Dry deciduous forest	Northern tropical dry deciduous forest	Northern dry mixed deciduous forest		
		Dry bamboo brakes		

**Floral diversity:**

The floristic composition of the district has been detailed in the following Table

## Floristic composition

Name of Forest Block	Top story	Middle story	Under growth	Climber and Grass
Pravasuni, Khajuria Badataila, Kansar, Rambhadebi, Pradhanpat, Gogua, Panguli, Mandasila, Thianal, Pauri, Jhadeswar, Kaunsibahal, Banbira, Naikul, Hadamunda, Chilantikhol, Kandarpa-Lamdura	Sal, Asan, Bahada, Bija, Kasi, Haldu, Dhaura, Senha, Mundi, Dhuben, Semal, Teak, Gambhari	Kumbhi, Salia, Jamu, Rai, Kendu, Sisoo, Karada, Kamalagundi, Ainla, Bamboo	Petmuri, Mohana, Girdi, Ranikathi	Latapalas, Atundi, Siali, Duba, Mardalai, Muturi, Sincula

## Botanical, Vernacular and Local names of plants found in Deogarh Forest Division

Sl. No	Botanical name	Trees	
		Vernacular name	Local name
1.	<i>Aegle marmelos</i>	Bel	Bela
2.	<i>Albizia odoratissima</i>	Sirish	Kala sirisa, Tentela
3.	<i>Alstonia scolaris</i>	Chhatiana	Chhachina
4.	<i>Anogeissus latifolia</i>	Dhaura	Dhaura
5.	<i>Azadirachta indica</i>	Neem	Nimba
6.	<i>Bauhinia malabarica</i>	Koteli	Amthi
7.	<i>Bauhinia purpurea</i>	Barada	Barada Sag
8.	<i>Bombax ceiba</i>	Simili	Semel
9.	<i>Bridelia retusa</i>	Kasi	Kasi
10.	<i>Buchanania lanzan</i>	Chara	Char
11.	<i>Butea monosperma</i>	Palash	Palasa
12.	<i>Canthium dicoccum</i>	Kumar Chikni	Kumbhar Chikini
13.	<i>Carea arborea</i>	Kumbhi	Kumbhi
14.	<i>Casearia tomentosa</i>	Kokra	Khakada
15.	<i>Cassia fistula</i>	Sunari	Sunari
16.	<i>Cassine glauca</i>	Chauli	Chauli
17.	<i>Cleistanthus collinus</i>	Karada	Karda
18.	<i>Chloroxylon Swietenia</i>	Bheru	Bherua
19.	<i>Dalbergia latifolia</i>	Sisua	Pahadi Sisu
20.	<i>Dalbergia paniculata</i>	Dhobbi	Dhoboni
21.	<i>Dalbergia sissoo</i>	Sisoo	Sisu
22.	<i>Desmodium oojainensis</i>	Bandhano	Bandhana

23.	<i>Dillenia pentagyna</i>	Rai	Rai
24.	<i>Diospyros malabarica</i>	Thusra Kendu	Makra Kendu
25.	<i>Diospyros melanoxylon</i>	Kendu	Kendu
26.	<i>Diospyros montana</i>	Halda	Halda
27.	<i>Erythrina variegata</i>	Paladhua	Paladhua
28.	<i>Ficus hispida</i>	Panidimiri	Panidumer
29.	<i>Ficus racemose</i>	Dimiri	Dumer
30.	<i>Garcinia cawa</i>	Raj Kusuma	Raj kusum
31.	<i>Gardenia gummifera</i>	Gurudu	Ghurudu
32.	<i>Gardenia latifolia</i>	Damkurudu	Damba Ghurudu
33.	<i>Gmelina arborea</i>	Gambhari	Gamer
34.	<i>Grewia elastic</i>	Mirgi Chara	Barenga
35.	<i>Haldina cordifolia</i>	Kurum	Kurum
36.	<i>Hymenodictyon orixens</i>	Kansa Bhurkunda	Kansa
37.	<i>Kydia kalycina</i>	Bana-Kapasias	Banakapa
38.	<i>Lagerstroemia parviflora</i>	Sidha	Sidha
39.	<i>Lagerstroemia reginae</i>	Patoli	Patuli
40.	<i>Lannea coromandelica</i>	Moi	Mai
41.	<i>Madhuca longifolia</i>	Mahula	Mohul
42.	<i>Mangifera indica</i>	Amba	Aam
43.	<i>Mitragyna parviflora</i>	Mundi	Mundi
44.	<i>Morinda pubescens</i>	Anchi	Achu
45.	<i>Oroxylum indicum</i>	Phemphana	Phanphana
46.	<i>Phoenix Sylvestris</i>	Khajuri	Khejura
47.	<i>Phyllanthus emblica</i>	Aonla	Anla
48.	<i>Polyalthia cerasoides</i>	Potmossu	Patmasu
49.	<i>Pongamia pinnata</i>	Karanja	Karanja
50.	<i>Pterocarpus marsupium</i>	Piasal	Bija
51.	<i>Schleichera oleosa</i>	Kusum	Kusum
52.	<i>Semecarpus anacardium</i>	Bhalia	Bhalia
53.	<i>Shorea robusta</i>	Sal	Sargi
54.	<i>Soymida febrifuga</i>	Rohini	Rohini
55.	<i>Sterculia urens</i>	Gindola	Giridhini, Genduli
56.	<i>Srychnos potatorum</i>	Katako	Kataka
57.	<i>Syzigium cumini</i>	Jambo	Jamukoli
58.	<i>Tectona grandis</i>	Shaguan	Saguan
59.	<i>Terminalia arjuna</i>	Arjun	Arjuna
60.	<i>Terminalia bellerica</i>	Bahada	Beheda



61.	<i>Terminalia chubula</i>	Harida	Harda
62.	<i>Terminalia alata</i>	Asana	Sahaj, Asana
63.	<i>Xylia xylocarpa</i>	Kat Sialhi	Katha Siari
64.	<i>Ziziphus xylopyrus</i>	Ghanto	Ghuntuli

## Shrubs

Sl. No.	Botanical Name	Vernacular Name	Local Name
1	<i>Antidesma acidum</i>	Jamarla	Mamuri
2	<i>Bambusa arundinacea</i>	Kanta Banso	Kanta Baunsa
3	<i>Benkara Malabarica</i>	Phiriki	Thelco
4	<i>Cartunaregam spinosa</i>	Kalai Kanta	Kalei Kanta
5	<i>Chromolaena odorata</i>	Pokasunga	Poksunga
6	<i>Clerodendrum serratum</i>	Samarkand	Bana Malli
7	<i>Clerodendrum viscosum</i>	Kunti	Kumutia
8	<i>Cryptolepis buchanani</i>	Gopkanu	Dudhalai / Gopakanhu
9	<i>Dendrocalamus strictus</i>	Salia banso	Salia Baunsa
10	<i>Flacourtia indica</i>	Baincho	Kanteikoli / Baincha
11	<i>Flemingia Chappar</i>	Rani Kathi	Rani Kathi
12	<i>Grewia hirsute</i>	Suna-ragoda	Suna regada
13	<i>Helicteres isora</i>	Muri-muri	Mudimudica
14	<i>Holarrhena pubescens</i>	Kurchi	Kurei
15	<i>Indigofera cassioides</i>	Giliri	Giliri
16	<i>Ixora pavetta</i>	Tel Kurma	Tel kuruma /Buin Kuruma
17	<i>Lantana camara</i>	Naga-airi	Putush
18	<i>Mimosa himalayana</i>	Kirkichi	Kirkinchi Kanta
19	<i>Nyctanthes arbortristis</i>	Gutikhadika	Gangasiuli
20	<i>Olax scandens</i>	Bhadalia	Bhadali
21	<i>Pandanus fascicularis</i>	Kia	Kia
22	<i>Phoenix acaulis</i>	Ban-khajuri	Bana Khajuri
23	<i>Vitex leucoxydon</i>	Chadeigudi	Chadeigudi
24	<i>Wendlandia tinctoria</i>	Tilai	Tilau

## Herbs

Sl No	Botanical Name	Vernacular Name	Local Name
1.	<i>Achyranthes aspera</i>	Apamaranga	Apamaranga
2.	<i>Andrographis paniculata</i>	Chireita	Bhuin-nimba
3.	<i>Colocasia fallax</i>	Banasaru	Banasaru
4.	<i>Curcuma aromatica</i>	Bana haladi	Bana haladi
5.	<i>Desmodium gangeticum</i>	Saloporni	Salaparni
6.	<i>Hyptis suaveolens</i>	Bantulsi	Banatulsi
7.	<i>Imperata cylindrica</i>	Chhana Ghas	Badhuni
8.	<i>Laportea interrupta</i>	Godabichuti	Bichhuati
9.	<i>Thysanolaena maxima</i>	PhulJharu Ghas	Phul Jhadu

## Climbers, Epiphytes and Parasites

Sl. No.	Botanical Name	Vernacular Name	Local Name
1.	<i>Abrus precatorius</i>	Kaincha	Gunja
2.	<i>Asparagus racemosus</i>	Satamuli	Satabari
3.	<i>Atylosia scarabaeoides</i>	Ban-kulthia	Banakolatha
4.	<i>Bauhinia vahili</i>	Siali	Siali
5.	<i>Butea superba</i>	Noi palasa	Laha palasa
6.	<i>Celastrus paniculata</i>	Pengu	Pingu
7.	<i>Cissus repanda</i>	Takwall	Takualaha
8.	<i>Combretum roxburghii</i>	Atundi	Atundi
9.	<i>Hemidesmus indicus</i>	Thapa	Anantamula
10.	<i>Hibiscus aculeatus</i>	Piri-prirka	Pirpincha
11.	<i>Ichnocarpus frutescens</i>	Swanati	Sualai
12.	<i>Dendrophthoe falcata</i>	Madang	Malang
13.	<i>Milletia extensa</i>	Marda	Marada
14.	<i>Mucuna puriens</i>	Baidonka	Baidanka
15.	<i>Smilax macrophylla</i>	Muter	Kanta-muturi
16.	<i>Smilax zeylanica</i>	Muturi	Muturi
17.	<i>Vanda tessellate</i>	Rasna	Rasna
18.	<i>Ventilago madraspatna</i>	Rakta Khai	Rakta Pichhuli

### Medicinal Flora

The following medicinal plants used in indigenous traditional medicinal preparations by the local herbalists and traditional healers are found in forests of Deogarh:

#### ***Botanical Name along with Local /vernacular name***

*Abrus precatorius*, - Kaincha  
*Achyranthes aspera*- Apamaranga,  
*Aegle marmelos*, - Bela  
*Alstonia scholaris*, - Chhatian  
*Andrographis paniculata*, - Chireita  
*Anogeissus latifolia*, - Dhura  
*Asparagus racemosus*- Satabari,  
*Azadirachta indica*, - Neem

*Bambusa arundinacea*, -Bamboo  
*Buchanania lanzan*, - Chara  
*Butea monosperma*, -Palasa  
*Carea arborea*, - Kumbhi  
*Cartunaregam spinosa*, - Kaleikanta  
*Cassia fistula*, - Sunari  
*Celastrus paniculata*, - Pingu  
*Dalbergia sissoo*, - Sissu  
*Desmodium gangeticum*, - Salaparni  
*Diospyros malabarica*, - Makada Kendu  
*Erythrina 55aoists55m*, - Paladhua  
*Ficus racemosa*, - Dimiri  
*Ficus hispida*, - Pani Dimiri  
*Flacourtia indica*, - Kanteikoli  
*Gardenia gummifera*, - Gurudu  
*Gmelina arborea*, - Gambhari  
*Haldina cordifolia*, -Kuruma  
*Hemidesmus indicus*, - Annantamula  
*Holarrhena pubescens*, - Kurei  
*Hyptis suaveolens*, - Bana Tulasi  
*Ichnocarpus frutescens*, - Suanati  
*Lannea coromandelica*, - Mai  
*Madhuca indica*, - Mahula  
*Mangifera indica*, - Amba  
*Morinda pubescens*, - Anchhu  
*Mucuna puriens*, - Baidunka  
*Nyctanthes arbortristis*, - Gangaseuli  
*Pandanus fascicularis*, - Kia  
*Pongamia pinnata*- Punanga  
*Pterocarpus marsupium*, - Pia Sala  
*Phyllanthus emblica*, - Amla  
*Schleichera oleosa*, - Kusuma  
*Shorea robusta*, - Sal  
*Strychnos potatorum*, - Kataka  
*Syzygium cumini*, - Jammu  
*Tectona grandis*, - Saguan  
*Terminalia arjuna*, - Arjuna  
*Terminalia bellerica*, - Bahada  
*Terminalia tomentosa* – Asana  
*Woodfordiafruticosa*-Dhati

**Photographs of some common medicinal plants found in  
Debagad forest range**



**Achyranthes aspera (Prickly Chaff Flower)**



**Aegle marmelos (wood apple)**



**Alstonia scholaris (Devil's Tree)**



**Andrographis paniculata (Crepat Root Plant)**



**Asparagus racemosus (Asparagus Plant)**



**Azadirachta indica (Margosa Tree)**



**Curcuma 57aoists57 (Yellow Zedoary)**



**Desmodium gangeticum (Sarivan Plant)**



**Phyllanthus emblica (Emblic Myrobalan tree)**



**Hemidesmus indicus (Anantmool)**



**Holarrhena 57aoists57mi (conessi Bark plant)**



**Hyptis suaveolens (American Mint)**



**Strychnos potatorum (Clearing Nut Tree)**



**Syzygium cumini (Black Berry Tree)**



**Terminalia arjuna (Arjuna Tree)**



**Celastrus paniculatus (Pengu)**

## **Faunal Diversity**

### **Mammals**

#### **Elephant (*Elephas maximus*)**

Being the largest mammal found on the surface of the Earth atop the biological pyramid elephant has of late attracted global attention because of its fast depleting number and need for conservation. It symbolizes peace and harmony. The forests of Deogarh are conducive for elephant habitat as the district lacks any worthwhile industries and mining activities.

**Elephant Census:** Elephant census data for different years in this tract is presented in the following table.

## Elephant census from 2007 to 2015

Sl. No.	Year	Male	Female	Calf	Total
1	2007	05	15	07	27
2	2010	01	03	03	07
3	2012	01	09	03	13
4	2015	02	17	06	25

The reasons for variation in number of Elephant census figure between 2007 and 2015 is because these animals always move from place to place in search of food and water. Though these animals were not seen in Deogarh district, they were cited in adjoining Pallahara Forest areas of this Deogarh Forest Division.

### **Leopard (*Panthera pardus fusca*)**

Leopards are present in Deogarh forest division in isolated patches. This big cat is active, swift runner and an expert climber. Its preying ability depends chiefly on its acute sense of hearing and eyesight. It hunts at night and in the middle of the day. It has a yellowish-brown coat with a dark rose-shaped pattern. Leopards have been cited in the forest fringes and occasional lifting of livestock like goats and sheep have been reported from villages in the outlying areas of the forest.

### **Bear (*Ursus thibetanus*)**

Bears prefer these forests because they mostly feed on fruits, honey and insects which are aplenty in these forests. Especially, Khajuria, Pradhanpat, and Pravasuni forest blocks are known for considerable bear population.

### **Chital or Spotted Deer (*Axis axis*)**

It is seen in herds of 4 to 6 numbers on valleys and plains along the perennial streams and rivulets flowing in this division due to abundance of grazing ground.

### **Hare (*Lepus nigricollis*)**

These are seen in almost all peripheral forests in this zone. Body of these animals are covered with fur and hairs which enrich the jungle for their grace and playful activities.

### **Monkey (*Rhesus macaques and Semnopithecus entellus*)**

Mostly two types of monkeys are seen here. They are Hanuman langurs and Rhesus macaques. The langurs have got black face with silvery gray body colour. Hind limbs are longer than fore limbs. Females live in troupes headed by one strong male. Rhesus monkeys are red faced, comparatively of smaller size with short tail. Recently, there have been reportings of monkey menace in and around Deogarh town and Pradhanpat water fall area.

### **Fishing Cat (*Prionailurus viverrinus*)**

They live in river bank forests and hunt fish, crab, frog, birds, insects and sometimes other small mammals. It is a fierce animal, smaller than a leopard but is capable of mauling small animals. Its specialty is, it gets on to rocks overhanging water and swift at fishing with its paws.

### **Civet Cat (*Viverricula indica*)**

It is a small nocturnal carnivore and is valued for production of fatty substances with strong odour from its pouches close to the tail.

### **Jackal (*Canis aureus indicus*)**

Jackals are distributed uniformly in this forest. They scavenge on dead carcasses and are environment friendly animals. Although it is a highly endangered species.. Jackals mostly move in pairs.

### **Hyena (*Hyaena hyaena*)**

It is also a scavenger and feeds on carcasses. Very rarely seen now-a-days in this forest in either single or in pairs. It is rapidly getting extinct and is classified as highly endangered.

### **Sambar (*Rusa unicolor*)**

It is the largest of the deer group and is rarely seen in Khajuria, Pradhanpat, Pravasuni, Kansar and Rambhadebi forest blocks. The coarse, shaggy brown coat darkens with age and turns almost black in old stage. The forked-horns take four years to reach full size, but once fully grown, they are shed every year and then re-grown for the breeding season in winter. Sambar is usually found alone without companions except when young. When in danger it flicks tail, stamps feet and gives out a loud alarm call, which can be audible at a considerable distance.



### **Barking Deer or Muntjacs (*Muntiacus*)**

It is abundantly found in thickly wooded hills of Deogarh and is locally known as *kutra*. It is diurnal and lives in pairs. Its low pitch call sounds like the barking of dog and hence the common name.

### **Wild Boar (*Sus scrofa*)**

Wild boar is commonly sighted in forests and adjoining crop fields of Deogarh. They have long mobile snouts with terminal nostrils. It is omnivorous and feeds on rhizomes, tubers, seeds, insects and crops. It is known for its courage when faced with aggression from other wild animals.

### **Squareirrel (*Sciuridae*)**

It has elongated body covered with fur and has 5 long stripes of dark colour on the back. It is an arboreal, active climber and nests on trees. They It feeds on nuts, fruits and seeds.

### **Pangolin (*Manis crassicaudata*)**

It is noticed in dense forests. Its head, body and tail are covered with round horny scales. Its head is small with a short pointed snout, eyes and small pinnate. Its limbs strong with 5 clawed digits to dig anthills. It is a tree climber and can roll into a ball as a measure of defence.

### **Bat (*Chiroptera*)**

Bats live in colonies of hundred. Their body is covered with soft fur, have short snouts, pinnate is large, with small eyes of poor vision and concealed tail. They produce ultra-sonic sound waves for flight, areal navigation and direction. Their presence is considered to be an indicator of healthy ecosystem.

### **Otter (*Lontra Canadensis*)**

It is sighted near Gohira, Rengali and water bodies of forest fringe villages. It is a semi-aquatic animal with short and dense oily furs and does have webbed digits in both limbs for which it moves faster inside water. It feeds on fish, crabs and frogs.



**Bear (*Ursus thebetanus*)**



**Deer (*Odocoileus virginianus*)**



**Monkey (*Mocaca mulatata*)**



**Elephant (*Elephas maximus*)**



**Pangolin (*Manis Javanica*)**



**Wild Boar (*Sus Scarfa*)**

# BIRDS

## Terrestrial Birds

Terrestrial birds in Deogarh area have been divided into three groups, as high, medium and low, depending on their numbers. The birds like common mynah (*Sturnidae*), jungle fowl, hornbill, sparrow, raven, cuckoo, black drongo, crow, hornbill, red crow, king fisher, owl, pigeon, parrot, dove, nightingale and heron are seen in maximum number in this locality. The birds viz. Weaver bird, falcon, chat, woodpecker and hawk are seen in medium numbers. Birds like blue jay, black bee, grey crane, golden oriole, gander and 63aoists kite are seen in very few numbers.

## Aquatic Birds

The aquatic birds such as little cormorant, graylag goose, water hen and water fowl are seen in the water bodies of Deogarh. The details of recent Birds Censuses are given as under.

### Birds (Water Fowl) Census

Year	Deogarh Division.
2011	12,729
2012	11638
2013	37,440
2014	28,068
2015	22,962
2016	22,020



**Common Maina/Bani**



**White everted Myna**



**Peacock**

**Bulbul**

**Reptiles**

The common reptiles such as tortoise, lizard, iguana, and varieties of snakes are seen in this locality. Two varieties of tortoise such as *Kachuga tenteria* and *Chitra indica* are seen here.

**Glossary of Odia , English and Latin name of animals, birds, snakes, lizards, turtles and fishes found in the Forest division are presented as follows.**

**ANIMAS (Mammals)**

Sl. No.	Odia Name	English Name	Latin Name	Family	Schedule No.
1	Bajra kapta	Pangolin	Manis crassicaudata	Manidae	I
2	Badudi	Bat	Rouseltute schenaulti	Pteropodidae	V
3	Banabiradi	Wild cat	Felis chaus affinis	Felidae	I
4	Barah	Wild boar	Sus crefa cristatus	Suidae	III
5	Bilua	Jackal	Canis latranus	Canidae	V
6	Bhalu	Black bear	Selenarctos tibetana	Ursidae	II
7	Chital	Spotted deer	Axis axis	Cervidae	III
8	Chemani	House bat	Cynopterus sphinx	Pteropodidae	V
9	Gundichimusa	Squirrel	Funambulus penanti	Sciuridae	V
10	Gurandi	Mouse deer	Trangulus meinna	Tragulidae	I
11	Hati	Elephant	Elephas maximus	Elephantidae	I
12	Heta	Hyena	Hyaena striata	Hyaenidae	I
13	Jinka	Porcupine	Hystrix leucura	Hystriidae	IV
14	Kalarapatriya	Leopard	Panthera pardus fusca	Felidae	I
15	Katasa	Big wild cat	Paradoxurus hermaphrodit	Felidae	II

16	Khurant	Musk deer	Moschila menina	Tragulidae	I
17	Kokisialai	Fox	Vulpes bengalensis	Canidae	II
18	Kutura	Barking deer	Cerrulus muntjac	Cervidae	III
19	Mankada (hanu)	Black-faced monkey	Semnopithecus entellus	Cercopithecidae	II
20	-do- (pati)	Red-faced monkey	Macaca mulatta	Cercopithecidae	II
21	Musa	Mouse	Rattus rattus	Muridae	V
22	-do- (nepali)	Flying squirrel	Petauristaphili pinensis	Muridae	V
23	Nilgai	Blue bull	Boselaphus tragocamelus	Bovidae	III
24	Neula	Mongoose	Herpestes bengalensis	Viverridae	IV
25	Odha	Otter	Lutra lutra	Mustelidae	III
26	Samber	Deer	Cervulus unicolor	Cervidae	I
27	Saliapatini	Civet	Vivericula indica	Viverridae	II
28	Thekua	Hare	Lepus ruficaudatus	Leporidae	III

## BIRDS

Sl. No.	Odia Name	English Name	Latin Name	Family	Schedule No.
1	Bani	Common myna	Acridotheres tristis	Sturnidae	IV
2	Baya chadhei	Weaver bird	Ploceus philippinus	Ploceidae	IV
3	Bajapakhi	Hawk	Astur badius	Accipitridae	I
4	Banakukuda	Jungle fowl	Gallus gallus	Phasianidae	IV
5	Baja	Falcon	Ergetta garzette	Accipitridae	I
6	Bhadabhadalia	Blue jay bird	Coracas bengalensis	Muscicapidae	I
7	Bahadakhai	Grey hornbill	Tikos birostris	Bucerotidae	I
8	Bhrungaraj	Black bee	Dissomurus paradisens	Dicruridae	IV
9	Gunduri	Bastard gull	Turnix buscitotor	Turnicidae	IV
10	Chatak	Swift	Micropus affinis	Apodidae	IV
11	Chila	Kite	Mylvus migrans		IV
12	Dahuka	Water hen	Metopidius indicus	Jacaniidae	IV
13	Gendalia	Grey crane	Anastromis oseitens	Ciconidae	IV
14	Gharchatia	Sparrow	Passer domesticus	Ploceidae	IV
15	Ghukalika	Raven myna	Acridathares ginginianus	Sturnidae	IV
16	Haldibasant	Golden oriole	Oriolus xanthernus	Orididae	IV
17	Hansa	Gander	Anas poacierhancha	Podicipedidae	IV
18	Koeli	Cuckoo	Cuculus caronus	Cuculidae	IV
19	Kajalapati	King crow	Dicrurus maococerus	Dicruridae	IV
20	Kau	Crow	Corvus splendens	Corvidae	V
21	Kochilakhai	Hornbill	Anthrocceros coromatus	Bucerotidae	I

21	Kochilakhai	Hornbill	Anthroceceros coromatus	Bucerotidae	I
22	Kumbhatua	Red crow	Centropus sinensis	Cuculidae	IV
23	Mayura	Peacock	Pavo cristatus	Phadianidae	I
24	Macharanka	King-fisher	Caryle rudis	Alcedinidae	IV
25	Panikua	Little cormorant	Phalacrocorax nigar	Anatidae	IV
26	Pecha	Owl	Athena brama	Strigidae	IV
27	Para	Pigeon	Columba livia	Columbidae	IV
28	Sua	Parrot	Pistacula kramerii	Sturnidae	IV
29	Saguna	King vulture	Sacrogyps calvus	Muscicapidae	IV
30	Sankachila	Brahmin kite	Haliastur Indus	Muscicapidae	I
31	Kapota	Dove	Streptopellchin opensis	Columbidae	IV
32	Bulbul	Persian / Nightingale	Pyenonotus luteohes	Pycnonotidae	IV
33	Baga (kanti)	Pond heron	Ardeola grayii	Ardeidae	IV
34	Baga (rani)	Cattle egret	Bubulcus coromandus	Ardeidae	IV
35	Baga (rati)	Night heron	Nycticorax nydticorax	Ardeidae	IV
36	Kathahana	Ceylon hoopoe	Upupa ceylonensis	Upupidae	IV

## SNAKES

Sl.No.	Odia Name	English Name	Latin Name	Family	Scheduled No
1	Ahiraj	King cobra	Naja hannah	Elapidae	II
2	Ajararh	Indian python	Python molurus	Boidae	I
3	chiti	Painted krait	Bungarus coeruleus	Elapidae	IV
4	Dhamana	Rat snake	Ptyas mucosus	Colubridae	II
5	Boda	Rusell's viper	Vipera russelli	Viperidae	II
6	Dhulia naga	Sand viper	Echis carinatus	-do-	IV
7	Domundia	John's sandboda	Eryx conicus	Boidae	IV
8	Gokhar	Cobra	Naja naja	Elapidae	II
9	Kananoli	Grass snake	Ahetulla species	Colubridae	IV
10	Laudankia	Arboreal adder	Dryophis nasutus	Elapidae	IV
11	Dhanda	Water snake	Natrix piscator	Colubridae	IV
12	Rana	Banded krait	Bungarus fasciatus	Elapidae	II
13	Tampa	Monocellate cobra	Naja naja kuothia	-do-	II
14	Telia	Blind snake	Typhlops braminus	Typhlopidae	IV

## LIZARDS

Sl. No.	Odia Name	English Name	Latin Name	Family	Scheduled No.
1	Bahurupi	Indian chameleon	Chameleon zeylanicus	Chmaeleonidae	IV
2	Champeineoli	Mabuya	Mabuya bibro	Sciencidae	IV
3	Endua	Garden lizard	Calotes versicolor	Agamidae	IV
4	Godhi	Guana	Varanus monitar	Varanidae	I
5	Jhitipiti	Lizard	Hemidactylus flaviviridis	Gekkonidae	IV

## TURTLES

Sl. No.	Odia Name	English Name	Latin Name	Family	Scheduled No.
1	Pathuria kaincha	Land tortoise	Testudo elongute	Trionychidae	IV
2	Pani kaincha	Water turtle	Lissemys punctau granosa	Emydidae	IV

## FISHES

Sl. No.	Odia Name	English Name	Latin Name	Family
1	Balia	Trout / Wallago	Wallago attu	Siluridae
2	Baligarada	Sandeel	Glossogobius giziris	Gobidae
3	Bhakur	Carp	Catla catla	Cyprinidae
4	Chenga	Gilt head	Ophiocephalus gachus	Channidae
5	Chitala	Flat fish	Notopterus chitala	Notopteridae
6	Dandikiri	Grig	Esomus dandrica	Cyprinidae
7	Gadisa	Gudgeon	Ophiocephalus punctatus	Channidae
8	Jalanga	Ground fish	Panga sius	Pangasidae
9	Jahlla	Floating fish	Chela argentea	Cyprinidae
10	Kantia	Nail fish	Mystus cavasitus	Bagridae
11	Karandi	Minnow	Barbus ambasis	Cyprinidae
12	Magura	Cat fish	Clarius batrachus	Clariidae
13	Mirkali	Mrigal	Cirrihana mrigal	Cyprinidae
14	Neuli	Small sand fish	Gobiopterus ohund	Gobidae
15	Pohala	Water fish	Cirrhinus reba	Cyprinidae
16	Pabata	Callichrous	Callichrous bimaculatus	Siluridae
17	Phalli	Flounder	Notopterus notopterus	Notopteridae
18	Rohi	Breeding fish	Labeo rohita	Cyprinidae
19	Serana	Minnows	Barbus serana	Cyprinidae
20	Seula	Big gudgeon	Ophiocephalus striatus	Channidae
21	Singi	Scorpion fish	Hetero pneusstes fossilis	Pneustidae
22	Todi	Eel	Mastocembelus armatus	Cembelidae
23	Chungudi	Shrimp / Prawn	Palaemon malcolmsonii	

## Rare Fauna and Flora of Deogarh District

Forests in Deogarh district provide habitat to several animals which are unique and very rarely found in forests of other districts in Odisha. Brief description of each such species is given below

**Flying Squirrel :** The scientific name of Flying Squirrel is *Pteromyini* and it belongs to sciurid family. It cannot fly like an avian bird but glide between trees.

They can glide up to 90 (ninety) meters.

The tail works as air brake during landing on tree trunk.

They have a membrane like skin on either side of their body.

The life span is about six years.

They are omnivorous and nocturnal.

At birth they are hair-less having no senses.

The internal organs are visible through the skin.

They are fully developed by five weeks, develop a mind of their own.

### Chameleon

Scientific name- *Chamaeleo calytratus*, Family –*Chamaeleonidae*  
They are found in warm climate. In Deogarh district they are available in Pradhanpat Reserve forest and forest around Kantabahal-Tinkbir of Reamal. They have ability to change colours. They have very long, highly modified, rapidly extricable tongues. The eyes are independently mobile, tail is prehensile. The life span is about 5 years. They are insectivores.

They can project their tongue more than twice their body length.

### Insectivorous Plant

Scientific name –*Drosera burmanii*, Family –*Droseraceae*

They are found in Kantabahal ( Reamal) of Deogarh District.

It is a carnivorous plant.

It is a herb having short stem, leaves in a rosette.

It is an annual plant grown during cold months.

Its leaves can curl around the insects in a few seconds.

Scientific Name-*Ficus bengalensis*, Sub Type- Krishna.

Local Name – Olatabara(Bata) Found in Purunagarh of Deogarh.



## **Vulnerability of Forest Crop**

### **Biotic Factors**

The forests of Deogarh Division are vulnerable to injuries due to biotic factors and natural calamity. Plants, insects, man, wild, and domestic animals are the major biotic factors normally causing injuries to forests. Natural calamities and factors like flood, drought and soil erosion cause injuries to the forest of this tract. Man and animals are the most important factors affecting vegetation. Though man has been managing these forests on scientific basis since 1908, yet he continues to be the most liable and powerful agent in destroying and damaging forests.

### **Deforestation and denudation**

Deogarh was a thickly wooded division in the past. With the increase in population and consequent need for bringing greater area under the plough, homestead and other developmental projects and works, extensive areas have been deforested.

### **Forest Fire**

The cause of forest fire is mainly due to the inhabitants close to the forest for collection of mahua flower, sal seed, hunting and food gathering. Forest fire generally occurs from February to May every year. Uncontrolled fire results in enormous damage to forests as follows.

- (i) Loss of young and tender plants
- (ii) Death of wild animals
- (iii) Destruction of rare herbs and medicinal plants
- (iv) Rise of environmental temperature
- (v) Loss of soil moisture and fertility

### **Van Sanrakshyan Samiti (VSS)**

For better protection of forest, Van Sanrakshyan Samitis (VSS) have been formed in different villages under Odisha Forestry Sector Development Project (OFSDP) from 2006 to 2014 with financial support from Japan International Co-operation Agency (JICA). In the process, 177 numbers of VSSs have been formed in different villages of this district. The main objectives of the project are Restoration of degraded forest

- (ii) Livelihood improvement of the communities dependent on forest.

To achieve the objectives, a multi-purpose building for each VSS, means for capacity building of VSS members and revolving fund for income generation have been provided to the community.

## **Legal aspects**

The Reserved Forests and Proposed Reserve Forests and Demarcated Protected Forests are dealt under Odisha Forest Act, 1972. The protection of forest and wild life of Deogarh district are being regulated by the prevailing Odisha Forest Act, 1972 and The Wild Life (Protection) Act, 1972. The Wild Life Protection (Odisha) Rules, 1974, the Forest (Conservation) Act, 1980, National Forest Policy, 1988 and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 have also come into force over the years. These Acts and Rules and the new National Forest Policy have bearing on working of these forests.

## **Rights and Concession**

The following rights and concession have been granted to the public for obtaining timber, bamboo and other forest crop.

(i) Bamboo- In the existing depot at Deogarh, the Odisha Forest Development Corporation (OFDC) Ltd. will sale Salia Bamboo to the local people at prescribed rate. This rate is inclusive of the royalty applicable to the district. Each tenant will be supplied 50 bamboos per annum on 'first come first served' basis subject to availability.

(ii) Fire accident – In case of fire accident in any village or locality, forest material like bamboo and timber will be supplied by the OFDC Ltd at the cost inclusive of transportation charge, on requisition from the Tahasildar as per prevailing rules and rate.

- i. House building material – These will be supplied from the corporation depots at rates prevalent at the relevant time.
- ii. Agricultural implements – The OFDC Ltd supply forest materials for agricultural implements at their respective depots including coupe depots at reasonable rate .
- iii. All supply/ sale of forest produce will be on 'first come first served' basis subject to availability of forest material.
- iv. The villagers may collect edible roots, fruits, leaves, creepers for their personal consumption without permission and free of charge from their forest areas allotted to them under Joint Forest Management scheme.

Due to Rengali Dam Project displaced families of submerged villages have been settled in different forest blocks of this district for which there is tremendous biotic pressure on existing forest growth both on flora and fauna.

## CHAPTER-IV

### PEOPLE AND DEMOGRAPHY

#### Deogarh District, an Amalgam of People

Prior to independence among the twenty *Gadjats* of Odisha, Bamanda (Bamra) was of distinction for its unique identity in terms of its people, their culture, tradition and refinement in art and literature. The land gave its people graceful living. The State of Bamanda with its capital at Deogarh has remained a natural domain of peace and pleasure. Originally a land of aborigines like Kandh, Oram, Bhuyan, Munda who constitute a larger proportion of the population of the district, several other people of varied castes have got assimilated as residents and live in perfect harmony with the primitive dwellers. Some tribal migrants from neighbouring state of Jharkhand (formerly a part of Bihar) have settled in Deogarh district. Other outsiders and rehabilitants affected by the Rengali Dam Project have been resettled in this district. Such factors have created an amalgam of various traditions and cultural practices and have influenced the life and living of the people of Deogarh district. This has resulted in acculturation of the primitive natives who have changed their lifestyle with the changing times.

#### Size and Population

Geographical area-wise, Deogarh is ranks 23<sup>rd</sup> among the thirty districts of Odisha with an area of 2940 sq kms. Population-wise, it is at the bottom with 3,12,520 people according to 2011 census. The district is divided into three Community Development blocks, Tileibani, Reamal and Barkote. Deogarh, the headquarter town is the only municipality in the district. The following table gives the population size of the District according to 2011 census.

#### Basic Information at a glance with Demographic Analysis

Units	Male	Female	Total Population
Tileibani Block	37,328	37,156	74,484
Reamal Block	54,495	52,981	1,07,476
Barkote Block	54,843	53,327	1,08,170
Deogarh MPL	11,562	10,826	22,390
TOTAL	1,58,230	1,54,290	3,12,520

The increase in population from 1991 to 2011 is remarkable. The trend of growth is indicated in the table below.

## Trend of Population in Deogarh District

Census Year	Total Population	Decennial growth rate	Population Density (per sq. Km.)
1991	2,34,228	18.50 %	84
2001	2,74,108	17.02 %	93
2011	3,12,520	14.01 %	106

## Birth and Death rate

The Annual Health Survey report provides the following information for two years.

### Death per thousand Live Birth

Year	Crude Birth Rate	Crude Death Rate	Infant Mortality Rate
2010-11	18	8.6	58
2011-12	18.4	8.7	62

*(Note : This aspect has been dealt with more elaborately in Chapter – XV on Medical and Public Health.)*

## Rural-urban population distribution

The district headquarter of Deogarh town is the only urban habitation and the only municipality in the district. The municipality was established in 1912 during the reign of Raja Satchidananda Tribhuban Deb. The three block headquarters are treated as semi-urban areas. Rest of the human habitations are rural. People displaced due to submergence of their old villages in the Rengali Dam Project have been resettled and rehabilitated in new villages which in course of time have got properly grounded with basic amenities and required administrative and welfare institutions. The largest number of the total population of the district is villagers.

Majority of the people constituting about 80% of the working population are agriculturists or are engaged in farming related occupations, vocations, and activities. People engaged in trade, business and other services are comparatively less. This is due to absence of mines and lack of any large or medium scale industry in the district.

The table below profiles the distribution of male and female population in various productive occupations and activities either as main or marginal workers.

		Main workers	Marginal workers (3-6 months)	Marginal workers (0-3 months)	Total worker as occupation/ avocation	
Cultivation	Male	24,947	3,819	975	29,741	1,25,150 (or 76 % of total workforce)
	Female	7,137	4,281	1,501	12,919	
Agricultural labour	Male	14,941	17,689	4,015	36,645	
	Female	9,521	29,701	6,623	45,845	
House hold based	Male	2,595	993	217		
	Female	2,177	1,622	483		
others	Male	17,153	4,102	938		
	Female	4,937	3,663	1,405		
Total		83,408	65,870	16,157		Total 82027

Most of the working males are whole time workers in various vocations, professions, and productive activities. About 68 % of the total female workers are marginal workers.

There are some seasonal workers who collect forest produce like kendu-leaf, mohua (mahul) flower and such other forest produce in the annual seasonal cycle.

## Age, Sex and Occupational Composition

### Age composition

Population of Deogarh district dis-aggregated in different age groups is indicated as follows:

Age Groups	Population
0-4 years	27674
5-14 years	64276
15-59 years	191093
60 and above	28797

(Note : 680 persons could not state their age.)

### Gender Composition

Out of total population 3, 12,520, 158230 (50.63%) (as per 2011 Census) were male and 1,54,290 (49.37%) were female. This gives gender ratio 975 females to 1000 males in the district.

### Occupational Composition

The total workforce of the district comprises 1,65,435 persons i.e. 52.94% of the total population . The child in 0 to 6 years age group consists of 39,917 persons (12.77 %). Out of the total workforce 49.59 % (almost half) are marginal workers. Further out of them 9.77 % works for only 0 to 3 months in a year.

About 76 % of the total workforces are engaged in agriculture either as land-owning farmers or as agricultural labourers.

Female workers are mostly marginal workers as compared to their male counterparts. Agriculture and household based work are the main sectors accommodating female workers. Most of the Marginal agricultural labourers are females.

Most of the Male are Main Workers. About 68 % of the total number of working women are Marginal Workers.

**Languages**

Odia, Sambalpuri, Agaria, Oram, Munda, Sadri and Hindi are the major languages spoken in the district. Sambalpuri language with local variation in accent serves as the lingua franca among the people of various linguistic affiliations. English is used mostly in official transactions, and as a medium of instructions in classes above under graduate stage. Educated people slip into English in usual conversation and a lot of English words get interjected during such oral communication. Hindi words and expressions too have gradually got into common conversation. This is due to the pervasive effect of electronic media like television, radio and mobile phone.

**Literacy and work participation rate**

**Literacy**

According to the General Census 1991, the district was declared as educationally backward district in Odisha. The district has rich cultural background in education. From 1845 onwards literacy drive was augmented by the then Raja Late Braja Sundar Tribhuban Deb. To impart primary education was made compulsory in the district by Sir Basudeb Sudhal Deb K.C.I.E. (1866-1903). Deogarh earned the eulogical epithet of “*Budha Hansha Kelisar*” by inheriting its pristine heritage and culture.

Literacy rate is fairly high in the district with 72.57% literates out of which male literacy was 81.92% and female literacy was 63.05%.

**Work Participation rate in the district as per 2011 census is given in the following table**

<b>Work Participation Rate</b>				
	Main Workers	Marginal Workers	Total	WPR
Rural	76,904	80,486	1,57,390	54.2
Urban	6,504	1,541	8,045	35.9
Total	83,408	82,027	1,65,435	52.9

The participation of main workers and marginal workers in rural sector is 54.2% and in urban area it is comparatively low as 35.9%.

## **Castes and Tribes**

In Deogarh district Pana, Tanla, Dhoba and Dewar are the major Scheduled Castes. Among the Scheduled Tribes, Kisan, Munda, Bhuyan, Oram and Gond are the major ones. In the table below the aggregate percentage and male-female number of the Scheduled Caste and Schedule tribe population is indicated.

	Male	Female	Total	%age
Scheduled Caste	26,343	25,769	52,112	16.67%
Scheduled Tribe	55,126	55,274	1,10,400	35.33%

## **Inter-caste relations**

Different castes within the Hindu society were closely interrelated to each other and were mutually interdependent in matters of their social as well as economic life. Deogarh district is an agglomerate of various castes and tribe and all people live in perfect harmony. Caste conflicts are few and far between. Each caste practise endogamous marriage. Marriage outside the caste does not receive family acceptance and social sanction; such couples are treated as outcastes. The traditional Hindu social structure bound by rigid mores and codes is gradually losing its traditional moorings. Despite the effort of each caste to maintain its unique identity and inherent character of cultural protectionism and caste possessiveness, inter-caste marriages are taking place. Most of the castes, more so the artisans, have lost their traditional skills and occupations. This is largely due to the impact of education, mechanisation of the production sector, the market economy and the obliteration of isolation because of improved communication system both physical and in the information sector.

Similarly the tribes are giving up their self imposed seclusion with the change, progress and development both in the socio-cultural and economic fronts, but hold on to their exclusivity in areas of faith, social norms and community habit and character. They have very close relationship with other castes and ethnic groups.

## **Religion and Religious beliefs**

Majority of the population of the district are professed Hindus. The other religions according to the number of people practicing are Christianity, Islam and Sikhism.

The Hindus follow the Sanatan or the Brahmanical form of Hinduism having a vast pantheon of deities. There affiliation to any particular school, sect or sub-system like *Shaiva*, *Vaisnaba*, *Shaktya*, *Smrata* or *Ganapatya* are not clearly pronounced in their religious conduct, fairs and festivals or in any other visual bearing, attire or ritual manifestation. They observe many

festivals in the glory of several gods and goddesses of various denominations throughout the year and usually, solicit the services of a Brahmin priest to conduct the rituals in public places of worship and during collective social occasions or sacred family performances. Deogarh has several temples exclusively dedicated to specific divinity though not of much antiquity or of architectural or structural importance like some other places in the state.

There is a sect, *Mahima dharma* within the fold of Hinduism which is considered as an offshoot of Hinduism with some prescribed rigidity in life style of its followers. Many people from the socially deprived and the downtrodden of the Hindu society took to Mahima dharma which in the late 19<sup>th</sup> and early 20<sup>th</sup> century was considered a path breaking cult to liberate Hindu society from the bigotry of diehard priestly class who encouraged untouchability and isolation of the Sudras. Joranda, a small village of Dhenkanal district is the main seat and prime ecclesiastical centre of this cult. Their way of life and religious practices closely resemble that of Buddhism in aspects of life style, and not rituals. They believe in one God that is *Nirakara Brahma* having no definite shape or form. In Deogarh district numerically they are a minority. Followers of Mahima dharma have a seminary or *gadi* similar to that of a Hindu *matha* near Rengalbahal village under Reamal police Station.

Even though due to acculturation major tribes have taken to the Hindu way of living, still many tribes worship their own set of gods. They are animists and their deities usually dwell in nature like mountains, hills, forest, rock, trees, water and fields. To propitiate the deities they take recourse to animal and bird sacrifice during family or community rituals. One person designated as *Dehury* or *Jhankar* performs the *puja* and help of Brahmin priests is dispensed with, nor do the Brahmin priests show any inclination to conduct the tribal rituals. Now the gap between different sects of Hinduism is diminishing day-by-day and all are accepting the Brahmanical form of Hinduism more and more. Per contra, some tribal deities like Rambhadebi are widely accepted by all cross-sections of the Hindu society in the district.

A recent phenomenon is the emergence of some new religious sub-groups among the Hindus. Prominent among them are the *Sanatanis* having a Centre at Rengalpali Matha, the Gayatri Parivar having a Temple at Deogarh, and the devotees of gurus 'god-men' Satyasai Baba, Siridi Sai Baba and Anukul Chandra, etc. Despite the presence of multiple followers of varied denominations and calling, no intersect or intergroup conflict has been noticed among the Hindus in this district.



Going by the number of followers Christianity is the second largest religion of this district. There are two groups of Christians. One group owes allegiance to the Roman Catholic Church of Rajamunda and the other is by the GEL (Lutheran) church of Nilaberni Sahi of Deogarh Town. Most of these Christians are from Oram, Khadia and Munda tribes and are migrants from the neighbouring Sundargarh district.

Muslims of this district are mainly confined only to Deogarh Town. They are of two sects – Wali and Sunni. Gradually some of them have shifted their residence to other semi-urban areas like Ballam, Barkote, and Tileibani for professional reason. Muslims are residing at Deogarh since the days of the feudal rule, when they were brought in for some specialised profession and skilled job like taking guard, maintenance of the royal magazine and stable, etc. They have the one and only mosque in Deogarh town.

Sikhs are of a countable and very small number in this district. They have no Gurudwara in this district.

## **Manner, Custom and Tradition**

### **Manner**

Manner of the people stem from the dogma of the feudal past and endowed landholding (*jagir*) and other benevolent largesse gifted to them by the royals for the services rendered and allegiance to the ruling house. People even in the democratic dispensation abound in quality of royal passion and loyalty to the state power. By nature they are polite and courteous in disposition and generally soft spoken, traits which they have acquired since the days of the Raj when oppressive regimentation was the norm. The manner of attire and the style of wearing of *Dhoti*, *Punjabi*, *Kurta*, *Trouser* and *Gamuchha* (Towel) are unique and expressive of refined sense of clothing. Women of all social groups use Sambalpuri handloom and textile mill *saree*, blouse and petticoat as their garment. Of late, the young generation, both men and women, have taken to fashionable clothing of various hues and designs. People are in the practice of using '*Kira/ Kirabo*' in their distinct colloquial language and conversation, which in some other neighbouring district draw amusing remark of the people. They also speak mixed language of Sambalpuri and regional Odia. Tribes too have taken to modern ways of living in terms of dress, food and beverage. Only one beverage they have not been able to part with. Both male and female of a large number of tribal groups take '*handialkusnaa*', home brewed fermented rice beer almost daily, along with other intoxicating substances. Use of alcoholic beverage and other narcotic substance is done surreptitiously by a few addicts as it is associated with social stigma and shunned by the people in general.

## **Custom**

Art textile along with fabric for everyday use was very popular in 19<sup>th</sup> Century. Skilled weavers were patronized by the then king Sir Basudeb Sudhal Deb to produce traditional *Sarees* and different clothing material. Looming was an important activity assigned to the inmates of Deogarh Jail while serving their term of conviction. Certain items like coarse carpet, country towels, etc. produced by the jail inmates were considered of quality. Cocoon Silk or *Resham* fabrics are locally produced by small scale industries organized by private entrepreneurs and traders. In a competitive market handloom of all kinds are struggling to survive and mass produced mechanised loom textile has proliferated the market as elsewhere.

People are very fond of gardening and horticulture. High quality of mango, litchi and oranges produced by farmers of the district have high acceptance outside and have bolstered the economy of the horticulturists. Certain varieties of indigenous paddy and rice are exclusive to the district as they are bio-friendly and are considered organic as they are grown in a customary manner without the use of any chemical fertilizer and inorganic inputs like pesticide or insecticide. A large number of the farming community are Chasa, Kuiltla and Agaria by caste and they have kept alive old agricultural customs, practices and traditions.

## **Tradition**

Several traditions and community practices of Degabad district are related to religious rites and some are social events. Both the early dwellers and also the later settlers of the district have influenced and assimilated traditions from each other. There has been a balanced blending of traditions in this land encouraged by the rulers of the feudal time and the subsequent administration of the current times, which has resulted in communal symbiosis and synergy.

These traditions have been most markedly felt in the areas of traditional medicine and systems of healing by following witchcraft and other weird methods. Traditional healers still are preferred for treatment of snakebite victims irrespective of the result. Village faith and magic healers, occultists and quakes do have presence in the hinterland though their number and believers in them are on the decline. Superstitions still continues among some people who are not in tune with the scientific and tasted methods OF medical systems, Indian or alien. People recall with fondness past practitioners of the occult and extortionists who were believed to have cured people possessed by some evil spirit or dark ghost. One such name which has gone into the local lore is that of one Sashi Bhusan Deb, a man with royal lineage for his prowess as an extortionist. Apocryphal tales like his feat

of walking over water wearing a pair of wooden sandal (*kathau*) does the round even now.

Religious traditions are most pronounced in periodic rituals and festivals. In most of the Hindu families, the dark fortnight of the month of *Aswin* (September-October) people offer oblations (*shradha*) to their manes and past ancestors. Likewise, during the same month in favour of the brothers and sons two rituals, *Bhai jiuntia* and *Puo jiuntia* are performed by the sisters and mothers respectively in each Hindu family irrespective of caste with austerity. Various religious festivals and community festivities observed in both urban and rural areas are *Shri Ganesh Mela*, *Durga Puja*, *Laxmi Puja*, *Nuakhai*, *Rakhi Purnima*, *Janmastami*, *Anla Nabami*, *Ratha Jatra*, *Chhad Khai*, *Push Puni* just to name a few. Of these *Nuakhai* and *Push Puni* are unique to Western Odisha and are festival of agrarian in nature relating to fertility, harvesting and productivity. Certain unique festivals and carnivals like *Rahas Jatra* of Tainsar exclusive to those places. Primitive practices like *Changu* (a one-sided drum) *Utsav* by Paudi Bhuyans, *Karma* by Khadias, *Mundas* and *Orams*, *Jangha Linga Puja* by Gonds are events of the aboriginal people traditionally performed since ages. Tribes have their pantheon of divinity. Each god or goddess is ascribed with some physical, metaphysical and natural phenomena. In each tribal village a *Gram Debata* acts as the presiding deity and as the guardian angel of the community and periodic traditional and primitive rituals are performed to propitiate them with prayers to guard the community from any calamity or catastrophe.

### **Traditional Birth Rites**

Births and deaths have been the most interesting and yet baffling phenomena in each human society. Natal (birth) and funeral (death) rites by tradition in each community vary according to their faith and social practice. In case of birth among the Hindus, from the day of conception till delivery the expectant mothers go through a strict regimen of living, food, and various other functions. After birth of the child, several days are marked for rituals like the sixth, the twenty first and so on. These are by tradition and by any codified rule. Likewise the naming the child and the child partaking first solid food after the age past six months of birth and performed according to the traditions of each community. On such occasions the maternal side of the child too play vital role in the rituals which indicates at the social and tradition bond between the paternal and maternal families.

No elaborate manners and regimen is followed among Christians of Deogarh other than the baptism ceremony (locally called *duban*) conducted by the priest or pastor of the given denomination of the faith which inducts the child in to the faith and names the child on that occasion in the Church.

Though Muslims are a miniscule minority in Deogarh they meticulously follow the birth rites of when a child is born. Soon after a child is born *adhan*, a prayer is whispered into the baby's ears by a *mullah* or a *qazi*, with the belief that those being the first words that is heard by the child in praise of *Allah*. Another belief in this ritual is that the first taste of a child should be sweet, therefore the baby is fed with a teaspoon of honey.

## Funeral Rites

Burial systems and funeral rites not only differ as per religion and faith, but also differ among different groups in the same faith based on clan and caste consideration.

The Muslims and the Christians bury their dead bodies in specific manner observing their respective rites in graves (*qabar*). The Christians carry the dead in a coffin and keep the head of the dead body towards East. Christians put a replica of the Holy Cross at the head of grave after burial. The Muslims cover the dead body with a shroud called *kafan* and carry it in a *zanaja* to the burial ground (*qabrastan*). They never keep the legs towards the West. The Hindus, who bury the dead bodies, usually put the head of the dead body towards North. The Hindus usually carry their dead to the cremation ground on a inverted string cot or a frame made of bamboo which is called *kokei* in Odia. The cremation is done over a wooden pyre after certain funeral rites performed by a priest. Usually the eldest male child of the dead lights the pyre. In case of death of a Bramhin the funeral rites are quite elaborate. The preparations for cremation in case of women vary depending on the marital status of the dead. It is different for the dead who has the husband living and different for a widow.

On the death of an infant or any other person due to reasons of unnatural death or some specific disease usually the dead is buried with the head placed towards the North. After cremation and when the pyre cools off, Hindus collect the ashes and immerse it in a sacred river or those who prefer and are capable immerse it at *Prayag* (Allahabad) at the confluence of the rivers Ganaga and Yamuna. Hindu families observe 12-day ritual mourning on the death of a kin. On the tenth day all the sons of the dead get their heads tonsured and a sanctification ritual is performed in the patriarchal family. This is one of the important penance rituals of the total ten Hindu ordained rites and rituals. Most of the tribes and some scheduled castes bury the dead. Of late even these ethnic groups have taken to cremation of the dead like the mainstream Hindus and get themselves tonsured.

## Home, Community and Social Life

### Home

According to the provisional figures of the 2011 census, out of a total of 71,655 households in the district, only 9,314 households have fairly good residence, 52,946 households have liveable houses and 9,395 households have houses in various state of dilapidation. Majority houses in rural areas and down town Deogarh have *khapra/khaparali*, roof of handmade tiles, walls are of hand moulded baked mud bricks and the flooring is of mud periodically brushed with cow dung paste.

The census figures on households, assets and amenities as in the year 2011 reveal that only 3,780 households get piped water from treated sources. The major source of drinking water is hand pumps. Total of 3,835 families still meet their domestic water requirement from tanks, ponds, rivers, springs and other natural sources.

Electricity is available in 22,453 households in the district for domestic consumption. For 51,938 households kerosene is the only means for domestic lighting. There are 946 households have no facility of any lighting arrangement. For 70,092 families there is no bathing facility at home. 6,971 families have toilets/latrines facility at home. 68,517 families are used to open defecation.

A total of 71,476 families use firewood as their fuel for hearth at home. Out of these families 21,172 families have no separate kitchen and use a portion of their living space for the purpose of cooking.

The age-old tradition of joint family system is on the wane in the district and gradually most of the families are becoming nuclear in composition. Deogarh district is having 6,595 two married couple families, 569 three married couple families and only 85 families have quadruple married couples. There are single married couples in 56,506 families. These single-couple families usually have either one or two rooms for them. In 3,042 families of the district, the married couples do not have exclusive living space for them to maintain privacy.

Banking service is being availed by only 31,645 families. Total 26,973 families are devoid of even any one daily use assets like radio, transistor, TV, internet, bicycle, any automobile, mobile phones or any such electrical or mechanical utility items. They are thus at the lowest economic strata. There are 462 families having all assets like TV, computer, laptop, telephone and automobile. Internet facilities are available with 825 families.

Gradually the traditional artistic beautification of the houses through *jhoti* has diminished. It is being done in only certain families during the month of *Margasira* and during family festivities like marriage ceremonies. However women of Bhuyan and Ho communities still paint mud walls of their thatched houses with different earthen, natural, mineral and vegetable colours artistically with great aesthetic appeal to the beholder.

The use of different traditional ornaments like *kataria*, *bandaria*, *taad*, *bahasuta*, *khagla*, *gunchi* or *antasuta*, *guna*, *dandi* and *nak putuki*, *khirpini* (hair-pin), etc have become almost obsolete, except among the old in certain tribal communities. However, ladies use gold necklace, ear rings, gold bangles and silver ankle-bell called severally as *paunji*, *panjhal* or *payal* of modern design and make including some cheap imitation ornaments.

## Community

Community life of Christians is centred round their Churches and Muslims their mosques. The Hindu community life is maintained through its various festivals at village level. Dance is an integral part of many tribal festivities and celebrations among Mundas, Orams, Kisans, Hos, Paudi Bhuyans, etc. All tribal folk dances are distinct having peculiarity of their own but they have the similarity that their ladies dance in groups of single file holding each other's hands. Percussion instruments like *Dhol*, *Madal*, *Tasa*, *Nisan*, *Dhumsa*, *Jhanj* and *Dhap*, and pipe-instruments *Muhuri* and flute provide the vibrant and sonorous music are played on festive occasions as accompaniment to dances.

But among the non-tribals, the women folk do not dance in public during festivities. Male members assemble and dance in *Sankirtan Mandali*. Each village has at least one such *mandali*. Each *mandali* uses *mridanga*, a two way tapering traditional drum and *gini*, a pair of cymbals of bell metal. The persons of the *Mahima* sect use *khanjani*, a one way percussion instrument clad in *gecko* lizard skin membrane. *Krushna Guru* devotees also use *khanjani* and *gini*. *Krushna Guru* is more accepted form of community devotional singing among scheduled castes who were socially ostracised in the past by the so-called upper castes.

*Danda Nacha* was the most favourite folk dance of this district but it is losing its popularity day-by-day. Usually a group of 25 to 30 persons form a group and perform in the Hindu month oh *Chaitra* (April-May) by moving from village to village by invitation or requisition. This dance is performed in prayer and praise of Lord Shiva and derives its nomenclature from a wooden shaft called *danda* symbolic of the divine power and presence. Through several episodes and characters, the divine descend from the terra firma to terracotta. Human and familiar animal characters in *Danda* reflect the day-to-

day life of common man, his occupation, issues in life and solutions to mundane matters. It was the main source of social education for the illiterate rustic masses of agrarian society, the performance embellished in *puranic* characters and tales. With the advent of new media of mass entertainment many traditional forms are getting extinct. So is the case with *Danda Nacha*.

*Bandi buthal nacha*, *ghuduka nacha* and *gouda badi khela* were very popular among the people in the past, but they too like *Danda Nacha* are now almost extinct. *Karama nacha*, a group dance performed by the tribes during the month of Aswin (September-October) is another important form of dance popular in the district. A *mandal* is the sole instrument used in *Karama*. This dance is performed to invoke the god *Karamsami* who is considered as a benefactor and the deity of fertility.

Deogarh district bears a mixed culture being at the boundary of Western Odisha. The tribes like Gond, Kisan, Munda, Kandha and other castes like Agharia, Kulta, etc. bear the western Odisha Culture, whereas the majority of Brahmins, Chasa, some scheduled castes like Pana and Hadi bear eastern Odisha culture. Further some Munda, Ho, Oram, Khadia and mainly Christians bear the culture of Chhotnagpur plateau. In spite of such cultural diversity and differences, village life is well knit with fraternity and mutual cooperation among each group.

### **Social Life: Right to Property and Inheritance**

Land is regarded as the most precious possession by all families. Each ethnic group or religious community follows the tenets of right to property, mostly immovable, and the laws of inheritance. The Hindus of the district are governed by the *Mitakshara* Law, the ancient law of Hindu succession. But the tribes have their own traditional and customary laws of right and ownership over property and inheritance. In many tribes the position is gradually changing and they are adopting the modern codified Laws as enacted by the Legislatures, both Central and State from time to time, like the non-tribal Hindu in recognizing the Woman's right to property. Traditionally a married daughter does not get or claim a share in the parental or paternal property even though the extant laws allow such inheritance. The Christians are governed by the Indian Succession Act and the Muslims have their personal laws as enunciated by the All India Muslim Personal Law Board.

### **Marriage and morals**

Marriages are largely confined to one's own religion and caste. Now inter-caste marriages have started, but there have not been any reported case of inter-religion marriage in Deogarh district. There is restriction of

marriage within blood relations or even the same *gotra* or clan among the Hindus. *Prajapati Vivaha* or the form of arranged marriage is the most common practice. *Gandharba Vivaha* or the form of Hindu marriage without the consent of the family elders is almost nonexistent. Marriage within prohibited relationship is always looked down upon and such couples always face social ostracism. Dowry system prevails in the district mostly among the Hindus. Domestic discord, matrimonial disharmony, and even dowry deaths are also reported at times. In some cases the scourge of dowry has pervaded the tribal marriage system, which was nonexistent. The *udhulia* (elopement by consent of both the bride and the groom) and *ghicha* (capturing of a bride by force) marriages were earlier prevalent in some ethnic groups, but of late they are very rare occurrences if any. Love marriages, instead, are gaining ground among the younger generation transcending the barriers of caste. Marriage of widows is not considered a taboo and is not prohibited but not popular in the district. Divorce is a normal accepted practice in some communities in the lower socio-economic strata. Such separations are not properly governed by the set law and procedure, but rather by old community conciliation and settlement system.

### **Status of Woman**

Position of woman in household affairs among the tribes is better than the non-tribal communities. But such tribal women have no effective say in community affairs. There is no woman representation in any caste-assemblies and women have no role in decision making in clan or caste affairs. However, with the change in the Panchayat Raj and Local Self-government system through legislation women have got their due in elected bodies as a system of quantified reservation at all the three tiers of the Panchayat Raj system. Voice of women in community affairs have got further strengthened through woman movements against country made liquor and forest protection initiatives. Almost every village has women self help groups who are playing the major role in protecting their traditional forest resources. Recently the women folk have been empowered through Self Help Groups (SHG). In spite of these recent developments the society is still a patriarchal one dominated by males. Women are yet to get their due right over family properties. They are still lagging behind their male counterparts in the field of education, health and work opportunity and are still striving hard for a dignified place in their own family.

### **Fairs, Festivals and Ceremonial Practices**

Festivals are reflective of socio-anthropological evolution of life style, community dances are connected in certain worship/functions, colourful folk dances, and folk songs to the accompaniment of folk musical instruments



are used on many occasions. Ritual performances like *Nuakhai*, *Karamasani*, *Puo Jintua*, *Rakshi Bandhal*, *Janmastami*, *Dasahara*, *Deepabali* and *Puspuni* are observed as common festival in a pellucid manner in Deogarh district each occasion having impact on the life and living and faith and belief of the people.

The ritualistic worship and religious festival of Lord Sri Ganesha Puja is one of the oldest community celebrations having cultural manifestations in Deogarh town. Held for a week at the Suratarangini Market complex in the heart of the town, the occasion receives large number devotees and visitors from all part of Odisha and from the neighbouring states. Though of religious import, the occasion assumes the proportion of a carnival.

*Utsav Pradhanpat*, the community festival of Deogarh which in common parlance with other districts of Odisha is known as *Lok Mahotsva* is observed with much pomp and fair on a natural stage in the proximity of the Pradhanpat waterfall. The scenic and serene beauty of the environ and the choicest performance of folk artistes drawn from various parts of the state and elsewhere draws visitors from all over the district including local traders. Among other festivals, Car Festival of Lord Jagannath at Purunagarh, Chandan Yatra at Kalla, Shiva Ratri at Jhadeswar Temple, Thakurani Yatra of Basaloi, Laxmi Puja at Kandhal, Durga Puja at Ballam, Kali Puja at Barkote, Makar Yatra, Gayatri Jagna and Geeta Jagna are celebrated at Deogarh and other locations. Rambhadebi Yatra at Basudevpur, Dola Purnima at Tainsar, Ratha Yatra at Barkote are some religio-cultural events observed transcending all caste and ethnic barriers reflecting harmonious community living.

The Paudi Bhuyans celebrate and worship nature 'king' and 'queen' on several occasions near brooks, fountains and hill streams in spring, rainy and winter seasons. Such occasions amidst merrymaking, young boys (*dhangda*) and girls (*dhangdi*) of marriageable age choose their life partners with the explicit sanction and consent of the elders. It is a treat to watch the intelligent repartee and quick wit of both the young boys and girls expressed through songs and riddles bringing forth their imaginative and creative talent to woo their prospective bride or groom. Local brew like '*handia*' and other condiments flow free during such festivities. Their body language speaks of their simplicity in the nature's hub of life style. In ancient centres song with dances are accomplished with their eternal enjoyments *Dalkhai* and other forms of Sambalpuri folk dances like *Humo* and songs like *Rasharkeli*, *Sajani* and *Maylajada* too are very popular forms of folk performance in this district.

Some other performances considered more urban are the *Ramaleela*, *Pala* and *Dash Kathia* which are performed occasionally by both local and invited troupes from other parts of Odisha. These performances are largely based on *puranic* tales and are normally in Odia with quotes from classical

and medieval Odia literature and even Sanskrit text. There was a Ramaleela Party in Barapali Sahi of Deogarh town known for its commendable colourful performance during of Rama Navami at Gopalji Temple premises. Of late, traditional and folk performances are becoming rarer due to proliferation of other electronic media more so television. Another general of performance that has made incursions into the rural and semi-urban areas of Deogarh district is the mobile *jatra* or 'opera' parties, who come from the coastal districts and perform by shifting camp from location to location during festive season. Their performances do not relate to tradition and culture either of the area and are imitation of dramatic television serials or commercial films.

Deogarh originally being a land of multiple tribes has many tribal deities though they have no designated temples for them. At some places some semblance of a crude shrine like structure may there; but at most of the places some totem-like poles or rock pillars represent the deities. Mahabhairabi, Rambhadebi and Jangha Linga , Bada Deo are such tribal deities of the tribes of Deogarh. Mahabhairabi is the supreme deity of the Kandhas, the primitive inhabitants of Deogarh. Similarly Rambhadebi is the clan goddess of the Bhuyan. Rambhadebi is considered as the younger sister of Mahabhairabi. This is the theological reason for the Kandha-Bhuyan brotherhood. Jangha Linga and Bada Deo are the gods of the Gonds. They claim JanghaLinga and Bada Deo as the early form of Lord Jagannath and Balabhadra. Bisri Puja is the most popular among Paudi Bhuyans. Goddess Samaleswari of village Bhatsingh is a mysterious one being a statue of a couple unlike that of Sambalpur. One of its accompanying and auxiliary deities like Pitabali resembles a Budhhist statute. Maa Hingula of Jarachhat village is being worshiped like that of Talcher. Maa Sannipat of erstwhile Naikul is the supreme deity of the Paikas or militia of the former Bamanda state. During the later part of Budhhist period the Tantric Cult was in vogue. The impact of such tantric cult is still observed in many rituals. Then the Somavanshi rajas had suzerainty over this region and as result of it there are many Shaiva pithas in this district. The Shiva Temples of Banakalo, Jhadeswar and Pradhanpat were built in later period by the Ganga rulers. Tribes like Munda, Oram, Ho and Santhals worship their own clan or community gods. Further, each village has it Gramashiri, the guardian angel of the village. In some places Giri Puja (worship to the hills) are done also, indicating the people's affinity to nature and dependence on forest.

There are many festivals centring on agriculture, various occupations, children etc. *Akshi Truitya*, *Kadobali Puja*, *Muthi Anukul*, *Nuakhai* are festivals relating to several stages of agricultural operations and farming practices like initiating tilling of soil, sowing of paddy, *beushana*, harvesting, etc. Paddy being the staple crop is symbolic of the Mahalakshmi, the goddess of wealth. In the month of *Margasira* (December-January)

generally, paddy ripens for harvesting and on each Thursday of the month, pooja being celebrated which is common practice all over Odisha among the Hindus irrespective of caste i.e, Mahalakshmi puja in each household. Deogarh is no exception to this common tradition. The village craftsman worship lord Biswakarma. The trading castes like Thuria observe Boita bandana. Prathamastami, Satya pir (pala) puja for the good fortune of the young, particularly children of a family or community. *Raksha Bandhan* is being observed among higher caste Hindus migrated from other parts of the state and country which has got assimilated with the larger society of Deogarh.

Makara Sankranti is a tribal festival celebrated with great fervour among the Santhals, as Tusu parva is now got into the cultural calendar of other tribes too and has turned into one of the major festivals of the district. In *Gahma Purnima, Chhad khai, Pousa Purnima*, etc sharing of sweetmeat and meat at community level is a common practice. Observance of *Anla Nabami* is confined to Deogarh town. Among other prominent festivals are *Ratha Yatra, Chandan Yatra, Holi, Dola, Pana Sankranti, Dashahara*, etc. The girls observe *Khudurukuni* and Pousa Rabibara Osha. Recently the ladies have started Mahamayee Pooja in each Sahi/pada/village.

The Christians observe Good Friday, Easter Sunday and above all Christmas popularly known as *Badadina Parba*. The Muslims celebrate Ramjan, Id-ul- Fitr, and Id-ud-Zoha with feast and pageantry and observe Muharrum mournfully. Even though the Sikhs are very few in number, they celebrate Baishakhi and Guru Parav on the occasion of Guru Nanak's birth anniversary on the full moon day of the Hindu month of Kartik (November-December of the Gregorian calendar).

The table below are indicative of various fairs and festivals and there locations in Deogarh district.

Sl. No.	Name of Temple / Place	Location
1.	Pradhanpat Waterfall, Basanta Nivas, Pradhanapateswari and Champakeswar Temple, Giri Gobardhan Temple.	Pradhanpat, Deogarh Town
2.	Jhadeswar Temple	Deogarh Town
3.	Kurodkot Waterfall	Deogarh Town
4.	Sri Ram Gopalji Mandir	Deogarh Town
5.	Gopikishore Temple	Deogarh Town
6.	Gokarneswar Temple	Deogarh Town
7.	Maa Gayatri Temple	Deogarh Town
8.	Biswasrastha Gathan Bhawan	Deogarh Town
9.	Shani Mandir	Deogarh Town
10.	Sri Jagannath Temple	Purunagarh
11.	Sri Pancha mukhi Hanuman Temple near Olat bata	Purunagarh
12.	Indira Gandhi and Indoor Satdium	Purunagarh
13.	Sabha Gruha	Deogarh Town
14.	Bhairabi Mandir	Ballam
15.	Banakallo Shiva Mandir	Ballam

16.	Maa Saranipat Mandir	Bijaynagar
17.	Rambhadebi Shrine	Barkote
18.	Rambhadebi Shrina	Suguda
19.	Mahadeb Temple	Barkote
20.	Thakurani Pitha	Basalai
21.	Basudebeswar Temple	Basudebpur Shasan
22.	Kataswar Temple	Rengalpali
23.	Kailash Shiva Mandir	Kailash
24.	Premananda Ashram	Rengalpali
25.	Narmadeswar Temple	Kalkath
26.	Sri Jagannath Mandir	Reamal
27.	Sri Jagannath Mandir	Kendejjuri
28.	Sri Jagannath Mandir	Kansar
29.	Sri Radhakrushna Mandir	Tainsar

Month and period-wise details of fairs and festivals are given in the following table.

Sl. No.	Name of Fair/ Festivals	Place	Period
01.	Utsav Pradhanpat	Deogarh Town	January, February
02.	Shiva Ratri	Deogarh, Purunagarh, Ballam, and other Shiva Mandir	February, March
03.	Ratha Yatra	Purunagarh, Barkote	June / July
04.	Ganesh Mela	Deogarh Town and all Educational Institutions	August, September
05.	Rambhadebi Yatra	Suguda and Barkote	May/ June
06.	Chandan Yatra	Kalla	April/ May
07.	Durga Puja	Deogarh / Ballam	October
08.	Lakshmipuja	Kandhal and in many villages	October
09.	Bada Osha	In many villages	Nov/ Dec.
10.	Anla Navami	Deogarh Jhadeswar Temple	November
11.	Good Friday and X-Mas	Deogarh Town	
12.	Id-ul-juha, Id-ul-fitre and Ramjan	Deogarh Town	
13.	Karama	Deogarh Town	
14.	Bishwakarma Puja	Deogarh Town	
15.	Rahas Jatra (Magha Purnima)	Tainsar	January / February
16.	Makar Jatra	Tala Vitiria Sahi	January, February
17.	Dola Purnima	Vitiria Sahi	February/ March
18.	Dola Purnima	Purunagarh	February / March
19.	Kali Puja	Barkote	October

## Migration, Displacement and Rehabilitation

Other than the indigenous tribes, majority of the people have migrated to this district in past due to various reasons. There are several denominations of Bramhins in the districts. The Utkaliya Brahmins were brought by the King from Jajpur and other coastal districts which were known as Utkal and thus the nomenclature. A copper plate grant is cited as a historical evidence of this fact. There are also several Aranyak Brahmins colloquially known as Jhadua Bramhins who have preponderance in

Western Odisha. The King had brought some *Karana* (almost analogous to Kayastha) and *paikas*, a warrior class from the coastal area for his services and warfare respectively. *Chasa* the major caste of the district are migrant from the nearby Angul and Dhenkanal districts during early reign of the Ganga dynasty of erstwhile Bamanda state. The *Agharias* were also brought by the King in the past but their place origin remains almost obscure with no certain being accepted as historically of These Agharias and Chasas were brought by the King for the development of agriculture through improved agricultural practice as they were adept at that and were laborious. Some of the Chasas who carry the surname or honorific like Dalbehera, Nayak and Gadanayaka were being engaged as reserve soldiers to supplement the regular forces at times of war and strife. The Gonds, a dominant and valorous tribe have also gradually migrated from nearby Sambalpur regions in the past and used to hold *jagirs* and *gountis* and were petty landlords. Majority of the Ho, Oram, Munda and Khadia tribes have migrated into the district during post-independence period from the Chhota Nagpur region and nearby Sundargarh district due to mining activities in the adjoining areas. Some of them have also come to Deogarh being displaced by Rourkela Steel Plant and Mandira Dam. Some *Kultas* have migrated into Deogarh district during the late fifties of the last century because of submergence of their villages in the Hirakud Dam water reservoir.

Displacement due to Rengali Dam and Gohira Dam of this district in the eighties and nineties of the last century had major impact in almost every sphere of public life. Near about twelve thousand joint families got displaced in these dams. The Gogua Reserve forest got submerged. Forests were cleared off to settle all these displaced persons. Many of them migrated out to the nearby Sambalpur, Angul and Sundargarh districts. Since 1973 when at village Rengali of the then Dhenkanal district the project work of the Rengali Dam over the river Bramhani started, people's movement and agitation started opposing of the proposed dam. A faction of the leaders of the movement had demanded 'land for land' as a scheme of rehabilitation. But the government considered rehabilitation the landless with the policy 'land to even the landless', which was unique rehabilitation scheme in entire country then. Six acres of land and half acres of homestead land were offered to each displaced families. The poor landless families and marginal farmers gladly accepted the rehabilitation package and the people's resistance cooled off and subsequently petered out. It was one of the popular people's movements in the state, post-independence. These two projects and massive industrialisation in the neighbouring districts impacted the demographic composition of the district including the public life and culture. Certain families who had been displaced due to Hirakud Dam Project and the Rourkela Steel Plant construction and settled in Naikul Block of Deogarh on the Bramhani basin got displaced again due to the Rengali

Dam Project. This double displacement became a matter of much discussion then and the number of families though not large in number had to bear the brunt of restarting their hearth and home against several odds.

Such large scale rehabilitation caused serious loss to the biodiversity of the onetime famous Bamanda Forest. Due to the Forest Conservation Act, 1980 most of those newly rehabilitated families faced immense hurdles in getting record of rights of their age-old agricultural land. Subsequently large number of tribal families got their titles to such forest lands under the Forest Rights Act of 2006. Still there are several families yet to get their possession recognized under law. The economy of this district was based on forest produce and traditional agriculture. Due to large scale displacement and rehabilitation, vast tract of fertile lands of Naikul Block got submerged and dense forest resources got depleted causing crisis in livelihood and more pressure on surviving forest resources. People have taken care of the situation by forming forest protection groups in each village. Many youths have been migrating in search of work to the nearby districts as well as to other states as far as Gujrat and Tamil Nadu.

### **Urbanization and Emerging Issues**

Deogarh Municipality is the only urban local self-government body in the district. Though Deogarh town was known to be a planned town during the early part of twentieth century, now it is growing in a half hazard manner now without any structured town plan. Deogarh Town is on a small valley in between two hill ranges having two Reserved Forests. Ground Water coming through Pradhanpat Waterfall was the chief source of drinking water for the urban dwellers. Due to diminishing water streams, some projects have been undertaken in the town to exploit the ground water. But the Ground Water Table is depleting fast. It is planned to bring water from the Reservoir of Rengali Dam to Deogarh to meet the growing need of water. The drainage system and roads of the town are old and insufficient to meet the present needs and require renovation and up-gradation.

Ranchi-Vijayawada Special Highway and National Highway No-200 along with NH-49 have passed through this tiny Town. Deogarh Town is unique for having two water falls in a town within a distance of one kilometre being surrounded by two Reserve Forests with top mountains and rich biodiversities. Thus it has a lot of scope for tourism, more so eco-tourism and adventure tourism.

## CHAPTER-V

# AGRICULTURE AND IRRIGATION

### Physiographic and Agro-Climatic Condition

Deogarh district is endowed with dense forests, mountain ranges, hills, hillocks, rivers, waterfalls, numerous natural streams and beautiful valleys with fertile soil. The geographical sequence ranges from 250 meters to 700 meters in height from the Mean Sea Level (MSL), harbouring a vast range of flora and fauna.

There are a total of 875 villages in the District, of which 711 are inhabited and 164 are uninhabited. The entire district has 58324 households out of which 53984 households comprising 92.56 percent are in rural areas and only 4331 which constitute 7.4 percent of the total households are in urban areas. Agriculture is the prime occupation of the people as there is no industry or any other avenue of gainful employment other than some small trade and services. The percentage of main workers to the total population of the district is 25.5 and percentage of cultivators to total main workers is 45.12. Similarly, workers belonging to agriculture and non-agriculture sectors constitute 65.66 percent and 34.34 percent respectively.

The entire district comes under North-Western plateau zone and belongs to one agro ecological formation of low rainfall lateritic soil. The table below describes the variation in different agro-ecological parameters across three blocks of the District.

Agro-Climatic Zone	Agro-Ecological Situation	Blocks	Area in (hect.)	Soil Type
North- Western Plateau	Low- Rainfall lateritic soil	Barkote	61.334	Red sandy, Sandy loam
		Reamal	72.264	Black, Red, Sandy, Sandy loam
		Tileibani	52.67	Red sandy, Sandy loam

### Agro-ecological Situation (AES) in Deogarh

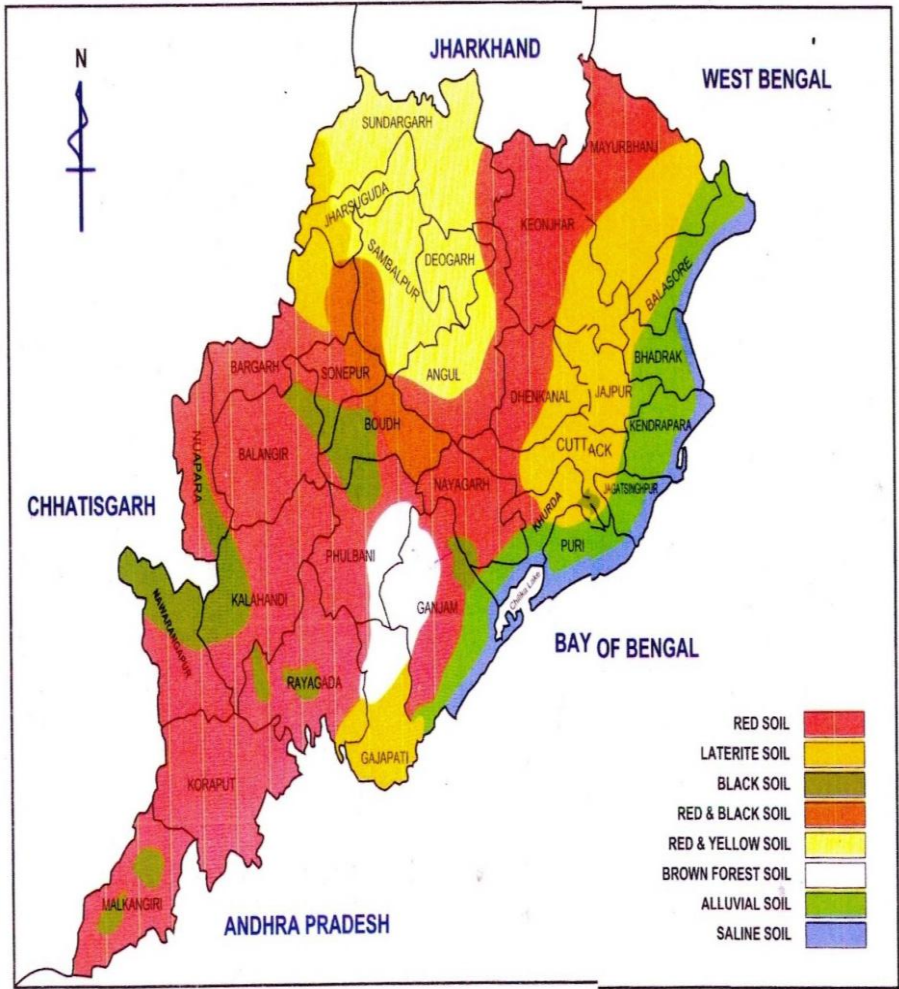
The climate of the district is characterized by a very hot dry summer and erratic distribution of rains by the South-West monsoon. Prolonged winter commencing from late November and lasting up to late February prevails in the district. The mean maximum and mean minimum temperature of the District are 32.7 ° C and 19.25° C respectively. The normal rainfall of the district is 1582.5 mm against the state average of 1451. 2 mm.

### Soil

In the State of Odisha, 8 types of soils have been identified out of which Mixed Red and Yellow soil (shown in the accompanying map) is

predominant occurred in Deogarh District. Some portion of Barkote Block adjoining Angul District has Red Soil pockets. The Soils are characteristically Reddish Yellow to Yellowish Brown. In general, soils are well drained. Mixed Red and Yellow soils occur as catenaric association in undulating and rolling terrains which differ in depth, texture and colour. The soils are moderately shallow in depth and coarse textured. The upland soils are shallower and lighter in texture than the low land soils. Presence of ferruginous concretions and fluctuation of water table imparts mixed red and yellow colour to the soil. The upland soils are moderately acidic where as lowlands are slightly acidic in nature. Mainly colluvial deposits form the low land soils. Soil acidity can be corrected through liming.

**Map showing types of soil in Odisha**





## Nature and Type of Soil and Fertility

As regards type of soil, there exists less variation between Barkote and Tileibani blocks except that a larger portion of alluvial soil occur in Barkote block on the embankment areas of Brahmani river which covers the backwater area of Rengali Dam. However, the soil of Reamal block contain much variation as compared to the other two blocks with the presence of about 02 percent typical black soil.

### Information on soil of the District and their block-wise distribution (Area is in hectare)

Sl. No.	Block	Black Soil		Red Soil		Sandy Soil		Sandy loam		Others	
		Area	percent	Area	percent	Area	Percent	Area	percent	Area	percent
01	Barkote	-	-	29440	48	6133	10	21467	35	4294	7
02	Reamal	1445	2	28906	40	5781	8	22402	31	13730	14
03	Tileibani	-	-	27391	52	4214	8	14748	28	6321	12

### Details of type of soils pre-dominant in the District

**Black Soil:** This soil is found in Budido, Dharampur, Dhauragoth, Reamal, Nauliapada area of Reamal block which contains liberal amount of organic matter. On this type of soil during Kharif season paddy is cultivated. Onion and other vegetables are grown during the Rabi season under irrigated condition. Cereals like mung and gram are grown as non-irrigated Rabi crops.

**Red Soil:** This soil is found extensively in all the three blocks of the district. Mostly paddy and crops other than paddy are grown in this type of soil.

**Sandy Soil:** This soil is prevalent in high lying 'Att' and 'Mal' land, and is dependent on rainfall. The soil is coarse and contains low organic matter. Sand is found to a considerable measure in such soil and ground nut along with minor pulses are grown. Att lands are used for crops which are less dependent on moisture. This type of soil is predominant in all the three blocks of the district.

**Sandy Loam Soil:** This type of soil is available in all three blocks of the district and is found in most of the *Berna* and *Bahal* land of the cultivated track.

Soil test results reveal that soils of Barkote and Tileibani block are mainly acidic. The block wise reaction and fetidity status of the cultivated area is indicated below.

Sl No	Block	Acidic	Netural	Electronic Conductivity	Organic Carbon	Phosphors	Potash
1	Barkote	66.89percent	24.82 percent	8.27 percent	2.8(H)	1.71(MI)	1.18(L)
2	Reamal	34.07percent	39.84 percent	26.07 percent	1.69(M)	1.83(MI)	2.6(H)
3	Tileibani	67.18percent	25.36 percent	7.45 percent	2.8(H)	1.59(MI)	2.4(MI)

## Land Utilisation Pattern in the District

Deogarh District comes under North western plateau of Agro-climatic zone. The climate condition is hot and moist sub-humid. During-2002-03 the mean annual rainfall was 1582.5 mm, mean maximum summer temp was 38.0<sup>o</sup>c mean minimum winter temp 15.0<sup>o</sup>c. Broadly soil groups are red and reddish yellow.

The Geographical area of the district is 2,94,000 hect. The following chart gives sector-wise distribution and utilisation of the total land area.

Forest area	1,56,000 hect.
Miscellaneous tree and groves	9,000 hect.
Permanent pasture	8'000 hect.
Cultivable waste Land	5,000 hect.
Land put to non-Agriculture	14,000 hect.
Barren and un-cultivable land	2,000 hect.
Current and other Fallow land	17,000 hect.
Cultivable Land	16,000 hect.
Net area sown	67,000 hect.
<b>Total</b>	<b>2,94,000 hect.</b>
Gross Cropped Area	94,207 hect.
Net Cropped Area	67,000 hect.
Cropping intensity	140.61 percent

Gross cropped area is 94,207 hect, out of which area under fruits was 5.400 hect. Of the total geographical area cultivated area is 66,945 hect rounded off to 67000 hect which is 27.8% of the total area. Paddy is cultivated in 34, 500 hect or 51.53 percent of total cultivated area. Non-paddy along with horticultural crops are cultivated in the residual farmland i.e. 32,445 hect or 48.47 percent area.

The details of area under crops, production and yield in the district and blocks is presented in the following Table.

**Block wise Area, Production and Yield of different crops for Kharif of Deogarh District**

Sl. No.	Crops	Area (hect.)	Tilebani Production (qtls.)	Yield (qtls./hect.)
1	HYV Rice (clean)	12.430	4.97.449	40.02
2	Local Rice (clean)	40	926	23.16
	<b>Total Rice (clean):-</b>	<b>12.470</b>	<b>4.98.375</b>	
3	HYV Maize	360	6.653	18.48
4	Local Maize	3	32	10.72
	<b>Total Maize:-</b>	<b>363</b>	<b>6.685</b>	
5	HYV Jawar	4	34	8.40
6	Ragi	2	11	5.72
7	Small Millets	-		
	<b>Total Millets:-</b>	<b>6</b>	<b>45</b>	
	<b>Total Cereals</b>	<b>12.839</b>	<b>5.05.105</b>	
8	Arhar	400	2.628	6.57
9	Green gram	1.650	5.280	3.20
10	Black gram	1.819	6.585	3.62
11	Kulthya	190	745	3.92
12	Cowpea	140	538	3.84
	<b>Total Pulses:-</b>	<b>4.199</b>	<b>15.775</b>	
	<b>Total Food grains:-</b>	<b>17.038</b>	<b>5.20.880</b>	
13	Groundnut	430	6.158	14.32
14	Til	2.195	9.921	4.52
15	Castor	1	5	4.80
16	Sunflower	-		
	<b>Total Oilseeds:-</b>	<b>2.626</b>	<b>16.084</b>	
17	Mesta	81		
18	Sun hemp	12		
	<b>Total Fibre:-</b>	<b>93</b>		
19	Sweet potato	120	7.555	62.96
20	Vegetables	1.360	1.12.363	82.62
	<b>Total Vegetables:-</b>	<b>1.480</b>	<b>1.19.918</b>	
21	Chilli	410	4.633	11.30
22	Ginger	70	4.530	64.72
23	Turmeric	85	2.103	24.74
	<b>Total Condiments:-</b>	<b>565</b>	<b>11.266</b>	
25	Sugarcane	24		
	<b>Grand Total:-</b>	<b>21.824</b>		
Sl. No.	Crops	Area (hect.)	Barkote Production (qtls.)	Yield (qtls./hect.)
1	HYV Rice (clean)	9.350	3.34.263	35.75
2	Local Rice (clean)	30	864	28.79
	<b>Total Rice (clean):-</b>	<b>9.380</b>	<b>3.35.126</b>	
3	HYV Maize	398	7.451	18.72
4	Local Maize	5	52	10.43
	<b>Total Maize:-</b>	<b>403</b>	<b>7.503</b>	
5	HYV Jawar	2	17	8.35
6	Ragi	1	6	5.73
7	Small Millets	-		
	<b>Total Millets:-</b>	<b>3</b>		
	<b>Total Cereals</b>	<b>9.786</b>	<b>3.42.629</b>	
8	Arhar	360	2.344	6.51
9	Green gram	2.500	8.125	3.25
10	Black gram	2.005	7.218	3.60

11	Kulthy	140	545	3.89
12	Cowpea	150	569	3.79
	<b>Total Pulses:-</b>	<b>5.155</b>	<b>18.800</b>	
	<b>Total Food grains:-</b>	<b>14.941</b>	<b>3.61.429</b>	
13	Groundnut	565	8.108	14.35
14	Til	3.164	14.523	4.59
15	Castor	1	5	4.76
16	Sunflower	-	-	
	<b>Total Oilseeds:-</b>	<b>3.730</b>	<b>22.635</b>	
17	Mesta	72		
18	Sun hemp	12		
	<b>Total Fibre:-</b>	<b>84</b>		
19	Sweet potato	80	5.034	62.93
20	Vegetables	1.430	1.18.104	82.59
	<b>Total Vegetables:-</b>	<b>1.510</b>	<b>1.23.138</b>	
21	Chilli	435	4.924	11.32
22	Ginger	95	6.147	64.70
23	Turmeric	95	2.346	24.69
	<b>Total Condiments:-</b>	<b>625</b>	<b>13.416</b>	
25	Sugarcane	32		
	<b>Grand Total:-</b>	<b>20.922</b>		

Sl. No.	Crops	Area (hect.)	Production (qtls.)	Yield (qtls./hect.)
1	HYV Rice (clean)	12.600	4.64.310	36.85
2	Local Rice (clean)	50	1.527	30.54
	<b>Total Rice (clean):-</b>	<b>12.650</b>	<b>4.65.837</b>	
3	HYV Maize	440	8.162	18.55
4	Local Maize	5	53	10.61
	<b>Total Maize:-</b>	<b>145</b>	<b>8.215</b>	
5	HYV Jawar	2	17	8.49
6	Ragi	2	11	5.71
7	Small Millets	-		
	<b>Total Millets:-</b>	<b>4</b>	<b>28</b>	
	<b>Total Cereals</b>	<b>13.099</b>	<b>4.74.080</b>	
8	Arhar	450	2.979	6.62
9	Green gram	2.570	8.301	3.23
10	Black gram	2.636	9.384	3.56
11	Kulthy	210	827	3.94
12	Cowpea	155	591	3.81
	<b>Total Pulses:-</b>	<b>6.021</b>	<b>22.082</b>	
	<b>Total Food grains:-</b>	<b>19.120</b>	<b>4.96.163</b>	
13	Groundnut	445	6.368	14.31
14	Til	2.506	11.528	4.60
15	Castor	-	-	
16	Sunflower	-	-	
	<b>Total Oilseeds:-</b>	<b>2.951</b>	<b>17.896</b>	
17	Mesta	82		
18	Sun hemp	16		
	<b>Total Fibre:-</b>	<b>98</b>		
19	Sweet potato	95	5.976	62.90
20	Vegetables	1.439	1.18.861	82.60
	<b>Total Vegetables:-</b>	<b>1.534</b>	<b>1.24.837</b>	
21	Chilli	235	2.667	11.35
22	Ginger	125	8.089	64.71
23	Turmeric	100	2.472	24.72
	<b>Total Condiments:-</b>	<b>460</b>	<b>13.228</b>	
25	Sugarcane	34		
	<b>Grand Total:-</b>	<b>24.199</b>		

Sl. No.	Crops	District Total		
		Area (hect.)	Production (qtls.)	Yield (qtls./hect.)
1	HYV Rice (clean)	34,380	12,96,021	37.7
2	Local Rice (clean)	120	3,317	27.6
	Total Rice (clean):-	34,500	12,99,338	
3	HYV Maize	1,198	22,265	18.6
4	Local Maize	13	137	10.6
	Total Maize:-	1,211	22,403	18.50
5	HYV Jawar	8	67	8.4
6	Ragi	5	29	5.7
7	Small Millets			
	Total Millets:-	86	96	
	Total Cereals	35,797	13,21,837	
8	Arhar	1,210	7,951	6.6
9	Green gram	6,720	21,706	3.2
10	Black gram	6,460	23,187	3.6
11	Kulthy	540	2,117	3.9
12	Cowpea	445	1,697	3.8
	Total Pulses:-	15,375	56,657	0.79
	Total Food grains:-	52,072	13,78,494	
13	Groundnut	1,440	20,633	14.3
14	Til	7,865	35,972	4.6
15	Castor			
16	Sunflower			
	Total Oilseeds:-	9,305	56,605	
17	Mesta	235		
18	Sun hemp	40		
	Total Fibre:-	275		
19	Sweet potato	295	18,565	62.9
20	Vegetables	4,229	3,49,328	82.6
	Total Vegetables:-	4,524	3,67,893	
21	Chilli	1,080	12,224	11.3
22	Ginger	290	18,766	64.7
23	Turmeric	280	6,920	24.7
	Total Condiments:-	1,650	37,911	22.98
25	Sugarcane	90		
	Grand Total:-	66,945		

The table makes interesting reading. Paddy is the principal crop in the district followed by green gram and black gram. In the cereals group maize is the other important crop. In addition to these, arhar, kulthi and cow pea are the other pulses which are grown in the district. In the non-foodgrains category, til and groundnut are important among oilseeds, and vegetables and chilli are the other non-foodgrain crops. Broadly speaking, cereals account for 53.47 per cent, pulses 22.97 per cent, oilseeds 13.90 per cent, vegetables 6.76 per cent, condiments 2.46 per cent and others 0.04 per cent of net sown area. This means that food grains have a lion's share of 76.44 per cent of net sown area and hence the cropping pattern in the district, as elsewhere in the state, is dominated by foodgrains.

## **Diversification, Cropping Pattern and Crop Rotation**

Crop diversification is governed mostly by price fluctuations in market, change in food habit, availability of high value, efficient cropping technology and above all weather aberrations.

There is need for adopting rotational cropping pattern. This is because it will help in 1. Mitigating the ill effects of aberrant weather, 2. Enhancing income on small farm holding by inclusion of high value crops or cropping systems, 3. Withstanding price fluctuation, 4. Alleviating hungers and malnutrition, 5. Employment generation, 6. Ensuring constant flow of income, 7. Mitigating the problem arising due to monoculture, 8. Conservation of natural resources, 9. Meeting family need and future food demand, 10. Effective recycling of farm by products and 11. Intercropping and innovative cropping practices.

In rain-fed area of high, medium and low land area farmers grow single crop except in residual moisture situation in some of the medium and low land area where farmers usually grow short duration non- paddy crops like pulses, oilseeds (mustard) and pyra crop like field peas, birhi, etc. In irrigation-potential areas farmers grow multiple crops during both the season of the year. Principal crops during Kharif season is paddy, followed by pulses, oil seeds, vegetables during Rabi season.

When irrigation is assured with organised extension work, farmers are usually taking up multiple cropping. Introduction of improved agricultural practices and short duration high yielding varieties have provided opportunities for multiple cropping. Farmers are growing even three crops in irrigated area.

During Kharif Hybrid Paddy is mostly grown along with other varieties of paddy over an area of 34,500 ha. other crops like Maize, Millets, Pulses, Oilseeds and some fibres are also grown. During Rabi an area of 2000 ha is covered under Hybrid Paddy. Wheat, pulses, vegetables and condiments are also grown

The following crop rotations are usually adopted by the farmers in Deogarh district.

- 1) *Att Land*:- Ground nut- Potato- Vegetable; Mung- Hybrid Maize- Pumpkin; Mung- Cauliflower- Pumpkin
- 2) *Mal Land*- Paddy- Potato, Summer Til; Paddy- Pulses- Ground Nut, Summer Vegetable; Early Paddy- Wheat

- 3) *Berna* Land- Early Paddy- Wheat; Paddy-Pulses, Field pea/ Mung, Gram; Paddy- Dalua paddy
- 4) *Bahal* Land- Paddy- Field Pea; Paddy- Dalua paddy.

### **Agricultural Technology**

For higher production of crops, better agricultural technologies are required for the farmers. To disseminate the technologies Agriculture Department has launched different schemes like NFSM (National Food Security Mission) for Rice and Pulse crops, RKVY (Rastriya Krushi Vikash Yojana), State Plan, NMOOP (National Mission on Oilseed and Oil Palm) for oilseeds like groundnut, mustard, sunflower crops and Extension Reforms through Agriculture Technology Management Agency (ATMA).

The main objectives of operating the above schemes for the farmers are to provide better scientific technologies for higher production of different crops during Kharif and Rabi season. Following are the methods of providing these technologies to the farmers.

**Demonstration:-** Block Demonstration, Distribution of Mini kits, Trial cultivation in compact Patches which covers line sowing, line transplanting, Integrated Nutrient Management (INM), Integrated Pest Management (IPM), Plant Protection Management, etc. are being undertaken at the grass root level.

**Training to the farmer:-** Training is organized at village, block and district levels to train farmers for improving their capacity and broaden outlook to bring about remarkable changes in agricultural practices adopted by them.

**Exposure visit of Farmers:-** Exposure visit are organized by the Department for farmers:-

- i) Inside the Block
- ii) Inside the District
- iii) Inside the state
- iv) Outside the state

The Government has popularised the 'laboratory to land' practices where by knowledge and technology in agriculture are transferred to the farmers to help further development in agriculture. Farm Information and Advisory Centre (FIAC) is functioning at the block level under Extension Reforms scheme of Agricultural Technologic Management Agency (ATMA) which is a centrally sponsored scheme. This Scheme works with all the agriculture and allied departments and the basic need of the farmers for

agriculture and allied Sector which is a bottom- up approach. There are various committees i.e. Gram Krushak Mancha, (GKM) at the village level, (FIAC) at block level, and (ATMA) at District Level. Agricultural Technologic Management Agency. At GP Level there are Two progressive / Innovative farmers at the Gram Panchayat level are engaged as Krushaka Sathi or Krushak Bandhu to provide 24 hrs service to the farmers.

### **Use of Agricultural Implements**

The Department of Agriculture under different subsidised schemes is facilitating procurement of farm machinery and equipments to the all categories of farmers. Financial assistance is provided and subsidies are provided to induce the farmers for adoption of mechanised farm practices.

In the case of Tractors, the subsidy amount is 50 percent of the cost limited to Rs. 90.000/- up to 40 PTO HP. For Power Tillers of 8 BHP and above subsidy is given @ 50 percent of the cost, limited to Rs. 75.000/- and for lightweight power tiller below 8 BHP for hilly regions the subsidy component is 50 percent of the cost limited to Rs. 40.000/-.

### **Mechanization in paddy cultivation – a step towards cost and time effectiveness**

Due to fluctuation of climate, scarcity of labour force, high cost input and engagement of multifarious activities in farming sector, farm mechanization is the only possible solution to achieve the targeted production and productivity. Therefore rice, being the staple food, occupies the largest acreage i.e. 53 percent of Kharif cultivated area and 37 percent of total annual gross crop area. Mechanization in paddy cultivation has picked up in Deogarh district through repeated demonstration and farmers' awareness trainings by KVK. Based on the interventions different demonstrations and testing of paddy implements such as pedal and power operated paddy thresher, fertilizer broadcaster, cono weeder, pre-germinated paddy seeder, rice transplanter, paddy reaper, power sprayer, bullock drawn puddler and power SRI weeder are being organized in farmers' field to increase the present level of production and productivity with timeliness of operation. The experiments suggests that around 10 to 87 percent cost and 20 to 98 percent time will be saved by using those implements in paddy cultivation.



Sl. No.	Conventional	Labour (man-days/ha)	Intervention	Labour (man-days/ha)	Cost savings (percent)	Labour Savings (percent)
1.	Hand beating	13	Pedal operated paddy thresher	5	10	61
2.	Bullock treading	3	Power operated paddy thresher	0.2	25	82
3.	Manual broadcasting	0.5	Fertilizer broadcaster	0.15	69	73
4.	Manual	25	Cono weeder	8.75	36	65
5.	Manual	38	Pre-germinated paddy seeder	2.1	87	95
6.	Manual	38	Rice transplanter	2.3	41	94
7.	Bullock drawn plough	5	Bullock drawn puddler	4	30	20
8.	Knapsack sprayer	5	Power sprayer	0.5	35	90
9.	Manual	35	Paddy reaper	0.6	73	98
10.	Mandwa weeder	8.4	Power SRI weeder	1	34	90
11.	Cultivator	0.3	Rotavator	0.25	21	16
12.	Tractor treading	0.4	Axial flow thresher	0.08	32	80

## Resource Conservation Technology

About 30 percent of the Kharif cultivated area of the district is irrigated and the rest 70 percent is rain fed. Out of the total 17,630 ha of Kharif irrigated area of the district, contribution of the lone medium irrigation project of Gohira is 8,164 ha which is about 44 percent of actual area irrigated by all sources taken together. Contribution of other sources of irrigation to the total is 19 percent by minor irrigation, 14 percent by Water Harvesting Structure, 9 percent by dug well/bore well, 6 percent by lift irrigation points, 2 percent by pond/tank and the rest 6 percent by other sources like river, water streams, etc. Periodic variations occur in the area under irrigation due to fluctuation in storage of water in the medium and minor irrigation projects which depend on rainfall. The actual average rain-fall of the district was recorded as 1014.2 millimetre. About 80 to 90percent of average annual rainfall of 1014.2 millimetre in Deogarh district is received within 3 months of monsoon period resulting in flash floods with severe soil erosion and frequent droughts. Hence, there is a need to manage the soil and water by adopting Resource Conservation Technology to reduce the impact of moisture stress and obtain sustainability in agricultural production. In view of the above facts, KVK, Deogarh has undertaken some works on resource conservation technology such as drip irrigation in litchi, mulching in litchi, micro sprinkler in tomato, mulching in tomato with an aim to conserve soil and water with increasing productivity.

Technologies demonstrated	Demonstrated			Local check			percent increase in yield (q/ha)
	yield (q/ha)	Net Income (Rs./ha)	Benefit Cost ratio	yield (q/ha)	Net Income (Rs./ha)	Benefit Cost ratio	
Plastic mulching in tomato	322	86,300	3.03	224	56,800	2.73	43.7
Plastic mulching in litchi	65	1,44,445	2.25	42	71450	1.74	55
Drip irrigation in litchi	89.5	1,59,000	2.32	62.5	92500	1.88	43.2
Micro sprinkler in tomato	288	93,500	2.95	214	58,600	2.54	34.5

## Soil testing

Soil testing is vital for soil health management. Soil testing is required to determine acidity and alkalinity of the soil and to assess the nutrient contents such as nitrogen, organic carbon, phosphorus, potash and micronutrient, etc. Earlier soil testing for farmers of Deogarh district was being done at Sambalpur soil testing laboratory. A separate soil testing laboratory has been sanctioned for Deogarh district in 2015 to function under the supervision of the Deputy Director of Agriculture.

Soil sample are collected from the farmers' fields with size of 0.250 Kg to 0.500 Kg each and tested in the soil testing laboratory for which farmers have pay a nominal fee of Rs. 5/- (Five Rupees) only for each soil sample. After analysis of the same soil samples, farmers are being provided a soil health card which reports the required information for soil pH and nutrient status of the soil. The scientific finding of the tests remain valid for three years. In a cycle of three years soil testing is required to be done as the nature of soil is likely to under go changes due to various factors. Presently Central Government has launched a project named National Project on Soil Health Management which aims at providing all the farmers of the country with soil health cards within 5 years.

## Reduction of Drudgery by adopting advanced farm implements

Women play a predominant role in agricultural production, representing 60 percent of the labour force. In Deogarh district farm women carry out all agricultural operation using minor tools and implements which are often traditional. Krishi Vigyan Kendra, Deogarh has tried to asses and popularize different gender friendly farm implements like Rotary Peg weeds, cano-weeder sunflower thresher, Hand-ridger serrated sickle, ground-nut decorticator and Maize shelter. This has brought about remarkable improvements in labour saving and reduction in drudgery. The following table presents a summary picture of the same.

Sl. No.	Implements	percent Saving labour	percent of reduction in drudgery
1.	Rotary peg weeder	36.6	36
2.	Sunflower Thresher	35	40
3.	Hand ridger	25	67
4.	Serrated sickle	15	10
5.	Groundnut decorticator	68.5	44
6.	Maize sheller	35	32

## Manures and Fertiliser

Organic manures and chemical fertilizers are highly required for better productivity of crops.

Organic manures include farm yard manure, compost, vermin-compost, green manuring, Azolla, BGA and Bio-fertiliser etc. which contain all the essential elements of plants in a lesser quantity than in organic product.

Inorganic manures include all the chemicals and fertilizers (primary, secondary and micronutrients). Primary nutrients like, Nitrogen (N), Phosphorus (P<sub>2</sub>O<sub>5</sub>), Potash (K<sub>2</sub>O), Secondary Nutrients are calcium (Ca), Magnesium (Mg), Sulphate(s), Iron (Fe), Manganese (Mn). Micronutrient or Trace elements are – Boron, Zinc, Molybdenum, cobalt, sodium, etc. Block wise fertilizer consumption (in MT) of Deogarh during Kharif and Rabi season is described in the table at Appendix-1.

### Consumption of Chemical Fertilizers

#### Nutrient wise consumption in metric tonne during the last five years

Nitrogen	1744	497	1978	520	2096	557	1854	511	2255
Phosphorous	1049	423	1077	470	1135	438	990	419	1079
Potash	349	188	593	212	325	222	361	360	340
Total	3142	1108	3648	1002	35.45	1217	3205	1290	3674
Kg/Hect.	48.6	40.25	54.68	41.4	52.96	41.95	47.88	43.6	54.88

## Horticulture

Of late, horticulture has become an important aspect of development in agriculture in Deogarh district. Various food crops are grown in the district as cash crops and the details are presented in the following table.

Sl.No.	Crop	Area in Hect.	FBA in hect.	Productivity	Production in metric 104aoi.
1.	Anola	79	17	1.900	32.30
2.	Banana	243	216	19.58	4229
3.	Citrus	459	409	11.26	4605
4.	Guava	182	162	7.75	1256
5.	Litchi	668	575	6.84	3933
6.	Mango	3146	2476	5.28	13073
7.	Papaya	31	19	27.65	252
8.	Pineapple	11	10	15.33	153
9.	Pomegranate	08	06	4.37	26
10.	Other fruits	739	667	9.91	6610

**The following table gives a summary picture of vegetable crops grown in the district**

Sl.No.	Crop	Area in Hect.	Productivity	Production
1.	Brinjal	1240	16.32	20237
2.	Cabbage	568	27.56	15654
3.	Cauliflower	204	14.82.	3023
4.	Okra	561	8.88	4982
5.	Peas	62	8.58	532
6.	Tomato	872	14.26	12435
7.	Onion	624	12.42	7750
8.	Potato	118	16.50	1947
9.	Sweet Potato	522	9.46	4938
10.	Radish	642	10.81	3087
11.	Bitter Gourd	256	9.74	2493
12.	Bottle Gourd	184	13.59	2501
13.	Beans	217	4.23	918
14.	Water melon	742	22.59	16762
15.	Muskmelon	02	16.28	33
16.	Cucumber	54	13.45	726
17.	Pointed Gourd	41	14.53	596
18.	Carrot	05	12.03	60
19.	Capsicum	12	13.59	163
20.	Mushroom	54	8.00	62
21.	Other Vegetables	2618	11.28	29531

## Commercial Fruit Varieties

**Mango:** Mango, the 'King of Fruits' of various varieties is grown abundantly in Deogarh since the days of the feudatory rulers. Among the popular varieties of mango are Baganpalli, Amrapalli, Bombay green, Fazilli, Langra, Mallika, Dasher, Totapalli, Ratna, Langra and Hemsagar. Apart from these some traditional local types of mango also are harvested from traditional mango groves of the villages.

The total area under Mango farming is 3146 hect., and the annual yield comes to around 13073 mt. Mango crop is susceptible to certain specific diseases and pests and enough care is taken to prevent the occurrence of such diseases.

**Litchi:** It is a summer crop and available only for a short period. The most grown varieties are Muzaffarpur, Mumbai and China.

Litchi is grown in Barkote and Tileibani area. The growing villages are Kantapali, Tusula, Gundeimara, Regeda, Kaidanta, of Kantapali G.P Dantaribahal, Badabahal of Dantaribahal G.P Rangamatia of Rambhei G.P Kandhal of Kandhal G.P Basalai Basalai and Asannali of Basalai G.P Kureibahal of Tainser G.P. Total area under litchi orchard is 68 hect. and the annual yield comes to around 1360 MT.

Litchi plantations are grown commonly in the hilly tracks of Barkote area and in plains of Kailash area of Tileibani block. 75 percent of the crops are being sold on or before 'Sabitri Amabasya', a festival held in Hindu households during the month of May. The average maximum summer temperature of Deogarh remains at 38<sup>0</sup> C. Occasionally it rises beyond 40<sup>0</sup>c and hampers fruits setting and Develops cracking of fruits resulting in considerable drop in yield.

**Orange:** Orange as a cash crop was introduced in a planned manner in the year 1985 at Khilaberani area of Reamal block of Deogarh district. Since then orange plantation has considerably expanded throughout the district. The most common variety of orange grown is Nagpur mandarin. It fruits two times in a year i.e *Ambe bahar* (November to January) and *Mrig bahar* (March to May). Deogarh Mandarin is another variety Developed locally in the District which has not yet been patented. Crop area is scattered in the entire district and the total area is around 70 hect. are in the villages of Reamal Block like Salarapal, Khilaberani, padmapur, Totabari of Chadheimara GP Khaliposi, Koradposi, Kundheigola, Kamarpal of Kundheigola G.P. Jharaberani and Budhapal in Budhapal GP. Total area under orange in Budhapal and Chadheimara GP of Reamal Block alone is around 60 hect. ares and the annual yield is around 5000 MT.

**Watermelon:** The ayacut area of Rengali dam project is the most preferred area for watermelon cultivation.. It is a summer crop and covers major area of Barkote and Reamal block and smaller area of Tileibani block.

Watermelon is cultivated in the Kureibahal, Basalai, Kandhal Rambhei, Dandasingha, Raitabahal, Madhyapur GPs of Barkoet block and Khilei, Gundiaposi and Tabada GPs of Reamal Block. The cultivated area in Barkote block is around 400 hect. In Reamal block it is around 200 hect. and in Tileibani area it is around 142 hect. Total annual production comes to around 16,762 MT in the district. Demand for the local watermelon seems to be decreasing as the farmers are applying excess amount of chemical pesticide and hormone to get larged sized fruits and bumper crop.



**Deogarh Litchi**



**Deogarh Orange**



**Deogarh Watermelon**



**Deogarh Mango**

**Horticulture Farms of Deogarh**

Deogarh has two of Horticultural farms, one at Deogarh and another at Barkote. Deogarh farm situated at Saratala village about 2 kms from Deogarh town was establish during 1977-78. It has an area of 44 hect. and maintains the following mother plants and Quality Plant Material (QPM).

**Mother Plants**

Mango	2037 Nos.
Litchi	255 Nos.
Orange	727 Nos.
Guava	206 Nos.

**Quality planting materials**

Mango	75000 Nos.
Litchi	5000 Nos.
Orange	20000 Nos.
Guava	5000 Nos.
Lime/ Lemon	2500 Nos.

Barkote Farm was established in 1955 at Kalla village 4 km from Barkote. Geographical Area of the farm is 6.7 hect. Following mother plants and Quality Plant Material (QPM) are available in the Barkote horticulture farm.

**Mother Plants**

Mango)	583 Nos.
Litchi	34 Nos.

**Quality planting materials**

Mango	25000 Nos.
Litchi	5000 Nos
Lime/Lemon	2500 Nos.

**Vegetables**

Remunerative vegetable crops are grown in the districts. Some of them are mentioned below.

**Paddy Straw Mushroom Cultivation**

Assessing the possibility of production of paddy straw mushroom and its market demand, Krishi Vigyan Kendra, Deogarh has taken steps to popularize this technology through OFT, FLD and trainings since inception. Several technologies like construction of shed, method of bed preparation, disinfection of mushroom shade, care and maintenance against diseases, plucking techniques and preparation of different value added product from mushroom were provided to SHGs and farm women. After being trained by KVK, scientists many of the Self Help Groups (SHGs) started cultivation of paddy straw mushroom as gainful ventures. Some of the members are

becoming master trainers for other rural women and school dropout girls. The achievements of OFTs and FLDs are given below.

Year	Village	Yield (Kg/bag)	percentage of change in yield	BENEFIT COST ratio
2007-08	Bulirai	1.8	120	2.75
2008-09	Kureibahal	2	100	2.85
2010	Akshrasila	1.8	100	3.5
2011	Kailash	1.8	100	3.0

### Oyster Mushroom Cultivation

Rising of mushroom is considered as a profitable enterprise. Krishi Vigyan Kendra, Deogarh attempted to popularize it in different villages since inception. Due to unavailability of bundle straw and longer winter, emphasis has been given for cultivation of oyster mushroom. To popularize this technology, series of interventions were undertaken through OFT, FLD and trainings. Technologies like preparation of bed, selection of quality spawn, watering and plucking techniques, and value addition of oyster mushroom were demonstrated to the farmers under technical supervision of KVK Deogarh. Many SHGs adopted this technology for income generation and nutritional securities. This technology has spread to 83 villages. The table shows the results of different FLD and OFT conducted in different villages.

Year	Village	Substrate	Yield (Kg/ha)	percentage of change in yield	Benefit Cost ratio
2007-08	Kureibahal	Paddy straw	1.5	100	4.2
2009-10	Kharamunda	Paddy straw	1.6	33.3	5.9
2009-10	Kharamunda	Mustard Stalk	1.2	100	7.05
2010-11	Akshyarsila	Paddy Straw	1.8	100	4.8
2011-12	Kailash	Paddy Straw	1.8	12.5	5.7
2011-12	Kailash	Seasmorm Stalk	1.6	-	7.1

### Other Vegetables

**Onion:** Onion is mostly cultivated in Reamal, Tileibani and Barkote area. The crop area in Reamal block is around 400 hect. In Barkote block it is 200 hect. and Tileibani Block area around 64 hect. Total production in the district is 7750 MT annually. The varieties that are grown are agrifound dark red and light red and N53.

**Tomato:** Tomato is cultivated in the district mostly during summer. It is cultivated in Sodo and Kansar area of Tileibani block. It is highly perishable and farmers face problem in disposal of the crop. They do not get good market price. This crop requires value additions by proper preservation, bottling and marketing. The total area in the district is 872 hect. and the production is 12435MT.



Plantation crops like coconut and cashew are cultivated in the district. Area and Production of Plantation Crops is given in the following table

Sl. No.	Crop	Area in Hect.	FBA	Productivity	Production
1.	Coconut	136	111	0.071	7.88
2.	Cashew	983	648	0.763	494

The following table provides information on area and Production of Spices in Deogarh district

Sl. No.	Crop	Area in Hect.	Productivity	Production
1.	Coriander	283	0.50	145
2.	Ginger	149	5.79	863
3.	Garlic	174	4.23	736
4.	Turmeric	193	5.25	1013
5.	Chilli	1686	0.99	1669
	Total	2491	16.76	4426

## Diseases and Disease Control

### Crop Diseases, Control Mechanism and Crop Protection

Diseases, pest and vermin like rats and birds cause considerable damage to crops. Damage is also caused by wild animals like boar, deer and elephant. As reported, average crop damaged by different animals, pest and diseases is as follows.

### Average Crop Loss due to several causes in Deogarh District

1.	Diseases	26 percent
2.	Insects	20 percent
3.	Weeds	33 percent
4.	Rodents and birds	7 percent
5.	Transport and processing	8 percent
6.	Stored grain pest	6 percent
	Total	100 percent

Following diseases and pests are common in paddy and non- paddy crops in Deogarh.

**Paddy:** Stem borer, Gall midge, Jassids, BPH/WBPH, Caterpillar, Swarming Caterpillar, Leaf folder, Case Worm, Blast, Brown spot, Sheath Blight, Sheath Rot, Foot Rot, BLB, Stem Rot.

**Sugarcane:** Pyrilla, Early short borer, top shot Borer, Red Rot,

**Ground Nut:** Hairy Cater pillar, Leaf Miner, Collar Rot, Tikka Disease

**Pluses:** Leaf Eating Cater Pillar, Aphids, YMV, Rust, Pod borer

**Oilseeds:** Aphids

**Wheat:** Smut Diseases, Helminthosprilium

**Potato:** Early and Late Blight, Wilting.

For management of pest and diseases, Integrated Pest Management (IPM) is required which starts from land preparation to harvesting, processing and storing of the produces. Presently Department of Agriculture started a new scheme under RKVY known as e-pest surveillance in paddy and non- paddy crops like pulses and groundnut crops during Kharif and Rabi season and the project period starts from July to November for Kharif and December to April for Rabi. The scheme aims at management of various important diseases and pest within 2-3 days of occurrence of the problem. Besides management practices of pest and diseases, proper scientific guidance are also being provided to the farmers by the Scientists of OUAT and CRRRI through internet and mobile SMS. Also department has already lunched the FARMERS PORTAL where necessary support is extended to the farmers through SMS.

### **Control of Die Back In Sweet Orange**

The disease has caused serious concerns among growers of Deogarh district. Severe mortality of twigs and plants due to die back causes yield loss about 30-40percent. Through FLD pruning experiments were conducted in village Khilabereni to determine if removal of symptomatic branches or the entire canopy (decapitation) would eliminate infected tissues and followed by spraying of Streptocyclin (0.1 g/lt) + Metalyxil mancozeb (2 g/lt) at 15 days interval from marble size. After the experiment is done it was observed that yield is increased from 245 q/ha to 312 q/ha resulting in gaining a net return of Rs. 2 lakhs.

Results	Yield (q/ha)	percent change in Yield	Parameter (percent of die back / tree)	percent change in Parameter	Net Income (Rs./ha)	Benefit Cost Ratio
FP	245		22		1,44,000	1.96
		27.3				
RP	312		6	72.7	2,09,400	2.27

### **Chemical Control of Chilli Trips**

Chilli trips is the serious pest in Deogarh district and reduces the yield upto 40 percent which feed on various plant tissues, damaged leaves may curl upward and appear distorted. Infested plants become stunted or dwarfed and leaves may detach from the stem at the petioles in some plant species. Through field level demonstration programme in village Bindipur spraying was conducted by Profenophos application @ 2 ml/litre after 45 days after transplanting and second spraying at 10 days interval followed by

a good management practices. After application of insecticides it was observed that the former was able to produce 118.5 q/ha over 6.5 q/ha in traditional practice and earned a net return of Rs.24,500/- through recommended practices.

Results	Yield (q/ha)	percent change in Yield	Parameter (percent of infestation)	percent change in Parameter	Net Income (Rs./ha)	Benefit Cost Ratio
FP	65.0	82.3	26.0	76.9	10500	1.47
RP	118.5		6.0		24500	1.69

### Control of Fruit Fly in Watermelon

The melon fruit fly, *Bactrocera cucurbitae* is distributed widely in temperate, tropical, and sub-tropical regions. It has been reported to damage 30 to 100 percent and is a major pest of cucurbitaceous fruits and vegetables. In context of the Deogarh District, its abundance increases when the temperatures fall below 32°C, and the relative humidity ranges between 60 to 70percent. Through the OFT Programme during Rabi 2012-13 at village Suguda under the block Tileibani Male Annihilation Technology (MAT) was practised @ 10 blocks / ha using Cue lure just below the level of crop leaf canopy when the fruits start to develop with a proper local area management practices. After the Male Annihilation Technology was being practiced and it was observed that infestation reduced significantly and yield was increased to 335 q/ha over 220 q/ha in traditional practices and therefore this technology should be recommended to farmers of Deogarh District where watermelon is a potential crop.

Results	Yield (q/ha)	percent change in Yield	percent fruit infestation	percent change in Parameter	Net Income (Rs./ha)	Benefit Cost Ratio
T <sub>1</sub>	220	52.2	17		51000	2.50
T <sub>2</sub>	335		9	47	85000	2.89

### Control of Yellow Stem Borer in Rice (YSB)

In Deogarh District rice has been grown in 65,000 ha as a dominant crop in Kharif season. Yellow stem borer causes white ear head damage and has a much greater impact on rice yield in the irrigated ecosystem than did damage due to dead heart. White ear head damage occurs later in the season and results in direct loss of yielding panicle, and thus, no compensation (or very little) is possible. Field experiments were conducted through FLD Programme in village Kailash to investigate the control of stem borer damage on the basis affecting and yield response of irrigated rice by installation of pheromone traps @ 20 Nos./ha and need based application of pesticides like Trizophus @ 2 ml/lt and followed by a good management practices. After the experiment was conducted it was observed that YSB

damage was reduced remarkably up to 62 percent which increased the yield upto 72.5percent with a net return of Rs.15, 000/- through recommended practices. Therefore this technology should be strongly recommended to farmers of Deogarh District where YSB is the major part of rice consistently. The proof in support of economic importance of control of YSB is given in the following table.

Results	Yield (q/ha)	percent change in Yield	Parameter (No. of tillers affected/ sqm)	percent change in Parameter	Net Income (Rs./ha)	Benefit Cost Ratio
FP	25.5		14		5500	1.30
RP	44.0	72.5	4	71.4	15000	1.43

### **Compensatory Measures for Pest and Disease attack**

Farmers are motivated / made aware of prior to attack of such incidence through Pest surveillance and even if now it is already launched the e-pest surveillance Programme of Agriculture Department since 2010 in the district mainly for Paddy and non- Paddy crop like Mung, Biri, Arhar and G.nut crop in both the season. If epidemic like situation arises for any specific pest and disease, Mass spraying of Pesticides are being undertaken by the Department either free of cost or subsidy scheme pesticides supply to mitigate the situation.

Awareness for preventive measures for major insects/ pest are being taken by the department through awareness Programme, Training and personal contact, mobile message to the farmers.

Preventive measures for attack of Insect/Post mainly are:

Seed Treatment, Seedling treatment and soil treatment.

Use of healthy seeds free from insect /Pest

Tolerant / Resistance variety of seeds to pest attack

Balance use of chemical fertilizers.

Advance sowing /planting crops.

Weeds / Water management

Summer ploughing of main field.

### **Institutional Intervention – The role of Krishi Vigyan Kendra (KVK)**

The Krishi Vigyan Kendra (KVK), Deogarh with the task of informing, educating, training and guiding the farmers about the best agricultural and horticultural practices started functioning from 7<sup>th</sup> July, 2006 at Kurodkot with the following mandate.

1. On-farm testing of location specific technology for easy acceptance by the farmers.
2. Frontline demonstration on oilseeds and pulses as well as crops other than oilseeds and pulses for gaining of first-hand knowledge-experience.
3. Vocational and skill oriented trainings to farmers, farm women and rural youths on agricultural and allied disciplines for upliftment of rural areas.
4. In-service training to extension functionaries and NGOs working in agriculture and rural development sectors for updating their knowledge. These Kendras emphasise on location specific technology. The KVK Deogarh has identified the following problem areas.

Sl. No.	Problem identified
1	65 percent of the soil is acidic
2	70 percent of the area is rain fed
3	74 percent of the total geographical area is covered under mountains, hills and dense forest
4	Lack of adoption of off-season vegetables
5	Less crop diversification in uplands from rice to other crop
6	Lack of farm mechanization
7	No soil and water conservation measures and improper management of water
8	Lack of utilization of forest produce for income generating activities
9	No agro based income generating activities of the SHGs
10	Heavy loss from the farming due to non-adoption of IPDM measures
11	Adoption of old traditional varieties in pulses and oilseeds
12	Absent of farmers organization
13	Non adoption of high value crops by the farming community

The Kendra also has identified some important areas- thrust areas for improving agriculture

Sl. No.	Thrust Area
1	Production of quality seed and planting materials in different major crops of the district.
2	Rejuvenation of existing orchards
3	Management of Acid soil for higher productivity
4	INM in different crops
5	Yield enhancement of cereals, pulses, oil seeds, fruit and vegetable crops through implementation of proper IPM strategies
6	Water management and soil-water conservation
7	Farm mechanization
8	Better and efficient utilization of forest produce for income generation of rural poor
9	Agro based income generation activities to rural youths and farm women
10	Organization of farmers clubs/associations in the district

- 11 Drudgery reduction of farm women
- 12 Food and nutritional security
- 13 Poultry, duckery, goatery and dairy farming

As a result of institutional interventions remarkable improvements have been made in the field of agriculture in Deogarh District. These are given in the following tables

#### Achievements from 2006 – 2015:

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
No. of On Farm Trial	3(21)	10 (69)	9 (66)	8 (40)	14 (92)
No. of Front Line Demonstration	8 (50)	22 (110)	18 (90)	16 (80)	23 (122)
No. of Training	19 (444)	108 (2168)	54 (1200)	69 (1580)	97 (2185)
No. of other extension activities	65 (2530)	115 (3472)	97 (2927)	247 (5325)	345 (3282)
Seedlings and saplings produced	-	-	51493 (430)	42393 (345)	69782 (577)
<b>Particulars</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	
No. of On Farm Trial	18 (83)	16 (100)	17 (233)	15 (135)	
No. of Front Line Demonstration	23 (162)	20 (207)	19 (250)	17 (190)	
No. of Training	87 (1890)	77 (1725)	73 (1565)	69 (1525)	
No. of other extension activities	373 (3432)	331 (9990)	264 (3678)	768 (5188)	
Seedlings and saplings produced	61507 (645)	48100 (468)	51010 (520)	31163 (412)	

#### Impact of Demonstration Technologies in the District

Sl. No.	Name of Specific technology	percentage adoption	Change in Income (Rs./ hect.)		Horizontal Spread (hect.)
			Before	After	
1.	Integrated Farming System (IFS) : maize + poultry (50 birds) + paddy straw mushroom (100 beds) + 114aocist-compost + off-season vegetables (tomato and cauliflower)	10	15,820	44,300	28 (15)
2.	Tomato (Varietal evaluation, seed treatment, RDF and IPM practices)	32	56,100	1,03,100	135 (412)
3.	Water melon (Fertilizer application (NPK@ 120:60:90kg/ha) and 2 nos. spraying of micronutrient mixture@3ml./litre after flowering in 15 days interval)	35	31,330	50,770	275 (253)
4.	Litchi (200 micron black polythene mulching on surface layer 2 mt. Away from main trunk(10 years old tree)	12	1,13,700	1,69,100	62 (73)
5.	Onion : Foliar application of metalyxil + mancozeb @ 2gm/lt of water + streptocycline @ 1 gm/ 10 lt of water in 7 days interval after emergence of the disease	15	12,600	21,900	78 (100)
6.	Sweet orange (Application of	28	82,000	1,44,000	45 (62)

streptocycline (0.1 gm/lt) + confider (3ml/10lt) + Redomil (2gm/lt) at 15 days interval from marble fruit size)

7.	SRI method of rice cultivation	25	19,840	33,600	355 (805)
8.	Threshing of groundnut by power operated groundnut thresher	23	-	20,000	250 (413)
9.	1.5 hp petrol start kerosene engine to operate paddy thresher cum winnower	21	-	25,000	165 (202)
10.	Self-propelled rice trans planter	10	-	30,000	09 (253)
11.	Popularization of mushroom through SHGs (30 members)	32	-	12,600	21 villages

Scientific cultivation practices are popularised by KVK, Deogarh in the case of groundnut, pigeon pea, sunflower, green gram, watermelon, tomato, sweet orange and onion.

### **Kharif groundnut production technology**

The vast area of well drained sandy loam, red soils of Deogarh district can be explored for Kharif groundnut production. Low yield (11.40 ql/hect.) was found due to large scale cultivation of AK-12-24 variety and lack of reclamation of acidic soil, no proper nutrient management and non- adoption of Integrated Pest and Disease Management practices. KVK Deogarh since its inception, started popularizing the scientific ground nut cultivation practices in acidic soil through FLD Programmes which include varietal substitution by Smruti, Debi like varieties, rhizobium inoculation, seed treatment, Paper Mill Sludge, gypsum and Recommended Dose of Fertilizer application with need based IPDM practices. The performance of the FLD plots gave a higher yield of more than 20percent above the farmer's practice, thereby increasing the Benefit cost ratio. The FLD Programmes through these years have been taken up in Bangalimunda, Akhyarasila, Balirui, Thakurapali like villages with horizontal spread of 230 hect.

Year	Technologies demonstrated	Demonstrated yield (q/hect.)	Local practice (q/ hect.)	percent increase in yield	Yield gap (q/ hect.)	Cost Benefit ratio
2006-07	Varietal	9.0	7.5	20	1.5	1.91
2007-08	replacement,	9.55	7.8	20	1.75	1.6
2008-09	seed	12.1	9.8	23.4	2.3	1.72
2009-10	treatment, INM	16.6	9.2	80.0	7.4	2.06
2010-11	/ IPDM practices	15.1	10.7	41.1	3.4	2.14

### **Pigeon pea crop for the upland situation**

Pigeon pea, a long duration crop is suitable for this large area of unbounded upland of Deogarh district. The poor yield of pigeon pea in the district (6.15 ql/ha) was identified during field visits and PRA surveys. The factors for the lower yield were lack of suitable variety for this agro-eco-

system and non-adoption of nutrient and pest management practices. About 35 ha were covered under FLD Programme in Bangalimunda, Rengalbahal, Dhauragoth, Khilaberini like villages taking more than 100 farmers. Seed treatment, timely sowing, optimum plant density, application of PMS, gypsum and RDF, moreover crop surveillance with need based application of IPM modules were made appraised to the farmers. The results of FLDs are mentioned below. The improved technology has a horizontal spread of 220 ha in the district in 34 villages.

Year	Technologies demonstrated	Demonstrated yield (q/ hect.)	Local practice (q/ hect.)	percent increases in yield	Yield gap (q/ hect.)	Cost Benefit ratio
2006-07	Asha, Seed	10.8	7.6	45	3.2	1.63
2007-08	treatment, RDF	10.68	7.5	42.4	3.18	1.96
2008-09	and Need based	10.5	6.6	21.5	4.9	2.11
2009-10	IPM practices	10.6	7.9	34.0	2.7	3.4
2010-11		11.1	7.8	42.3	3.3	3.71
2011-12		13.4	8.5	57.6	4.9	2.52



**Upland pigeon-pea crop**



**Green gram farming demonstration**

**Cultivation of sunflower crop in irrigated areas of plateau ecosystem**

After sesame, groundnut and rapeseed mustard, sunflower is the fourth leading oilseed crop (480 ha) of the district. Being cultivated only in rabi season, it is gradually becoming popular in the irrigated patches of the district. The major problems of sunflower cultivation found out through group discussions, meetings and field observations were mainly lack of knowledge on integrated nutrient management (INM) practices in sunflower cultivation. Krishi Vigyan Kendra has popularized the INM technology in hybrid sunflower cultivation since 2006-07 through FLDs. The following table gives a glimpse to the achievements of the FLDs over the years. The technology has achieved a horizontal spread of 170 ha in the district. The FLD covered villages such as Kalamati, Nuagoan, Bamparada, Kailash have adopted the technologies and enriched their economic status and nutritional security.



Year	Technologies demonstrated	Demonstrated yield (q/ hect.)	Local practice (q/ hect.)	percent increases in yield	Yield gab (q/ hect.)	Cost Benefit Ratio
2006-07	Introduction of KBSH-1 hybrid seed	6.25	5.0	25	1.25	1.6
2007-08	treatment, RDF, Boron application, IPDM practices	6.95	4.7	69.4	2.25	2.1
2009-10		14.1	10.8	30.0	3.3	2.20
2010-11		14.0	10.4	34.6	3.6	2.14
2011-12		13.2	8.6	53.5	4.6	4.55



**Sunflower in full bloom in the field**

### **Green gram cultivation can be remunerative**

The increasing trend of the price of the dal has multiplied the scope of cultivation of green gram, the highest covered pulse crop (>10,000 hect.) of the district. Though cultivated in all the three major seasons in the district, the poor average yield (3.72 q/hect.) had been earlier discouraging the farmers. Through PRA survey and frequent field visits, it was found that non-adoption of recommended cultivation practices has led to this poor productivity. KVK, Deogarh has introduced these technologies in Niktimal, Balanda and Ballam villages to popularize the latest technologies. PDM-11, PDM-54, Kamdeb like HYVs, PMS etc have been introduced at the farmers level. To overcome the problem of acid soil, rhizobium culture of 20 gm/kg of seeds and need based IPDM practices are provided through FLD Programmes because of such interventions farmers have harvested a yield which is 35 percent more than the yield recorded previously. The outcome of such practices is summarised in the following figure.

Year	Technologies demonstrated	Demonstrated yield (q/ha)	Local practice (q/ha)	percent increases in yield	Yield gab (q/ha)	Benefit Cost Ratio
2006-07	Varietal replacement,	6.82	4.43	53.9	2.39	1.76
2007-08	rhizobium treatment, RDF and	6.6	4.44	49.0	2.16	2.9
2008-09		4.9	2.75	30.6	1.15	2.76
2009-10		5.6	4.2	33.3	1.4	3.88
2010-11	IPDM practices	4.3	3.2	41.1	1.1	2.88

## **Integrated Nutrient Management for higher productivity in Watermelon**

Deogarh district is famous for watermelon cultivation. About 3000 hect. are of land is under watermelon cultivation in late rabi season. Through PRA study and frequent field visit it was found that the low productivity of watermelon is due to improper nutrient management by the farmers. KVK, Deogarh assessed the Integrated Nutrient management in Watermelon during 2007-2011 in Suguda, Chheplipalli and Niktimal villages by use of recommended dose of fertilizer application as per soil test (NPK @100:60:60Kg./ha) + application of boron 2 times @2g/litre after flowering in 15 days interval, timely plant protection measures to control disease and pests and management of proper cultural practices. The yield was 36.3 percent more than the farmers practice and the BC ratio was 2.29. The INM practices in watermelon were popularized through FLD. This has brought significant improvement in returns. A summary picture of the same is given in the following table.

Average Yield (q/ha)	Yield gap (q/ha)	Increase productivity (percent)	Average Net return (Rs.)	Benefit cost ratio	Horizontal spread Area (hect.)	No. of farmers adopted
300	80	36.3	50, 700.00	2.29	350	300

## **Popularization of Utkal Raja variety of tomato**

Tomato is a major vegetable in Rabi season. Around 560 hectare of land is under tomato. During PRA survey it was found that the productivity of tomato is decreasing due to lack of suitable variety, use of degenerated seed materials, non-adoption of seed treatment, seedling treatment and IPDM practices. In 2009-10 KVK Deogarh assessed newly released tomato high yielding variety Utkal Raja along with integrated nutrient management and timely plant protection measures to control disease and pests in Bichhakhani, Niktimal and Kharamunda villages. The average yield of the variety was 360 q/ha and net return of Rs. 67, 500.00/hect. The variety was popularized through FLD, Field day and training. The details of yield and productivity are given below.

Average Yield (q/ha)	Yield gap (q/ha)	Increase productivity (percent)	Average Net return (Rs.)	Benefit cost ratio	Horizontal spread Area (hect.)	No. of farmers adopted
360	70	24.13	67, 500.00	2.24	135	380

## **Use of Zinc for higher productivity in Sweet Orange**

Deogarh district is famous for sweet orange. During soil test campaign it was found that the soil was deficient of Zinc which leads to low yield (180-

200kg/plant). More over the produce was found with less taste due lack of zinc because Zinc is second most essential nutrient after nitrogen. KVK Deogarh, realising the problem assessed Zinc in sweet orange by spraying of zinc sulphate @ 2ml/lit of water during marble fruit stage and another spray after 15 days which leads to the yield 243q/hect. The TSS was 10.6<sup>0</sup> Brix and the BC ratio was 2.36. The technology was popularized through Field Level Demostration (FLD), Field day and training. The details of yield and productivity are given below.

Average Yield (q/ha)	Yield gap (q/ha)	Increase productivity (percent)	Average Net return (Rs.)	Benefit cost ratio	Horizontal spread Area (hect.)	No. of farmers adopted
243	57	30.64	70, 200.00	2.36	58	79

### Popularization of Kharif Onion in uplands

Kharif onion is suitable for large area of upland of Deogarh district. The poor yield of upland paddy in the district was identified during field visits and surveys which needs crop diversification in uplands. To address this problem, KVK Deogarh in view of the problem introduced kharif onion variety Agrifound Dark Red, Kharif onion production technology, timely plant protection measures to control disease and pests. The variety was assessed in Malehipada and Niktimal village. The yield of kharif onion was 147q/ ha with average net returns of Rs. 34, 800.00 and the variety was horizontally spread up to 17 hect. of land in the district. The cost benefit ratio average net returns and yield etc are given in the following table.

Average Yield (q/ha)	Average Net return (Rs.)	Benefit cost ratio	Horizontal spread Area (hect.)	No. of farmers adopted
147	78, 500.00	2.15	17	107

### Value addition to farm produce and SHGs

Deogarh occupies a prominent place in the production of seasonal fruits and vegetables. Abundant production of vegetables and fruits are not fully utilized. About 20 to 30 percent is wasted due to improper post-harvest management like absence of cold storage and no value addition. Keeping in view of the above-mentioned facts an initiative was taken by the KVK Scientists to popularize value addition in the district through frontline demonstrations and trainings.

Different skill-oriented trainings on value addition were organised for farm women, school dropouts and SHGs for preparation of jam, jelly, squash, sauce, pickle and puree, etc. from different seasonal fruits and vegetables.

After acquiring the requisite knowledge and skill on value-addition, some of the SHGs have already adopted these technologies for income generation. They used to sell their value added products in the name of their SHGs.

### **Irrigation System and Infrastructure in the District**

Water is an important factor after soil in farming operations. Well distributed rainfall matters most to the cultivators. In most of the years the amount of average rainfall is sufficient, but it is often unevenly distributed and deficiency in critical months becomes fatal to crops. Gravitational, mechanical or manual irrigation is necessary. About 33 percent of the Kharif cultivated area of the district is irrigated and the rest 67 per cent is rainfed.

### **Gohira Medium Irrigation Project**

Construction of the Gohira Medium Irrigation Project was started in 1976 and completed in 1981 as a part of the Rengali Dam Project before the formation of Deogarh district. It is constructed across Gohira Nalla, a tributary of the river Brahmani and was handed over to the Sambalpur Irrigation Division located at Burla in 1988. The command area is irrigated by two main canals to the left and right of the dam.



**A view of Gohira Dam**

It has a catchment area of 236 sq. Km with discharge capacity of 1840 Cusecs. The project has a gross command area of 10325 Ha. and a certified command area of 8165 Ha. covering 88 villages of Tileibani and Reamal blocks. This project irrigates 8165 Ha. In Kharif and 3429 Ha. during Rabi, The intensity of irrigation is 100 per cent in Kharif and 42 per cent in Rabi seasons. The water from the dam flows through two canals - the left canal and the right canal which run 22.35 km and 25.84 km respectively.

## Present Scenario

As the Project is 30 years old, extension, rehabilitation and modernization works for 2 nos. of main canals, 4 nos. of distributaries and 8 nos. of minors divided into 8 nos. of packages which are completed, financed through Asian Development Bank (ADB) for an amount of Rupees 23.04 crores being executed through Contractors. Simultaneously E.R.M. works for 71 nos. of Sub-Minors are also executed phase wise for an amount of Rupees 8.00 crores being executed through 19 nos. of Pani Panchayats benefiting 6004 farmers. Also field channels, water courses works are being executed through Pani Panchayats for 71 nos out of 121 nos and monitored through Executive Engineer, CADA, Sambalpur during the financial year 2011-12 and 2012-13 financed through Asian Development Bank. The project is giving Kharif irrigation successfully. The full potential of Rabi irrigation is not being achieved due to deviation of farmers from the proposed cropping pattern. The designed Rabi potential can be achieved by way of motivating the farmers to adopt the proposed cropping pattern.

The Kharif and Rabi Programme and achievement for last 10 (Ten) years is given below.

Year	Kharif Programme (Ha)	Achievement (Ha)	Rabi Programme (Ha)	Achievement (Ha)	Remarks
2003-04	8165.00	8165.00	3372.73	3834.34	
2004-05	8180.00	8180.00	4300.40	3849.00	
2005-06	8095.00	8095.00	4300.40	4090.00	
2006-07	8345.00	8345.00	4300.40	4090.00	
2007-08	8165.00	8165.00	4331.19	4088.71	
2008-09	8165.00	8165.00	3123.98	2750.00	
2009-10	8165.00	8165.00	Water was not available for Rabi		FRL achieved but no supply during Rabi due to dry 121 aois.
2010-11	8165.00	8165.00	Water was not available for Rabi		FRL achieved against 235.500m. Max. Reservoir level was 228.500m. Supply was made from dt. 21.08.10. Reservoir was below DSL (226.000m) from dt. 17.10.10.
2011-12	8165.00	8165.00	1632.00		Supply of Right canal water has been stopped due to execution of ERM works.
2012-13	8165.00	8165.00	4348.00	4348.00	Rabi irrigation 2012-13 was in force upto dt. 17.05.13

2013-14	8165.00	8165.00	4176.46	4007.00	Rabi irrigation 2012-13 was in force upto dt. 17.05.13
2014-15	8165.00	8165.00	4400.00	660.00	Rabi irrigation 2014-15 was in force upto dt. 10.04.15

### Minor Irrigation Projects

An Irrigation project facilitating irrigation potential above 40 hect. and up to 2000 hect. is termed as Minor Irrigation Project (M.I.P). Deogarh Minor Irrigation Division, was created after bifurcation of Sambalpur Minor Irrigation Division in September 2012 and serves the entire Revenue area of Deogarh District. 31 M. I. Ps including the category of Reservoir and Diversion Weir, designed to provide 4660 hect. in Kharif and 209 hect. in Rabi cropping seasons. The certified ayacut are 3113 ha in Kharif and 167.41 ha in Rabi. Out of this 15 are completed and 8 are partly derelict and 6 are completely derelict, 2 are on-going project. Out of 2 ongoing projects 1 is in progress under State Plan Funding and 1 nos although find place in the on-going category in M. I. Booklet but it is not funded under any scheme. As per decision of Government the maintenance and repair works of the project is being transferred to concerned Pani Panchayats in a phased manner. The detail of minor irrigation are given in the following table.

No. of M. I. Sub-Divisions	2 nos. Block area Tileibani and Reamal Block and M.I. Sub-Divn, Barkote in Barkote Block.	2 nos i.e M.I.Sub-Divn, Deogarh.
No. of M. I. Section		4 nos
Total no. of MIPs.		31 nos.
Kharif		4660 hect.
Rabi		209 hect.
	<b>Presently Providing Irrigation</b>	
Kharif		3113 hect.
Rabi		167.41 hect.

### Lift Irrigation

In Deogarh District majority of the population depends on agriculture. The irrigation facilities are inadequate to meet growing demand of agriculture production. The monsoon rainfall is erratic, irregular and unpredictable for growing crops in both Kharif and Rabi, which is the only livelihood for the people of this area. Hence the Lift Irrigation can be treated as immediate measure to increase in irrigation facilities. This will help the farmers to save their Kharif Crops in drought like situation and to raise cash crops like Ground Nut, Potatoes, Vegetables, Water Melon and Sun Flower etc in Rabi Season.

There are 122 nos existing River Lift Projects in different village under three Blocks of Deogarh District and all projects have already been handed over to Pani Panchayat for smooth operation as per the guidelines made by Government of Odisha and take responsibility for operation and maintenance of the projects only energy charges will be deposited to DISCO.

Sl No	Name of the Block	Nos. of existing L.I. Project as on 30.07.2015	Area in hect.	Nos. of defunct L.I. Project as on 30.07.2015	Area in hect.
1	Barkote	43	960	2	40
2	Tileibani	26	548	3	60
3	Reamal	53	1180	4	84
	TOTAL	122	2688	9	184

Government of Odisha has launched the scheme for exploitation of ground water resources through construction of deep bore well in hard rock areas of the State with a view to augment irrigation potential mostly in Blocks which have less than 35percent irrigation. Total 1707 nos. of Deep Bore Wells have already successfully drilled in Deogarh District from the year 2010-11 to 2013-14.

Sl No	Name of the Block	Nos of successfully drilled as on 30.07.15	Nos of Energised Bore Wells as on 30.07.15	Area Programme in Hect.or	Balance Bore Wells to be energised	Beneficiary share collected as on 30.07.15
1	Barkote	724	213	426	511	489
2	Tileibani	423	111	222	312	251
3	Reamal	560	152	304	408	335
	TOTAL	1707	476	952	1231	1075

### **Soil Conservation and Watershed Development Programme in Deogarh**

The Soil Conservation sub-division office, Deogarh was created during the year 1997 after bifurcation from undivided Sambalpur District and started functioning with effect from dt. 05.05.1997 in full-fledged manner. Prior to that, it was a soil conservation range under the control of Asst. Soil Conservation Officer, Kuchinda of the then Sambalpur district. Since its creation, it has been functioning well covering entire Deogarh District. Subsequently, in the year 2012, the post of Project Director Watersheds, Deogarh was created in place of erstwhile Assistant Soil Conservation Officer, Deogarh for restructuring of Soil Conservation Organization.

About 60 to 70percent area of Deogarh District comes under rain-fed condition and its major portion is under Rengali Catchment of Brahmani River System. Nominal portion of Tileibani Block (Loimura to border of Kuchinda) comes under Hirakud Catchment of Mahanadi river system. The details of works executed have been shown in the following table.

Sl. No.	Soil Conservation Measures`	No./ Area in hect.
1	Water Harvesting Structure(WHS)	83 Nos.
2	Diversion Weir	2 Nos.
3	Silt Retention Structure	52 Nos.
4	Farm Pond	700 Nos.

## Watershed Management

Watershed Management is a single window, Integrated Area Development Programme. Watershed is recognized as an ideal unity for planning and Development of natural resources like Land, Water and Vegetation in scientific manner and judicious use of these natural resources by following suitable conservation measures are very much essential for sustainable production. Now, IWMP is being implemented in the district since 2010-11 on cluster approach basis.

In the district, there are 385 no. of Micro Watersheds identified, out of which 295 Nos. (Priority-I), 77Nos. (Priority-II) and 13 no. in (Priority-III).

*(Area in hect.)*

Sl. No.	Scheme	No. of Watersheds Taken Up	Total Treatable Area
1	National Watershed Development Project for Rain fed Area (NWDPPRA)	9 nos.	6560.11
2	River Valley Project (RVP)	8 nos. (Sub-Watersheds)	10052.03
3	Integrated Waste Land Development Project (IWDP)	26 nos.	13600.94
4	Integrated Watershed Management Programme (IWMP)	94 nos.	52197.00

## Livestock Resources

Deogarh district is endowed with rich forests, streams, grass lands and happens to be a natural reservoir of food and fodder for animals. Animals have been tamed and harnessed for performing domestic chore, farming operations and in transportation. Some animals and birds were reared as a part of fanciful living. The erstwhile kings of Deogarh were mostly dependent on horses and elephants for conveyance, transportation and security purposes. For pleasure, kings used to arrange 'shikar' in dense forests, had



caught and tamed elephants, and had opened even set up zoos and menageries in the heart of the kingdom. They had set up '*goshalas*' to breed and rear better breed of milch animals. . English veterinary surgeons were appointed by the then kings to help rear better breed of cattle and to attend to the health care of other livestock. The tall '*Firangi*' or English Vet who was thus appointed and looking after the health care of horses and elephants in the royal stable has gone into local lore. There was huge statue of a horse standing over a pedestal beside the roof top of the present hospital of Deogarh. The remnants of *Hatisaal* (elephant shed) and *Ghodasaal* (stable) speak volumes of past contribution of the royals for animal care in Deogarh.

In the present set-up of livestock management in the district, Chief District Veterinary Officer (CDVO) is the administrative head with one Sub-Divisional Veterinary Officer, two Additional District Veterinary Officers and one Nodal Officer for support. There are 3 Veterinary Dispensaries, one in each block Head Quarters. District Veterinary Hospital is located at District. Deogarh headed by Deputy Director Clinics. Sub-Divisional Veterinary Officer Deogarh is the Superintendent of all Veterinary Dispensaries. There are a total of 20 Nos. of Livestock Aid Centres operating at GP level. Under self-employment scheme, 18 numbers of *Gomitras* are working in the district exclusively looking after the artificial insemination and vaccination Programmes.

After formation of new district, the infrastructural development of the department gathered momentum. At the district headquarters, a veterinary complex came up with construction of the new CDVO office building, District Diagnostic Laboratory and District Swarnajayanti Gram Swarozgar Yojana (SGSY) Hatchery. The new District Veterinary Hospital and Sub-Divisional Veterinary Office buildings are under construction to provide better amenities for livestock care.

### **Animal Husbandry Practices in Deogarh**

Of the total of the district more than 85 percent earn their livelihood through different animal husbandry practices. The reasons for this are shrinkage of agricultural land, up-gradation of indigenous stocks and assured income. Over a period of time, the socio-economic status of the small and marginal farmers has improved through adoption of updated technology. Government facilitation in providing various inputs like mini-kits for fodder cultivation, vaccines against infectious diseases, health care and management, skill up-gradation training on better animal husbandry practices, etc. have enthused farmers to take to animal husbandry. Effective market linkage has encouraged the promotion of different livestock products and has provided value for money for cattle and poultry products.

## Livestock Wealth of Deogarh District

In Deogarh district upgraded Holstein, Friesian, Red Sindhi and Jersey cows have come up due to successful Artificial Insemination Programme (AIP). Vanaraja breed of poultry genetically developed by ICAR are most productive and suitable to local condition.

There had been marginal drop in cattle population in the district of Deogarh since 2007. With the ongoing breeding Programme, it has been enhanced significantly during 2012. Buffalo and poultry population show decreasing trend. But, goat population has shown a steady growth. It signifies that goat population increased due to implementation of NMPS (National Mission for Protein Supplement) Programme. Further, BAIF (Bharatiya Agro Industries Federation) activities in clusters of 3 different blocks boosted the goatery activities.

## Livestock Wealth of Deogarh District

Cattle	Indigenous	163515	167175
	Cross Breed	3660	
Buffalo			4022
Sheep			3688
Goat			133991
Pig			1974
Poultry			75653

## Present Status of Livestock Output (Milk, Meat and Eggs)

Sl. No.	Type of output	Quantity produced per year
1	Milk	12.179 MT
2	Meat	0.769MT
3	Eggs	6.769 Millions

## Disease Diagnostic Laboratory (D.D.L.)

Activities of the Deogarh District Diagnostic Laboratory (DDL) are as follows.

1. To provide diagnostic services to the farmers relating to various diseases
2. To ensure close surveillance of different infectious and contagious diseases
3. Help in combating outbreak of livestock and poultry diseases in the district in collaboration with ADRI (Animal Disease Research Institute), Phulnakhra, Cuttack.
4. Different tests conducted in DDL like faecal, blood and urine sample

## Bharatiya Agro Industries Federation (BAIF)

This is a non-governmental organization which has been in operation in Deogarh District since 2010 to sponsor and assist in the area of agro products and industries. There are 5 clusters i.e. Samantarapali, Basaloi, Adas, Kendijuri and Tinkbir covering 152 villages in 16 GPs covering 3962 families. About 32,788 goat population is covered by 300 goat keepers. During May 2013, the first ever goat rally was organized by BAIF at Samantarapali centre with the participation of 2429 number of goats.

**Diseases of Cattle/ Buffalo-** Haemorrhagic septicemia (HS), Black Quarter(BQ), Tetanus, Colibacillosis, Mastitis, Enteritis, Theleiriasis, Surra, Listeriasis, Mange, Nasal Granuloma (NG), Bunostomiasis, Fascioliasis, Ascasis infestation, Foot and Mouth Disease(FMD), Rabies, Ketosis, Hypocalcaemia, Hypomagnecaemia

**Diseases of Sheep/Goats:-** Peste des Petites Ruminants(PPR), Goat Pox, Contagious ecthyma, Rabies, Enteritis, Caprine Arthritis, Listeriosis, Enterotoximia, Fascioliasis, Ascasis, Hemonchous infestation, Dermatophytosis,

**Diseases of poultry:-** Fowl pox, New Castle Disease, Avian Infectious Bronchitis, Avian infectious Laringotrachitis, Bacillary White Diarrhea (BWD) Coccidiosis.

### Veterinary Hospitals, Dispensaries and Livestock Aid Centres

Sl. No.	Name of the block	Name of the VD/ Hospital	Name of the LAC	Name of the GP / Municipality covered
1	Reamal	Veterinary Dispensary Reamal	-	Reamal, Maleipada, Adas, Tabada, Gundiapali, Budido
			Tarang	Tarang, Tuhilamal
			Tinkbir	Tinkbir, Naulipada, Nuadihi, Khilei, Kantabahal, Lulang
			Palsama	Palsoma, Utunia, Karlaga, Baghbar
			Budhapal	Budhapal, Para
2	Tileibani	Veterinary Dispensary Tileibani	Kundheigola	Kundheigola, Chadheimara,
			Barghat	Kendeijuri
			Kansar	Kansar, Sado, dholpada
			Dudhianali	Dudhianali, Talkundi
			Laimura	Laimura
			Parposi	Parposi
			Phulpatharkhol	Jharagoga

3	Deogarh (Municipality)	Veterinary Hospital Deogarh	Dimirikuda	Dimirikuda
			-	Deogarh Municipality Area
			Suguda	Suguda, Baniakilinda, Chhepilipali, Badchapal
4	Barkote	Veterinary Dispensary Barkote	Tainsar	Tainsar
				Danra, Singsal, Balanda, Kadapada, Jharakandhal, Kelda
			Kalla	Kalla, Bamparada, Kaliapal
			Gursang	Gursang, Sarualli
			Raitabahal	Raitabahal, Madhyapur Kkandhal,
			Kandhal	Balam, Bijaynagar, Dandasinga
			Dantaraibahal	Dantaribahal,
Basalai	Basalai, Kaunsibahal			

## Current Activities of Animal husbandry and livestock rearing

### Artificial Insemination

It is a regular and ongoing activity of the department for up-gradation of native cattle population to increase productivity through utilization of Frozen Semen Technology.

### Vaccination

Preventive measures through pre-emptive and advanced vaccination are a regular feature in the district against contagious diseases like Hemorrhagic Septicemia, Black Quarter, Anthrax and FMD in bovine species, PPR, Goat Pox, Enterotoxaemia in Caprine species and RD (R<sub>2</sub>B vaccine) in poultry birds to check the outbreak.

### Sample Survey

Survey on production of milk, meat and egg is conducted seasonally (Summer, Rainy and Winter) taking 10 sample villages in each season for estimation of district milk, meat and egg production .

### Fodder Development

The department ensures supply of Fodder Mini-kits (Seasonally) free of cost to the farmers. Under this Hybrid Napiers, Para grass roots, M.Pchari, cow pea, maize seeds in mini kits used to be provided.

## **National Mission for Protein Supplement (NMPS)**

State Government Scheme for goatery Farmer in which the beneficiary will be approved by Concerned PRI members, BDO and BVO/ VAS. In this scheme the beneficiary will purchase 50 female goats does and 3 Bucks and build goatery shed as per guideline. Beneficiary will get total amount of Rs. 52,000/- Rupees (Fifty two thousands) only in three instalment. In this scheme 11 units are established for the year 2011-2012, 9 units for 2012-13 and 13 units are in progress for 2014-15.

## **Mobile Veterinary Unit (MVU)**

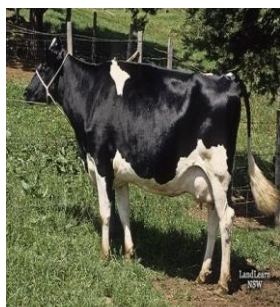
The MVU is one of the flagships Programme of the department operating in all 314 blocks in order to ensure effective veterinary service delivery in remote areas. MVU started in Deogarh District recently during 2014. Under state Government scheme implemented during the end of 2013-2014, that operated in 3 blocks of Deogarh dist. MVU constitute one retired VAS, retired LI and attended under the supervision of concerned BVO/VAS. The aim of the Programme is to strengthen the service delivery mechanism so as to ensure better accessibility of services at the farmer's door level.

## **Training and Awareness**

Different type of training and awareness Programmes are conducted in district regarding timely vaccination, deworming, scientific health care and management of livestock. Farmers are motivated for artificial insemination and Fodder Cultivation.

## **Promotions of Dairy Entrepreneurs**

Dairy loans for 2-10 animals is a maximum of Rs.5 lakhs. Farmer gets 25 percent subsidy in case of general category and 33 percent for SC/ST category. In this scheme 703 applications are sponsored to different Banks and 47 applications are sanctioned against 26 targets till 2015.



**Holstein Friesian**



**Red Sindhi cow**



**Jersey cow**



**Binjhapuri cow**



**Murrah Female Buffalo**



**Jafarabadi Male**



**Indigenous Pig**



**Black Bengal Goat**



**Vanaraja Backyard Poultry**



**Khaki Cambel Duck**

## **Short-term Subvention**

In this scheme farmer can avail loan maximum 3 lakhs for feed, fodder cultivation, shed repair, replacement of cow etc. farmer get 5percent interest subvention on working capital and additionddal 3 percent interest subvention will be provided for Prompt repayment of loan maximum subsidy is Rs. 24,000/- per farmer. In this scheme 210 applications have been sponsored to different banks and only 37 applications have been sanctioned against a target of 58.

## **Long-term Subvention**

Farmers which takes loan in PDE, DEDS will be taken in this scheme and get 3percent interest submission on term loan , additional 2percent interest submission will be provided for prompt repayment of loan .Maximum subsidy amount is Rs. 50,000/- per farmer. In this scheme 13 in targets which will be achieved from PDE beneficiary on prompt repayment.

## **Livestock Insurance**

It is new scheme implemented for management of Risk and Uncertainties by providing protection mechanism to farmers against any eventual loss of animals due to death. As Deogarh comes under LWE district have been more subsidy in premium then normal district. For one year rate of premium is 1.15percent and 3.25 percent for three years of animal cost. BPL/SC/ST has to give 20 percent of the total premium for one year and other 40 percent of the premium for three year. Rest amount of premium is provided by Government. Under the scheme farmer will cover maximum 5 large animals and 50 small animals. Farmer can insure more than specified limit by giving 100percent premium without subsidy. Value of animal like dairy cattle is minimum Rs.3000/- per litter and buffalo is minimum Rs. 4000/- per litter.

## **Special Prevention for Cruelty to Animals (SPCA)**

The SPCA (Society for Prevention of Cruelty to Animals), 59<sup>th</sup> amendment of 1960 Act and 26<sup>th</sup> amendment of 1982 Act, known as the SPCA Act of 1960 is duly implemented in the district. Indian Animal Welfare Board has been formed in line with the said act. The state's apex society operates in Directorate of Animal Husbandry and Veterinary Services. The district bodies are registered and functions as per the regulation. For proper nutrition and to meet the fodder needs of the domestic livestock and to encourage seasonal fodder production, the department provide free of cost Fodder Minikits to the farmers.

## **Future Prospective Plan**

The district veterinary set-up has drawn up an ambitious development plan for the future in consonance with the policy of the State Government. Following are the focus areas of the prospective plan.

- i) Special focus on dairy development activities through opening of MPCS taking support of OMFED
- ii) Opening of milk, egg and icecream parlours in urban and semi-urban area.
- iii) Operationalise hatchery to supply chicks at reasonable price to backyard poultry farmers for their economical upliftment.
- iv) Strengthening disease surveillance through District Diagnostic Laboratory (DDL) to control diseases like Anthrax, H.S., B.Q., FMD, Bird flu, Mastitis, etc.
- v) Propagation scientific veterinary management practices to strengthening socio-economic status of the rural people like introduction of improved germplasm in the native breeds
- vi) Explore and vitalize marketing chain/linkage through formation of milk and egg societies.
- vii) Promotion of Commercial Agro Entrepreneurs.
- viii) Promotion of better fodder production and azolla culture.
- ix) Regular Training on Capacity building to needy farmers will be given priority.

### **Rearing of Banaraja Dual Purpose Poultry Bird**

Backyard poultry rearing is a part of daily farm activity of the tribal farm families in Deogarh District. But rearing of desi breed and lack of scientific knowledge in poultry lead to high mortality and morbidity and farmers fetch less income. Realizing this problem KVK, Deogarh has introduced Banaraja a dual purpose poultry bird under FLD Programme. Technological vaccination practices, feeding and rearing managements were provided to farmers with support of veterinary staffs. It was very successful due to its characteristics over the local backyard poultry. The farmers are interested to rear in large quantities. Now this Programme has been very popular among SHGs and farmers of different villages of Deogarh district.



## Comparison between Banaraja and local poultry

Item	Banaraja	Local
Male (body weight at 6 months in kg)	3.0 – 3.5	1.0 – 1.5
Female (body weight at 6 months in kg)	2.5 – 3.0	0.75 – 1.25
Egg production per annum	160	60
Egg weight (gm)	45 – 55	25 – 30

## Fisheries and Aquaculture

### Fisheries Status of Deogarh District

Topographically the district is land locked and predominantly forest-clad. The Brahmani is the major river that passes through the district impounding Rengali reservoir and Gohira is the other river in the district on which the Gohira reservoir has been impounded.

As far as Fisheries is concerned the district has a number of water bodies in the form of tanks, pond, MIPs and Reservoirs. District Deogarh has a better scope for reservoir fisheries due to presence of vast resources.

### Resources available in Deogarh District:

Resources	Area in Hect.
GP Tanks	419.15
Private Tanks	387.42
Municipality	1.20
Others	79.20
Total	886.97

### Reservoir

Large reservoir, Rengali	16,250.00
Medium reservoir, Gohira	686.00
<b>Total</b>	<b>16,936.00</b>
Rivers and canals	7,508.00

### Strategies for Fisheries Development:

The prime objective of Fisheries Development in the district is the production of fish to meet the domestic demand as well as to maintain the livelihood of fish farmers and fishermen by selling the harvested fish in domestic market and commercial outlets outside the district and state. Due to the Government intervention there has been an increasing trend in the fish production of the district over the years from 3078.46 MT in 2009-10 to 5268.30 MT in 2014-15.

The Fisheries Department has embarked on a mission on increasing fish production in the next five years through both horizontal and vertical expansion of the resources.



Fish farming tank under construction



Intensive fish farming tank



Fish seed and fingerlings production



Fish netted from farmer's tank

In horizontal expansion it has been proposed to create new water bodies and renovate the old ones so that a good number of projects are added to the culturable water resources each year for production of fish through the following schemes.

1. Under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) multipurpose farm ponds of 0.20 Ha water spread area is excavated in the land of BPL/ small/ Marginal/ S.C./ S.T. families with 100 percent financial assistance.
2. Fish farmers irrespective of their economic status are given technical and logistic support through Fish Farmers Development Agency (FFDA) for promotion of pisciculture with access to institutional finance and subsidy from this agency.
3. National Fisheries Development Board (NFDB) aims to realise the potential through scientific, managerial and financial support to fish farmers and entrepreneurs.
4. Nation Mission for Protein Supplement (NMPS) aims at creating water bodies by farmers with subsidy assistance to produce fish minimum of 5 tons per hect.

For promotion of intensive aquaculture and establishment of fish seed hatcheries additional subsidy is provided under state plan.

Apart from the pond Development, under vertical expansion it has been proposed to raise the fish production and the productivity of the cultivable water bodies to 5 MT and above per Ha by adopting better management practices i.e. use of fertilizers, manures, quality fish seeds and balanced formulated feed. Short term credit support is also provided to the farmers for the procurement of the inputs for which interest subvention is being granted to the farmers.

### **Reservoir Fisheries**

There is better scope for reservoir fisheries since it contributes more than 80percent of the total water resources of the district. There are two reservoirs namely, Rengali (16250Hect.) and Gohira (686 Hect.) providing scope for above 3000 fishermen to maintain their livelihood through fishing. The reservoir fish production and the productivity level is low because the water bodies are not regularly stocked with fish fingerlings by the beneficiaries cooperatives. Government have taken steps and part of reservoir is being stocked with advance size fish seed of 100 mm and above through NFDB Assistance. Under infrastructure Development, captive nurseries have been constructed at reservoir site through NFDB Assistance to promote raising of fingerlings for stocking the reservoir so as to achieve the productivity (fish) level of more than 200 Kg per Hect.

### **Fish Seed Demand and Supply**

Quality fish seed is the major input for successful farming and assured fish production. To cater to the need of the farmers, quality fish seed are being supplied from the departmental farms, Odisha Pisciculture Development Corporation hatchery and private fingerling growers. The fish seed stocking in the district has been raised from 21.36 lakhs in 2009-10 to 92.47 lakhs during 2014-15. The index shows a rapid growth in fish farming in the district.

### **Fishermen Population and Fisheries Co-Operatives:**

The fishermen population in the district is estimated at 4260 persons. For their livelihood and income generation fishermen are engaged in fishing in Rengali reservoir, Gohira reservoir, river Bramhani river and Gohira nalla with traditional crafts (boats) and gears (nets and traps). There are four registered Primary Fishermen Co-operative Societies (PFCS) having 1107 members of which three PFCS are operating in Rengali reservoir and one in Gohira reservoir. Fishermen between the age group of 18 to 70 years are

insured under Group Accident Insurance Scheme to avail benefits in the eventuality of death or disability. For the welfare of fishermen, package of assistance like marketing infrastructure, economic assistance to women SHG, grant of scholarship to meritorious children of fishermen, treatment against fatal diseases and provision of housing under Model Fishermen Villages and *Matshyajibi Basagraha Yojana* are being implemented.

### **Ornamental Fish Farming**

Keeping of ornamental fish in aquarium for decorating houses has become a part of present day life style. About 70 women beneficiaries are involved in ornamental fish production and marketing trade in the district. In addition to their house hold activities the women are involved in production and rearing of ornamental fish in their backyard hatcheries and fishes are sold to the customer locally and outside the district. The business has gained momentum. The Landijhari village of Barkote Block has attracted attention of ornamental fish collectors and is fondly addressed as Ornamental Fish village.

The district administration has extended financial assistance and organizational support through Odisha livelihood mission.

### **Integrated Farming Systems (IFS)**

Integrated farming systems can be conceptualized as a 'third way' or middle course for agriculture between conventional and organic farming. The poor rain fed farmers with small land holdings mainly concentrate on crop production with erratic rainfall and degraded soil fertility and health. Experiment was conducted through Front Line Demonstration Programme in village Bangalimunda by combination of crops life: maize + poultry (50 birds) + paddy straw mushroom (100 beds) + vermicompost + off-season vegetables (tomato, brinjal, chilli, cabbage and cauliflower).

### **Natural Calamities, Disaster Management, Climate Change and Impact on Agriculture**

Success of Kharif crops mostly depends on the even and adequate rainfall distribution during June to end of September of the Year. But as per reports, it is revealed that after 2000 in every alternate year there is occurrence of either drought or slight flood situation in some of the areas through sand casting in crop fields. Drought situation and uneven distribution of rainfall lead to failure of crop production and loss of yield. It prevails due to climate change. Due to rapid climate change farmers are able to come up with with crop planning. Out of total quantum of Annual Rainfall received, 80percent is received in a span of 4 months (June- Sept) which

quantitatively enough for most of the crops need. However the aberration in temporal and spatial distribution makes the crop vulnerable to drought as well as flood. Such adverse effect on crops can be combated in two ways:-

(i) Preventive Measures

(ii) Contingent Plans and Drought Ameliorative Measures.

### **Drought Prevention Measure**

Among the different Kharif crops the upland rice is most affected by drought. Therefore diversified land use with low duty non- paddy crops is the best option in these lands. In real sense the technology available to mitigate drought is mostly preventive in nature and require early planning. Some of the important preventive measures that can be adopted early in the season to mitigate the impact of drought and augment sustainable crop production are;

- a. Data base of the farmers should be maintained at the Government level for the selection of beneficiaries for real time supply / Distribution of seeds and Fertilizer at the time of need.
- b. Positioning of seed, Fertilizer and other inputs should be regularly monitored for effective supply to the farmers at the time of need.
- c. Give importance for raising fodder crops in upland and the drought may be considered as an opportunity for livestock production.
- d. Scientist of SAU, KVKs and Central Government and Agricultural officers from State Government may be involved in regular inspection; monitoring and managing the drought situation with each one given responsibility for an area say a block.
- e. Application of FYM in upland and medium land should be encouraged to conserve more moisture in the root zone.

### **Drought Amelioration Measures and Contingent Plans**

There are 3 distinct period for Kharif season relating to crop growth stage and associated farm practices. Depending on the rainfall onset and pattern of distribution, seven type of scenario have been projected and required contingent measures have been suggested.

Much has been done. Yet much is to be done in this sector.

### **Early Season Drought (June 10 to July 31)**

Scenario 1:- Early onset and sudden stoppage of monsoon.

Scenario 2:- Late on set, up lands not covered till mid- July.

#### **(a) Mid- Season Drought (August-1 to Sept 15)**

Scenario 3: Non paddy crop in upland affected,

Scenario 4:- Beushaning of rice delayed,

Scenario 5:- Transplanting of rice delayed/ Seedling overage.

Scenario 6:- Beushaning / Transplanted Rice affected at early vegetative stage.

#### **(b) Late Season Drought (Sept- 16 – Oct-31)**

Scenario 7:- Medium to Low land rice affected at vegetative/ reproductive stage.

### **Major causes of crop loss and compensatory action taken**

Major causes of crop loss during Kharif Seasons due to primarily moisture stress condition/ Drought situation at critical stage of the crop i.e panicle initiation and ripening stage and other secondary reason is due to attack of pest and disease at different growth stage even if at productive stage of the crop.

### **Compensatory measure for moisture stress / Drought situation**

Providing assistance for agriculture input subsidy to the affected farmers after joint inspection / survey by the staffs of Revenue and Agriculture Department as admissible time to time by the Special relief Commissioner under Disaster Management Scheme.

Providing Minikits/ Demonstration to the farmers suffered Crop loss through Agriculture Department. Supply of pump set under subsidy scheme

Relaxation of required crop loan instalment either extending the repayment phase or totally exemption of loan in severe cases.

## CHAPTER- VI

# BANKING, COMMERCE, TRADE AND BUSINESS

### History

Eventhough Bamanda State had its own printed paper currency introduced during the reign of Sir Basudeb Sudhal Deb, the history of banking in Deogarh district is traced back only to the year 1940-1942 when the Raja Bhanuganga Tribhuvan Deb established a bank. There was no organized banking before that in Deogarh district. Not much is known about the first bank and the nature of business conducted by the bank. The usual pattern of money lending, and other credit systems like mortgage and pawning was conducted by village moneylenders like Saukars, Mahajans and Gountias who were unchallenged in their areas for generations together before 1945. In 1945 a Central Cooperative bank was opened in Sambalpur district and had within its ambit the Bamanda state also, more so the Kuchinda area. After merger of Bamanda state with Odisha in 1948 Deogarh became a Sub-division of Sambalpur and the cooperative bank started its operations in Deogarh area in a small scale. The moneylenders, Sahukars and Mahajans continued to be the basic creditors till 1978-79 controlling the bulk of lending in the rural area. As they operated with their own funds and of interest realisation; the people had the easy access to the creditors in comparison to the institutionalised banking system. These creditors were operating without ever coming within the purview of the Reserve Bank of India and other regulations. In some measure such money lending business still exists in certain pockets of the district, but in a surreptitious manner.

There was another class of moneylenders 'the Kishtiwalas' or the Kabuliwalas, the old moneylenders from Kabul. They went from village to village to lend small amounts to the cultivators and others in need of seasonal finance at exorbitant rates of interest. These moneylenders did not require any collateral or any other security and applied brute force for realization of their debt. The general poverty due to deficit agricultural economy, the rural poor was compelled to easy access the creditors for their requirement.

Prior to the opening of grain-golla Co-operatives in 1955, the village money lenders, Gountias and others having some surplus funds were lending paddy loans @ 50 per cent interest in kind and also asking the borrowers to do some agricultural operation free of wages giving them some food for the working days. The grain-gollas provided paddy loans at lower rate of interest viz. 25 % and in some cases 20% for which the

moneylenders were compelled to reduce their rate of interest. The Marwari traders also were issuing cash loans with understanding that the cultivators will supply their produce after harvesting at the rate fixed by the traders which was always lower than the prevailing market rate. Money lending by these groups of moneylenders however gradually reduced due to the opening of the co-operative societies who provide loans both in cash and kind. These Co-operative societies also linked the credit with marketing of produce.

In the year 1967 the Primary Land Mortgage Bank opened its branch at Deogarh providing long term loans to the agriculturist for improvement of land. The Sambalpur District Central Cooperative Bank after merger with the Bargarh Central Cooperative Bank in 1956 started operating in Deogarh having 3 branches. At present this bank is operating very successfully through its 29 Primary Cooperative societies spread over 60 gram panchayats in all the three Blocks in the district. The Sambalpur District Central Cooperative (SDCCB) bank is one of the major players in economic development of the poor in the district. It is also providing cash credit to non-agricultural credit societies.

The Deogarh Regional Marketing Cooperative Society was formed in the year 1961-62 with 96 members and owned a share capital of Rs.Rs.2,27,390/-. The Society has the area of operation having 8 to 10 Panchayat Samitis comprising 50 to 60 grain-golla Cooperative Societies. The Regional Marketing Society are mainly engaged in distribution of chemical fertilizers to grain-golla cooperative societies who in turn supply these commodities to producers of their areas. The Regional Marketing Cooperative Society also is engaged in procurement of rice and paddy under state trading scheme and functions as authorized dealers in cement, wheat, consumer goods and certain agricultural inputs like fertilizer, insecticide and pesticide, etc.

Details of Deogarh Regional Marketing Cooperative Society is detailed below as on 1961-62 as under:

(in Rs.)						
Members	Share Capital	Reserve fund and others	Deposits	Borrowings	Purchases	Sales
96	2,27,390	14,047	873	32,847	99,010	2,39,739



The types of Cooperative Societies functioning in the district at present are as under:-

Sl.No	Type of Co-op. Society (CS)	Total
1	PACS	29
2	RCMS	1
3	CARD BANK	1
4	SDHBCS	1
5	FMCS	2
6	VGCS	1
7	Credit CS	1
8	ST and SC MPCS	1
9	Total	38

### **Advent of Commercial Bank**

Consequent upon nationalization of banks in 1969, commercial banks gradually started opening of branches in different parts of unbanked areas. UCO Bank opened its first branch at Deogarh on 29.05.1970, followed by the State Bank of India on 30.11.1976, Central Bank of India on 07.07.1983 and also the Bolangir Anchalik Gramya Bank (Now Utkal Garmeen Bank) opened its first branch in Deogarh on 19.12.1883.

Presently 12 Public sector bank with 25 branches, one Gramin bank with 8 branches and 3 private sector banks and Sambalpur District Cooperative Bank (SDCCB) with 3 branches are operating in the district. Total of 39 branches are operating in the district. Two more banks viz. Allahabad Bank and Syndicate Bank have completed their survey and likely to open the branch shortly in the district. In addition, there are 29 cooperative Societies operating under 3 SDCCB spreading all over the three blocks in the district contributing to the economic development of the people of Deogarh district. The State Bank of India with 6 branches is the Lead Bank in the district. In addition to this there are 41 CSPs operating in the district and 31 ATM counters opened by 9 public sector bank and two private sector banks. There is also a Cash Deposit Machine (CDM) opened by the State Bank of India catering to the banking need of the people of the district.

The Details of branch network with the performance in short as on 31.03.2015 has been shown in table below.

**BANKING AT A GLANCE IN DEOGARH DISTRICT  
AS ON 31<sup>ST</sup> MARCH- 2015**

PARTICULARS	Mar-15				
TOTAL NO. OF BRANCHES	38				
a	Rural Branches	22			
b	Semi Urban branches	16			
c	Urban branches	0			
BRANCH NETWORK	38				
a	Public sector Branches	25			
b	Private Sector Banks	2			
c	RRBs	8			
d	Co operatives	3			
e	Cooperative Societies	29			
f	Others	0			
	PSB	Pvt.	RRB	SDCCB	
Total Deposits	523.83	31.65	64.90	113.73	734.11
Total Advances	135.07	9.69	30.90	107.31	282.97
Total Business	658.90	41.34	95.80	221.04	1017.08
Credit Deposit Ratio In %	0.26	0.31	0.48	0.94	0.39
Total Priority Sector Advances- Outstanding	109.35	3.40	28.04	106.11	246.89
% Of Ps Advances To Total Advance	80.96	35.09	90.74	99.00	87.25
Total Agl Sector Advances Outstanding	56.19	0.88	18.37	97.50	160.18
Cd Ratio	26	31	48	94	39

**Share Of Different Banks**

Percentage Of Agriculture Advances To Total Advance				56.61%
Achievement Under ACP 2014-15 (%)	ACP Target	Achievement %		
TOTAL ACP-2014-15				
A	206.99	172.47	83.32	
B	Priority Sector	201.61	163.46	81.08
C	Agriculture	157.32	130.29	82.82

The details of the performance of these banks as on 31.03.2015 under different schemes has been given separately in Annexure-II .

The broad sector-wise projections for 2015-16 are indicated below.

**(Rs.in Lakh)**

Sl. No.	Sector / Activity	Financial Projections for 2015-16
1	Crop Production, Maintenance and Marketing	10705.38
2	Term investment for Agriculture and Allied Activities (Agri., Term Loan)	7188.39
3	Total investment under Agriculture and Allied Activities (1+2)	<b>17893.77</b>
4	MSME Sector including Food and Agro processing	1560.93
5	Other priority Sector (OPS)	4556.00
	<b>Total Priority Sector (3+4+5)</b>	<b>24010.70</b>

The details of sector wise financial projections for the financial year 2015-16 is as under:-

Sr. No.	Sub-Sector	Financial Projection for 2015-16
1	Crop Production, Maintenance and Marketing	10705.38
2	Water Resources	817.82
3	Land Development	234.94
4	Farm Mechanization	2108.34
5	Plantation and Horticulture	999.24
6	Forestry and Waste Land Development	196.89
7	Animal Husbandry – Dairy Development	404.21
8	Animal Husbandry – Poultry Development	282.79
9	Animal Husbandry – Sheep, Goat and Piggery Development	968.24
10	Fisheries Development	426.87
11	Storage Godowns / Market Yards	672.00
12	Renewable Sources of Energy and Waste Management	32.40
13	Other Activities	44.65
14	Total Term loans for Agriculture ( 2 to 13)	7188.39
15	Total investment under Agriculture (1+14)	17893.77
16	Food and Agro Processing	208.80
17	MSME Investment and Working Capital for Development of Enterprises and Self Employment	1352.13
18	MSME Total (16 + 17)	1560.93
19	Other Priority Sector	4556.00
20	Grand Total (Total Priority Sector ) (15 + 18 + 19)	24010.70

### **Pradhan Mantri MUDRA Yojana (PMMY)**

The PMMY has been launched by the Prime minister on 08.04.2015. For popularizing the scheme for benefit of the small entrepreneurs under SME segment throughout the country the Mega Credit camp under MUDRA has been conducted from 25.09. to 02.10.2015.

Under the scheme there are three categories of loan that can be sanctioned to the prospective borrowers i.e. i) Sisu up to Rs.50,000/-ii) Kishore above 50,000 to 5,00,000/- and iii) Taruni above 5,00,000 and up to 10,00,000/-The special benefit under the scheme is that it does not require any third party guarantee and collateral security.

In Deogarh district the Mega MUDRA camp was held on 29.09.2015 and about 500 prospective borrowers have participated in the camp. Total number of loan sanctioned on the day was 178 to the tune of Rs.86.27 lacs and total number of MUDRA loan sanctioned from 01.09.2015 to 01.10.2015 was 346 and amount sanctioned was Rs.129.61lacs.

### **Pradhan Mantri Jan Dhan Yojana (PMJDY)**

There are 60 GPs in the district having 75,452 households as per 2011 census. The survey conducted by the banks under PMJDY has revealed that out of 75,452, households 63,569 households were having at least one bank account. Another 11,883 accounts have been opened under PMJDY during the survey covering all households in the district.

There are 51 Sub-Service Area(SSA) in 60 GPs in the district out of which 17 SSAs have been covered by 17 bank branches and 14 SSAs have been covered by the BC/CSPs of different banks.

### **Insurance**

There is only one Sub Office of Life Insurance Corporation of India in the district dealing exclusively with life insurance business catering to the need of the entire district. However, after financial reform in the year 1991-92 and opening of the economy, number of private players in the field of insurance has come up in the district. At present the commercial banks including private banks are undertaking both general/ health and life insurance business covering live stocks, shop keepers(Fire theft and robbery/burglary etc.) vehicle insurance etc.

As per information received for LIC of India Sub Office, Deogarh, there is no branch opened at Deogarh and the sub office is functioning under branch. The sub office is only meant for collection of premium.

Accordingly the number of policy as on 31.03.2015 stands at 2985, The sum assured is for Rs.57,13,28,731/- and Premium amount collected during this period is Rs.4,70,46,257/-

The performance of the LIC as on 30.09.2015 is as under.

No. of Policy- 1047

Amount of Premium collected- Rs. 2.12 crs

Sum assured is Rs. 29,56,86,650/-.

There is another business centre of Oriental Insurance Co .Ltd. Operating since March 2013 under the Kuchinda mostly covering the general insurance (motor vehicles, Shop Keepers and health insurance). As on 31.03.2015 the office has collected a sum of Rs.20.77 lakhs as premium

from 547 number of policyholders. As on 30.09.2105 the OIC has collected Rs.8.55 lakhs as premium from 213 number of policyholders.

## **Crop Insurance**

Government of Odisha has been implementing the National Agricultural Insurance Scheme (NAIS), otherwise known as Rastriya Krushi Bima Yojana (RKBY) through all the banks and PACS/LAMPS to provide insurance coverage to both loanee and non-loanee farmers for the notified crops during the crop seasons. The scheme is implemented by the Agriculture Insurance Company of India (AICI). The insurer settles the claims against the crop loss on the basis of yield data. In Deogarh paddy is the notified crop for the both Kharif and Rabi season for which the Gram Panchayat is the unit area. Besides, banana has been declared as notified crops for Kharif in 2015 for which unit areas are Barkote and Reamal blocks.

## **National Agriculture Insurance Scheme**

Objectives of the NAIS are to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases, to encourage the farmers to adopt progressive farming practices, high value crops and higher technology in agriculture, and to help stabilize farm income, particularly in disaster years.

All farmers growing insurable notified crops are eligible to be covered under NAIS on the following basis.

a) Compulsory basis: All farmers growing insurable notified crops in the notified defining areas and availing crop from Financial Institutions within stipulated time limit i.e. Loanee Farmers.

b) Voluntary basis: All other farmers growing insurable notified crops in the notified defining areas (Non-Loanee farmers) that opt for the scheme. Those farmers desirous of joining the Scheme are to fill up Proposal Form of the Scheme and submit the same to the branch of a Commercial Bank (CB) or Regional Rural Bank (RRB), or PACS (DCCB) with the requisite insurance charge/premium amount after opening an Account in their name or in an existing Account in their name. The functionaries in Branch/PACS shall assist farmers in completing the Proposal form and provide necessary guidance. While accepting the Proposal and the insurance charges, it shall be the responsibility of such Branch / PACS to verify the particulars of sum insured, maximum limit etc. The Branch / PACS shall thereafter consolidate these particulars and send them to the respective Nodal points.

**Unit Area for Crop Insurance are as follows:**

1	Paddy	All Gram Panchayat/ Municipality/NACs
2	Banana	Block (Barkot and Reamal)

**Yield Data**

The yield data in respect of paddy, ground nut, and maize and jute crop are furnished by the Director, Economics and statistics; in respect of Niger, Cotton and red gram crops by the Director, Agriculture and Food production and in respect of Turmeric, Ginger and Banana crops by the Director, Horticulture to the Government In Cooperation Department well in advance so as to enable the Cooperation Department to furnish data to the Agriculture insurance Company within the stipulated time limit.

**Claims**

Indemnity claim is settled only on the basis of yield data furnished by the State Government in Cooperative Department based on requisite number of Crop Cutting Experiments (CCEs) conducted under General Crop Estimation Survey (GCES). Four Crop Cutting Experiments (CCEs) are taken up per Gram Panchayat for paddy for estimation of yield data as per the direction of Government of India, Ministry of Agriculture and Cooperation.

**Illustration of settlement of claim**

If the 'Actual Yield' (AY) per Acre of the insured crop for the defined area on the basis of requisite number of Crop Cutting Experiments (CCEs) in the insured season, falls short of the specified 'Threshold Yield' (TY), all the insured farmers growing that crop in the defined area are deemed to have suffered shortfall in their yield. The Scheme seeks to provide coverage against such contingency.

'Indemnity' is calculated as per the following formula:

Shortfall in yield multiplied (x) by sum Insured for the farmer  
Threshold yield

Shortfall = 'Threshold Yield – Actual Yield' for the Defined Area

Threshold Yield = Percentage of Average Yield or Level of Indemnity.  
For example Level of Indemnity for Paddy is 60% of Average Yield

**Sum Insured**

For the loanee farmer the Sum Insured is cent percent of the crop loan at normal premium rate. Sum Insured can be up to the value of the Threshold Yield (TY) at the same normal premium rate. Further there is option to cover up to 150% of the average yield (AY) of the crop, on payment of premium at actuarial rate for the differential amount between value of loan

amount / TY and 150% of AY and in case of non-loanee farmers, the limit of coverage is up to threshold yield (TY) value at normal premium rate with an option to cover 150% of the average yield (AY) on payment of premium at actuarial rate for the differential amount of Sum Insured.

### **Subsidy**

The premium subsidy for the small and marginal farmers is 10% of the gross premium equally shared by Central and State Government.

### **Regulated Market Committee, Deogarh**

The Regulated Market Committee, Deogarh has been established by the State Government vide Notification NO.8206 dtd. 6.5.1994 as per permission of Sec-3 of OAPM Act, 1953. The Market Committee started functioning from dated 04.01.1995.

The aim and objective of establishment of Deogarh RMC is to provide better regulation of buying and selling of Agricultural produces and to ensure remunerative prices to the farmers. The Market area of the Deogarh Market Committee confined to 60 Gram Panchayat and one Municipality comes under 3 Blocks i.e. Tileibani, Barkote and Reamal covers the entire district of Deogarh.

The following commodities have been declared as Notified commodities.

1. Paddy
2. Rice
3. Maize
4. Mung
5. Biri
6. Kulthi
7. Niger
8. Ground nut (shelled or unshelled)
9. Mustard
10. Sal seed
11. Cattle
12. Sheep
13. Goat
14. Mahua Flower
15. Sal leaf
16. Kendu leaf

## Market Yards and Check gates

At present one Block level market yard has been established at Baniakilinda under Tileibani Block. There are 3 no. of check gates functioning under the control of RMC, Deogarh. One each is located at Golabandh, Tileibani and Budhapal respectively.

## Weekly Haats

The RMC, Deogarh is managing 3 no. of weekly Gram Panchayat Hats at Tileibani, Danra (Barkote) and Kundheigola.

The fund position of RMC, Deogarh as on 31.09.2015 is as detailed below:

Sl.No.	Name of the Bank	Type of deposit	Number of Accounts	Amount available as on 31.05.2015.
1	SDCCB, Deogarh	1yr.fixed deposit	17592	3462031
2	SDCCB, Deogarh	SBD	10231	26175
3	SBI, Tileibani	SBD	01100050022	734601
4	CBI, Deogarh	SBD	2128552760	8291800
5	CBI, Bamparda	SBD	2311173024	5687919
6	UGB, Deogarh	SBD	12086042283	31292
8	UnitedBank of India, Deogrh	SBD	1699010026804	6600389

## Paddy Procurement

The food and procurement policy has been implemented in Deogarh district from 2002-03. Since then RMC, Deogarh is participating in the paddy procurement programme actively. The last 3 years income from paddy procurement is furnished below.

29 no. of PACs has procured paddy at 37 PPCs under Deogarh district for kharif season 2014-15. RMC, Deogarh has provided infrastructure i.e. grading equipment, other accessories, tarpaulin and polythene to all the PACs.

Year	Quantity procured in quintal
2011-12	3,35,677.00
2012-13	3,81,069.25
2013-14	2,62,000.00
2014-15	286977.58

## Infrastructure Facility Provided

R.M.C. has provided infrastructure facility in Tileibani haat and Danra haat in Barkote block. In Tileibani Haat there is a Farmers Information Centre, a bore well, 10 shop rooms and 4 open platforms. Likewise, in Danra Hata there are 2 covered platforms, 2 open platforms and a 250 MT godown.

Despite being a district with no major industry, economy in the rural, agrarian and co-operative sector is quite comfortable due to enthusiasm of the people and efforts of the delivery agencies in Deogarh district.



## CHAPTER – VII

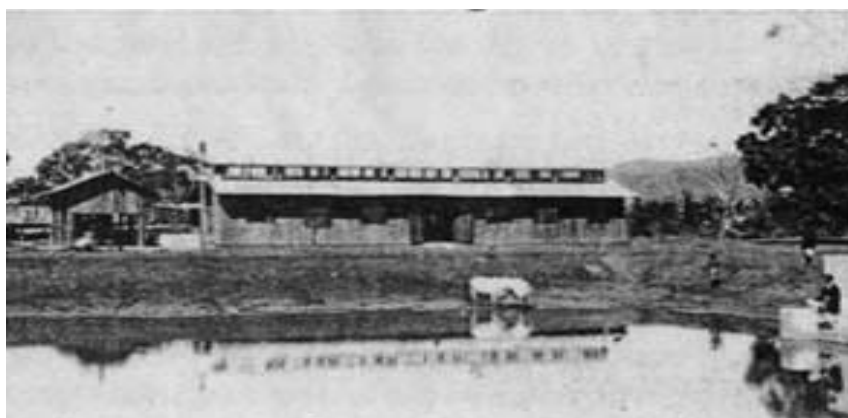
### INDUSTRY

#### Industry in the Past

Agriculture has been the main stay of the people in Deogarh district. Other than agriculture forest has been the major natural resource, which generates sizeable revenue from the district. Industries of the district in the past were mostly small domestic and cottage units run manually by traditional village artisans as a part of their caste and family trade based on ancestrally acquired skill to cater to the daily needs of the locals. Later part of the 19<sup>th</sup> century and early 20<sup>th</sup> century, some semblance of industry in the form of a textile unit and a sugar factory, both located at Rambhei were established at the initiative of the visionary and farsighted feudal chiefs.



**The Sugar Factory at Rambhei**



**Spinning mill at Rambhei, Deogarh  
Built by Raja Sachidananda Tribhuban Deb**

## Evolution of Industries in the District

Bamanda has been the land of the primitive tribes, even though under the rule for centuries by the feudal royals of various dynasties. Having remained for long in the inaccessible hinterland of Odisha new economic ideas were rare. The glory of Bamanda considered as the citadel of creative artists dates back to the 5<sup>th</sup> century CE. When the Matharas ruled over this tract. For want of any credible record, it is difficult to ascertain the economic system including that of industry in the distant past. The Ganga rulers, who had a continuous rule since the mid-sixteenth century, brought about development on almost all fronts. Deogarh, attained all-round prosperity during the reign of Raja Basudev Sudhal Deb, the visionary and most enlightened among the rulers of this dynasty. With the setting up of the Jagannath Ballav Printing Press in 1886 and publication of a weekly magazine the “*Sambalpur Hiteishini*” in 1889, he initiated the process of mechanization and industrialization of his state. He had promulgated paper currency in his state, which helped easier money transaction in business and trade replacing the old and unreliable barter system.



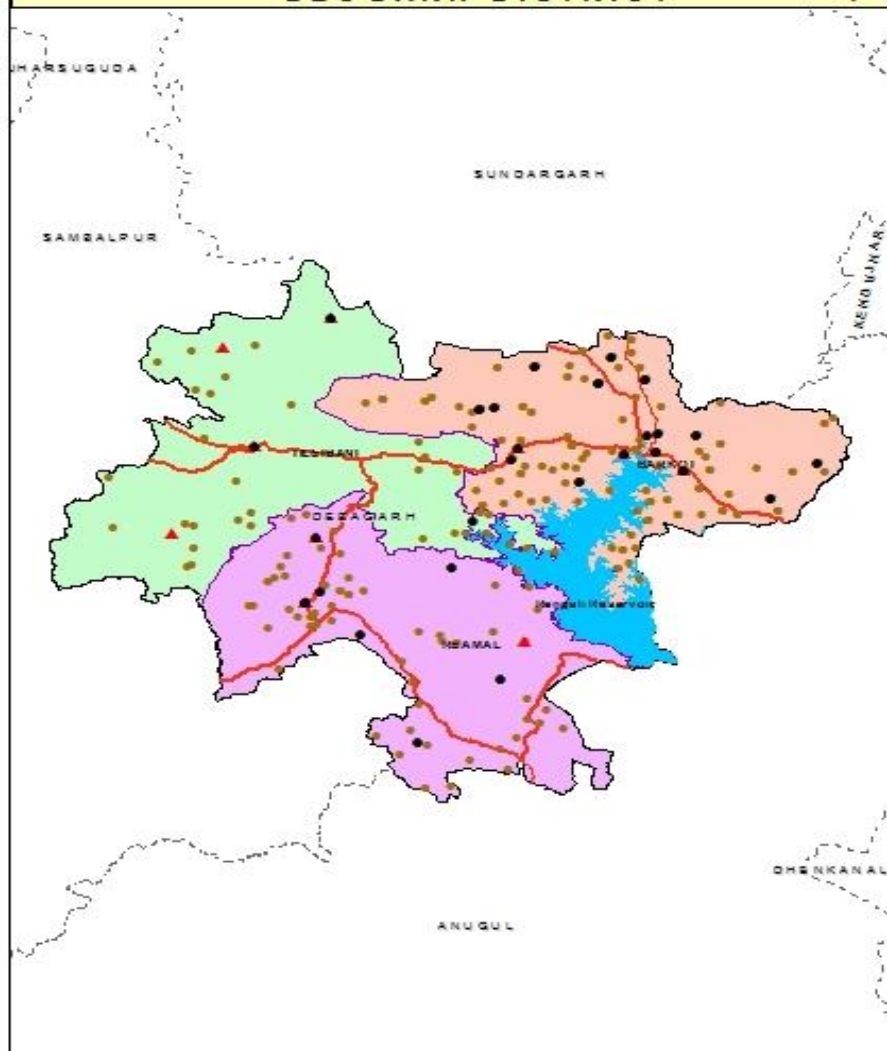
**Jagannath Ballahaba 'Hiteishini' Press (1886)  
Built by Raja Sir Basudev Sudhaldev**

## Electrical Power production and Industrialisation

After Raja Basudev Sudhal Deb, his equally illustrious son Raja Satchidanada Tribhuban Deb undertook the industrialisation of the state with right earnest. The most remarkable and pioneering project of his reign was production of hydro-electricity by harnessing the Kurodkot waterfall in the year 1916.



# INFRASTRUCTURE MAP DEOGARH DISTRICT



## REFERENCE

- INDUSTRY
- ▲ COLLEGE
- SCHOOL
- BANK
- NATIONAL HIGHWAY
- STATE HIGHWAY
- RAILWAY LINE
- DISTRICT BOUNDARY
- BLOCK BOUNDARY
- RESERVOIR / DAM

## SCALE



## INDEX MAP



## **Minerals and Mineral processing**

Though minerals like china clay and iron ore of low grade were available, only china clay was used for manufacturing household articles in the earlier days. One mineral-based industry was set up at Deogarh during the reign of King Satchidanda. The industry was called '*Bamra Pottery Works*'.

After the formation of Deogarh district three small scale mineral processing units have been established in the private sector in the district namely M/s Maa Samaleswari

Export Inds, at Dhatukipada, Kadapada, M/s Ispat Aloys Pvt. Ltd. at Ambakata, Vijaynagar and M/s Attitude Alloys (P) Ltd., at Gurudukhaman, Vijaynagar.

## **Cottage, Small and Medium Industries**

During the feudal rule almost 90% of dwellings in Deogarh town and nearly all residential houses in villages were thatched with roofs of straw or country-made earthen tiles supplied by the local artisans of the *kumbhar* caste. During the reign of King Satchidanada Tribhuban Deb, a tile factory at the out skirt of Deogarh was set up to mould and supply flat baked earthen tiles of good quality to people and thus save the houses from heat, rain and fire hazard.

King Satchidanada had also set up an ice factory at Deogarh in 1910. During summer, school students were being taken round the factory to acquainted them with the process ice making. The '*Jagannath Ballav Press*' which was set up Sir Basudeb Sudhal Deb was a hand press operated manually with limited efficiency. Subsequently it was mechanised and after availability of electricity was converted to '*Hitaisini Electric Machine Press*' for better and faster output.

## **Traditional Handicrafts**

Alongside agriculture, King Satchidanada had given importance to sericulture and rearing of mulberry. From the cocoon he encourage and patronised had reeling of silk thread and preparing silk clothes at the textile mill at Rambhei. He had made provision for training of weavers and artisans. For encouragement of handloom industries King Satchidanada had set up a handloom production unit in Deogarh Jail for which he had brought two master handloom weavers and handloom designers from Srirampur of Bengal. The inmates of the jail were engaged in weaving of various handloom items like coarse *dhoti*, *gamuchha*, *dureeh*, and even finer silk fabrics as a part of their productive task while serving their term of

conviction. Keeping in view the demand of handloom products, he had set up the mechanised textile mill at Rambhei in 1906. The handloom and textile industries were managed by one master weaver named Surendranath Guha, a man from Bengal. Going by the success of the textile mill venture, which had started with just one unit, five more units were added by 1908, within two years from its initiation to increase the output and due to growing demand of the market. He had also given importance for bee keeping and collection of honey for which he had brought queen bees from Italy.

In 1906, King Satchidanada had established one pottery industry called ‘*Bamra Pottery Works*’ at Deogarh. To make quality and designer pottery and terracotta

items from china clay he had brought one Purna Chandra Mandal, an artisans of Bengal to train and supervise the local artisans. The products were mostly used inside Bamanda state. The terracotta artists and craftsmen also moulded a china clay statuette of King Baudeb Sudhal Deb, a replicas of ‘Menaka’ and ‘Shakuntala’ in imitation of the famed painting Ravi Verma of Travancore royal family.

In many parts of Deogarh district ancestral industrial activities like pottery, bamboo craft, terracotta, dhokra casting and even cement tile and other castings are still in vogue. In tune with time, the artisans have taken to contemporary style and requirement into consideration to survive in the market economy and influx of mass produced items. In Reamal a pottery unit is producing clay-made water filters as a substitute of the age old earthen pitcher and is in great demand for its novelty and artistry. After the formation of new district, 220 artisans of Bamparda, Reamal, Badchhapal areas have been trained and financially supported for their livelihood.

The table below gives numerical details of industry in Deogarh district

<b>Sl. No.</b>	<b>Category of Industries</b>	<b>Nos.</b>
1.	Cottage and Handicraft	200
2.	Micro	212
3.	Small	07
4.	Medium	03

In comparison with the neighbouring districts, there are no major industries in Deogarh district which has impacted the general economy and income of the people. This too has resulted in migration of artisans and other work force from out of the district in search of income and alternative livelihood.

Agriculture is the most preferred occupation of the people. Horticulture also is well accepted by the advanced farmers. The district produces good quality mango, orange and lichi in season. Agro based industries would be most suitable for this area. Fodd processing and packaging are avenues, which need exploration to provide value for money to the horticulturists. Herbal plantations are picking up and commercial scale bio-farming is has also been attempted y some farmers with the help and guidance of Krushi Vigyan Kendras in the district. More attention and impetus is required to encourage an develop agro-industries in the district.

Similarly, forest resources may also be considered in industrial terms. As early as in 1898 the Administrative Report of Bamanda state makes a mention of this in the following words, "There are large saw mills in the state and a considerable business is done.

This brings much profit to the inhabitants of the state, who are enabled to earn good wages by labour and by catering the timber to the railway". Forest depletion cannot be encouraged. At the same time forest wealth need monetised through innovative industrial and commercial planning by locally processing minor forest produce including kendu leaf.

### **Hospitality and Tourism Industry in the district**

Deogarh was known as a benign host of visitors and tourists during the days of the Raj. The visitors were mostly guests of the royalty, among them were many authors, poets, scholars and artists. They were lodged in royal splendour in the vicinity of tye Pradhanpat waterfalls. Basant Nivas and Lalit Basant are two majestic monuments perched on the Padhanpat hills bear testimony to these events. With the merger of the state of Bamanda such events became things of the past. Still Deogarh attracts a good number of tourists and picnickers almost all through the year. The town located on the Mumbai-Kolkata National Highway also receives good number of long distance travellers and traffic who make night stopovers in the town.

Apart from government accommodation, there were no worthwhile place for lodging and boarding in the town or elsewhere in the district. This has resulted in low growth or almost no growth in the hospitality and hotel industry sector. The occasional business traveller or infrequent visitor stays at the few hotels like "*Hotel Mamata Palace*", "*Hotel Rounak Plaza*" and "*Hotel "Mamata"*" that provide bare lodging and boarding of the rudimentary type with a total of about sixty rooms including dormitories with nearly 150 beds .Deogarh has several historical places and natural heritage sites which offer immense potential for development. Two sites in the district, the waterfalls at Padhanpat and Kurudkot are enlisted as places of tourist interest. There are enough scope for eco and adventure tourism in the

district because of the lofty mountains with stiff cliffs and dense forest with varied flora and fauna. Hospitality and tourism industry deserves more attention in the district.

### **Labour Laws, Trade Union, Labour Welfare**

Deogarh is a small district and has no industry worth calling. People of this district mostly depend on agriculture for their livelihood. The poor are wage earners and work as farm labour, building and other construction labour, kendu leaf pluckers, brick layers and brick-kiln workers, beedi makers, etc. Laws which relate to the labour class either in the industrial sector or other activities take effect in the district to safe guard the interest of the working class are Minimum Wages. Act, Payment of Wages Act, Equal Remuneration Act, Odisha Building and Other Construction Workers Act, Contract Labour (R and A) Act, Bidi and Cigar Act and Child Labour Act, etc.

There are no cases of industrial dispute in this district. There appears to be cordial relationship and mutual cooperation between the workers and the employers of different establishments functioning in the district. There are very few cases when the aggrieved workers lodge complaints on non-payment or less payment of wages with the labour court. On the whole, there is industrial peace and harmony in this district.

### **Protection of Labour**

The debate over labour market regulations in India is highly polarised. Advocates of labour market deregulation suggest that the labour law framework in the country confers disproportionate powers on workers and trade unions in the formal sector of the economy, resulting in industrial conflicts and poor productivity. We find that even pro-worker labour laws at best offer only weak protection to workers and unions in the formal sector establishments. Unions find themselves increasingly vulnerable to employe's hostility.

In Deogarh district the Labour Department has kept vigilant eyes on the activities of the employers and employees. Much stress is been given to protect the interest of the workers from physical, mental and financial exploitation of employers by implementing various labour laws. The workers of this district are unable to raise their voice against any exploitation due to illiteracy and poverty. They are not united and feel lonely as a result of which there is least organisation of Industrial Trade Union in this district. It needs much awareness among the workers towards their rights and responsibilities.



In the erstwhile state of Bamanda people who were subjects of the state were engaged in obligatory labour for the following activities free of wages.

1. Construction and repairing of house of the staff and other buildings of the State.
2. Supply of firewood to the royal house hold, jail, hospital and powerhouse for electricity generation.
3. Construction and repairing of roads connecting Deogarh and Bamara and other Tahasils.
4. Construction of barricades and fence for the State farms and gardens.
5. Engaged as '*haka*' during hunting expeditions by the King and his European guests and senior official.
6. To catch and tame wild elephants.

These abominable feudal practices have since been abolished and provided much relief to the people.

### **Legal Provisions for Interstate Migrant Workmen (Dadan)**

Raja Sir Basudeb Sudhal Debhad implemented an Act to regulate and prohibit the migration of labours from Bamanda. At that time according to the King migration of he labour to other state brought infamy to the State and reflected the incompetence of the administration in providing succour to its own subjects. He had prescribed penalty for persons found engaged in trafficking of labour.

### **Trade Unionism and Labour Welfare**

Trade Unions of workers in various trades is a phenomenon of the modern industrialized society. These are group of workers engaged in a particular trade for the purposes of securing better wages, shorter hours of work and improved conditions of labour. Generally, trade unions are affiliates of political parties in multi-party democracies. There are no organized trade unions in Deogarh district in the absence of any worthwhile industry.

Labour welfare is an important dimension of industrial relation, which includes overall welfare and wellbeing mechanism designed to take care of the employees. This in turn gives better output and increases productivity. This need not be confined to only monetary benefits nor be the responsibility of the employers alone, it can also be provided by the government, non government agencies and trade unions. Industrialization, mechanisation and globalisation have increased the importance of labour welfare in industries.

As a result of this, the construction workers of Deogarh district are availing different benefits like education assistance for children, bi-cycle and tools assistance, marriage expenses assistance, safety gear and material benefit, accident and death compensation and ex gratia, etc from the Odisha Building and Other Construction Workers Welfare Board. More than 2500 workers have benefited so far in this district through these schemes. Similarly, the bidi workers are also availing of different benefits from the Central Government like housing benefit, medical benefit and education benefit, etc.

### **Industrialization, Displacement and Rehabilitation**

There has been no displacement or related rehabilitation of the affected people due to industrialization, may that be massive mining operations or huge industries requiring large tracts of land. The Gohira Dam and the Rengali Dam are the only two projects which necessitated displacement of people. Those who were displaced were adequately compensated by allotment of reclaimed land and also by finance and employment provision.

## CHAPTER- VIII

# TRANSPORT AND COMMUNICATION

### Introduction

Deogarh district, which was a larger part of the former feudatory state of Bamanda, despite its cultural heritage and largely benevolent ruler, was considered inaccessible and derived the near-derogatory epithet '*Akhoj Bamanda*', *akhøj* being impregnable or inaccessible. This was due to the hostile terrain and difficult or almost nonexistent surface communication system. In course of time and with expansion of pliable all-weather roads and the advent of mechanised transport system now Deogarh district is approachable from all sides making easy movement of man and material.

### Evolution of Transport and Communication system in the District

During the princely rule, people usually travelled on foot and the aged, infirm and women who could afford by bullock-cart. Transportation of commodities was either by head-load, shoulder dual-sling baskets locally known as '*bhar*'. Even children covering distant places used to have such joy rides on both sides of the dual-sling contraption hanging from a bamboo pole for balance from the shoulder of the *bharua*, the 'carrier'. Distant travel was rare, unless it was for pilgrimage, festivities, and other social or family ritualistic, requirement and for matters of governance and of the state. The royals and affluent were travelling on horses, horse-drawn carriages, elephants, palanquins, '*dolis*', etc. on land and by boats of various utility in water ways. There were no bridges worth the name over rivers or rivulets. In some cases, fair weather roads were laid during dry months for crossing the rivers. In phases, bicycle and automobiles of various types and utilities arrived for personal and public use to meet needs of travel and transportation.

Raja Sir Basudeb Sudhal Deb purchased a motor car named the '*Penada*' in the year 1903, that being the first automobile to arrive in Bamanda state. Running on kerosene, the car was used for the Royal family members and the State guests. Thereafter, Raja Satchidananda Tribhuban Deb started the 'Bamanda Motor Service', a public transport company in the year 1914 at the capital town Deogarh. The king sent two artisans who were adept at mechanics, Bithal Nayak and Kanhyai Karigar to Calcutta (now Kolkata) for training in driving and minor automobile repair skills. They were followed by Mohan Deb, Gangadhar Deb and Narahari Karigar who received training in driving from the French Motor Company, Kolkata. This event was published in the '*Sambalpur Hiteisini*', a magazine coming out

from Deogarh in its issue of 25.07.1914. Thereafter, two numbers of lorry came to Deogarh from Calcutta Motor Company. The first passenger lorry motor started from Deogarh to Gobindpur (present-day Bamra Railway Station), a distance of 114 kms. On 09.01.1915. For one-way journey the fair was two rupees for each passenger. The lorry carried only fifteen passengers with their small luggage. The 'Sambalpur Hiteisini' in its issue of 09.01.1915 had published these details too as a news item.

### **Old time trade routes in the District**

The *Bengal District Gazetteers* in its 'Feudatory States of Odisha' part written by L.E.B Cobden-Ramsay, I.C.S and first published in 1910 in Chapter-III, describes about the state of surface communication prevailing then in the Bamra State in the following manner.

*"There is a good road from the Bamra railway Station on the Bengal Nagpur line to Deogarh, the headquarters, about 58 miles in length. This road carries a considerable amount of the large sleeper traffic of the state, especially from Sirid. The road continues from Deogarh as a fair surface road to the Talcher border: from Deogarh to Balam is a good road 11 miles in length on which there is one steel girder bridge. The old Sambalpur-Midnapore road traverses the state. This road is no longer of the importance if formerly was as the direct means of communication with the state: it is, however, bridged throughout the State over the small streams by rough, but strong, timber trestle bridges. The village roads are fair surface roads, and there is a road from Deogarh to the border of the Rairakhol state running on to Rampur, the headquarters of that State. The Bengal-Nagpur Railway passes through the north-eastern corner of the state with two stations, Garpos and Bamra, within its borders. The Brahmani river forms a means of communication for small open boats, but the presence of rocks and rapids renders the transport of goods on any large scale impossible. There are rest houses at Bamra Station, Kuchinda and Sirid. A telephone line runs from Bamra railway station to Deogarh and from Deogarh to Barkut, the headquarters of the tahsil (subdivision) of that name and to Sirgira. The Imperial post plies in the State, with sub-post offices at Bamra, and Deogarh and branch post offices at Kuchinda and Barkut, and letter boxes in school houses at the principal villages. There is a telegraph office at Bamra."*

Though in brief, this account by Mr. Ramsay-Cobden gives a fair account of not only the surface transport system by road, rail and waterways, but also about the post, telegraph and telephone systems prevalent in the Bamanda (Bamara) State.

After independence and with the merger of Bamanda state with Odisha road communication system improved to a great extent. Both the Government of India and the state government focused on expansion of the road network in Deogarh, which was a Sub-Division of Sambalpur district. Among the roads are National Highways (NH), State Highways (SH) and Major District Roads (MDR). In addition there have been roads built and maintained by Rural Development Department, Gram Panchayats under Panchayati Raj Department, and minor village roads locally named as 'Dharsa'. With the introduction and implementation of Pradhan Mantri Gram Sadak Yojana several Gram Panchayat and 'Dharsas' have been made all-weather roads with proper cement concrete surfacing with minor culverts and bridges wherever they did not exist in the past. The forest department maintains roads within the reserved forest area, which in turn connect to Major District Roads and village roads facilitating movement of forest personnel, villagers, equipment and material for forest maintenance and commercial harvesting of major and minor forest produce.

### **National Highway (NH) Network**

**National Highway- 06:** The principal road of the district is the National Highway No.6 which connects West of India with the Eastern part originating from near Surat in Gujarat and terminating at Kolkata. In Odisha this road traverses through Bargarh and Sambalpur districts and enters Deogarh after Jamankira Block of Sambalpur district and finally leaves for Pallahada in Angul district crossing the river Brahmani beyond Barkote. This is a broad black-top all-weather road. The important feeder roads of N.H-6 in Deogarh district are Deogarh-Bamra Road, Deogarh-Rairakhol Road, Naikul-Talcher Border Road and Balita-Bonei Road.

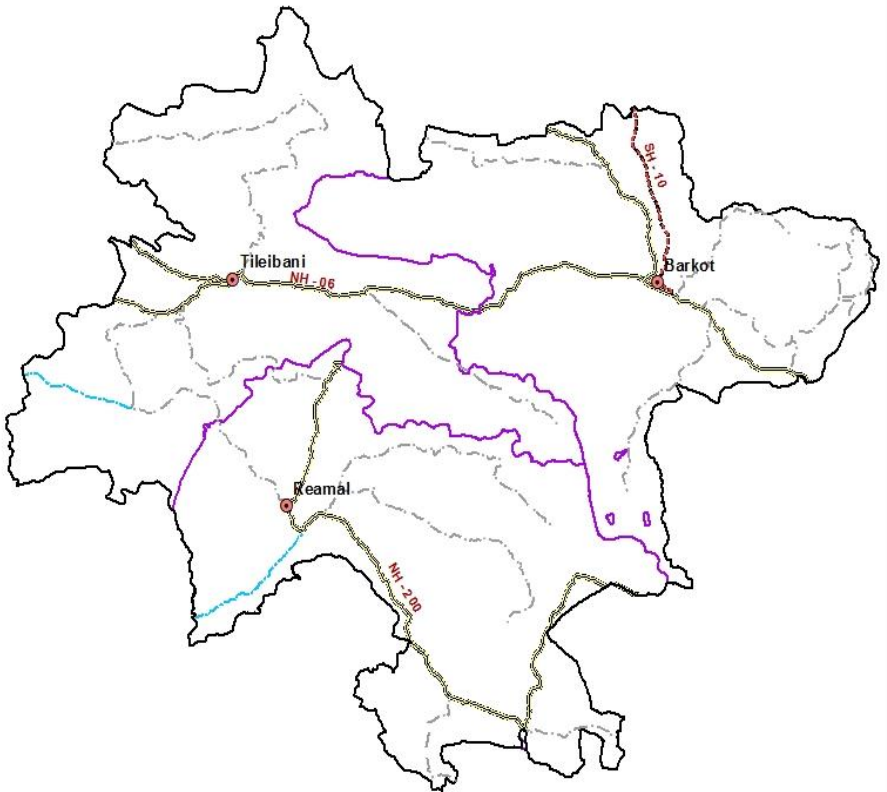
**National Highway- 49:** This runs between Kendejuri to Tileibani and Panchgochia chowk to Thianal via Deogarh, Balam, Kandhal, Barkote and Kalla. The length of the road within the district is approximately 90 kms.

**National Highway- 53:** This road within the district runs between Tileibani chowk to Kuskulia area via Kundheigola and Budhapal for an approximate distance of 93 kms.





**National Highway- 200:** This road originates from Raipur, the capital of Chhattisgarh state and enters Odisha at Kanaktora in Lakhanpur Block of Jharsuguda district and passes by Deogarh entering the district near Tileibani and joins N.H-05 near Chandikhol in Jajpur district.




# TRANSPORTATION MAP OF DEOGARH DISTRICT

0 3.25 6.5 13 19.5 26  
Kilometers



## LEGEND

-  National Highway
-  State Highway
-  Major District Road
-  Other District Road

-  Block Headquarter
-  Block Boundary
-  District Boundary

## State Highway (SH) Network

**S.H.10 (A):** State Highway No.10 originates from Sambalpur and runs up to Rourkela in Sundargarh district. S.H No.10 (A) is a branch road of S.H.10, which begins from Bahadaposhi chowk and runs up to Ambgaon covering a distance of 20 kms. Approximately.

**S.H.24:** Telimunda chowk near Reamal and Tarang are connected by S.H.24 covering a distance of 11 Kms.

**S.H.63:** This road connects Budhupal, Sendha and Nuapada covering a distance of approximately 7 kms.

## Major District Roads (MDR)

**MDR No.- 19:** This road starts from Telimunda on Major District Road No.-23 and terminates at Sarapal. The road, in length 32.40 kms. Was constructed before the 2<sup>nd</sup> World War to facilitate movement of troops and military hardware. It passes through Chhatabar, Katasarghat and Kundheigola.

**MDR No.- 23:** This fair weather road, constructed before the 2<sup>nd</sup> World War and in length 76.27 Kms. Starts at Deogarh and meets the N.H No.42 at Rairakhol. This road passes through Purunagarh, Riamal, Telimunda, Naktideul and Doincha to finally meet N.H. No.42 (Sambalpur-Cuttack Road) at Rairakhol.

**MDR No.- 31:** This all-weather road starts from National Highway No.-06 at Deogarh and proceeds up to Bamara Railway Station where it connects Kirei-Bamra road and Gariamal-Bamra road in Sudangarh district. This road is black-topped and is 87.74kms in length. It passes through Bhojpur, Kuchinda, Kesaibahal and Rangiatikra.

## Other District Roads:

The table below indicates the name, mileage and condition of roads:-

Name of the Road	Length	Condition	Fair-weather or All-weather
Balita-Bamur-Talcher border road	41.86 kms	Unmetalled	Fair-weather
Bamra-Garpos road	20.93 kms	Earth and <i>moorum</i>	Fair-weather

## Gram Panchayat and Village Roads

Under the old revenue system prevailing before the abolition of the Gaunti system, construction and upkeep of village roads or dirt tracts locally called *Dharsas* were the responsibility of the village community led by the

village headman called Gauntia or Makaddam. Under this system, the Deputy Commissioner or the District Collector as the case may be could get all village roads repaired by the Gauntias with contribution raised in terms of voluntary labour, money or material. After the abolition of the Gauntis and the democratic dispensation of the village Panchayats, the responsibility of the village community Development has been transferred to the Panchayats under the Gram Panchayat Act. Among other community welfare activities the *Dharsas* or the village roads are maintained by the Panchayats,

Prior to 1963, the Revenue Department was maintaining 443.55 kms of road in Deogarh district connecting various important villages and growth centres including Block headquarters. These roads were transferred to Panchayat Samitis in November, 1963 for maintenance. At present all these roads are under the respective Panchayat Samitis and Gram Panchayats with some of these roads having been renovated under the Pradhan Mantri Gram Sadak Yojana.

### Municipality Roads

Deogarh Municipality is the only Municipal Council in the district of Deogarh. Roads in various wards of the Deogarh Municipality have been constructed since 1905 and have been expanded due to enlargement of human habitation within the Municipal limits. All these roads covering a total length of 24.15 kms. As indicated in the table below are maintained by the Municipality from out of its own revenue resources.

#### Details of Roads under Deogarh Municipal Limit

Name of the Municipality	Types of Road (in Km.)					Total
	Blacktopped	Cement Concrete	Metalled	Earthen	Others Roads	
Deogarh	2.41 Kms.	-	8.05	-	13.69	24.15

### Forest Roads

The Forest Department maintains roads within the forest. Almost all these roads are either dust tracks or *moorum* roads. They are utilised mainly for movement of man and material including forest officials for proper management of the forests and for transportation of forest produce. Roads within the forest under the management of the forest department run for a length of 107.25 kms. Details of which are tabulated here under .



## Forest Road in Deogarh District

Sl. No.	Name of the Forest Road	Name of the Range	Length in Km.
1	Pathar Garh- Kailash	Deogarh	4.00
2	Kansar Hiran	Deogarh	9.00
3	Suguda Gundiapali	Deogarh	13.00
4	Badbahal- Laimura	Deogarh	4.00
5	Jharpur- Laimura	Deogarh	4.00
6	Kholdihi- Goilo	Deogarh	4.00
7	Kailash- Goilo	Deogarh	3.00
8	Khairpali Palsama	Reamal	3.00
9	Chhuriabahal- Tusula	Barkote	19.00
10	Thianal Autal	Barkote	17.00
11	Bamparada Kadalidihi	Barkote	2.25
12	Kadalidihi- Jalisuan	Barkote	7.00
13	Tusula Parposh	Barkote	12.00
14	Damita Pacheripani	Barkote	3.50
15	Bamparada- Netrabahal	Barkote	2.50
<b>Total</b>			<b>107.25</b>

## Road Transport Organization in the District

Regional Transport Office of Deogarh district was created in the year 2009. Even after on 1<sup>st</sup> January 1994 Deogarh became an independent district separated from Sambalpur till 2009 registration of vehicles, collection of revenue on account of transport and enforcement of provisions of the Motor Vehicle Act relating to vehicles of various types of Deogarh district was being supervised by the Regional Transport Office of Sambalpur.

The following table gives details of vehicles of different categories registered with the Regional Transport Office, Deogarh between 2009 and 2015.

Sl. No.	Vehicles Class	Total
01	Motor Cycle	4462
02	Trailer (Commercial)	350
03	Tractor (Commercial)	360
04	LAV (CAR-P)	237
05	L.M.V	67
06	LMV (CAR)(CC)	63
07	Maxi CAB	245
08	MGV	49
09	LMV (JEEP/GYPSY-P)	16
10	BUS (SC)	29
11	Pick UP VAN	22
12	Camper VAN(G)	02
13	LMV (JEEP/GYPSY-CC)	15
14	Ambulance	04
15	Three Wheeler (Passenger)	45
16	Scooter	442
17	Moped	218
18	Car Taxi	18

19	HGV	05
20	School Bus	02
21	Deluxe Bus	01
22	Air Condition Bus (SC)	05
23	Three Wheeler (Goods)	04
24	LGV	139
25	LMV (Van-CC)	01
26	LMV (Van-P)	01
	Total	6802

### Revenue Received on account of Motor Vehicles from 2009 to end of 2015

Sl. No.	Year	Collection during the Year (in Rs)
01	2009-10	56,04,064.00
02	2010-11	84,00,000.00
03	2011-12	1,00,49,916.00
04	2012-13	1,24,33,343.00
05	2013-14	1,26,61,248.00
06	2014 -15	1,71,01,936.00
07	2015-16 (Up to Dec,2015)	1,64,93,573.00

The table above shows progressive increase in revenue earning under Motor Vehicle Act on account of registration of new vehicles and collection of penalty for default relating to violation of various provisions of the Act. This indicates improvement in surface transport system and increase in use of various types of automobile by the people for personal, public and commercial use.

### Public Transport

In the days of the feudal rule when Raja Satchidananda Tribhuban Deb started the 'Bamanda Motor Service', a public transport company in the year 1914 at the capital town Deogarh. After Independence in the year 1948, and merger of Bamanda state with the Union of India, the State Government of Odisha took over the Bus units established by the erstwhile rulers and expanded public transport system with the renovation of roads and introduction of more buses for the ease of commuters. Most of the routes of the District are under the control of State Transport Department.

State Government allowed 24 different routes for operation in a phased manner managed by the Deogarh Unit of the Odisha State Road Transport Corporation (OSRTC) under the Sambalpur zone. The service of buses were provided to connect mainly Deogarh with Talcher, Bamra, Sambalpur, Angul, Sundergarh, Rairakhol, Bhubaneswar, Mukhiguda, Gogua, Tusula, Rourkela, Kendujhar, Rengali Dam, as well as Raipur and Calcutta. With the induction of private bus transport operators first under the 'banner system' and later on route permit auction and allotment system, various routes earlier serviced by OSRTC were given to such private players thus restricting the public sector operations to only a few routes. The Deogarh Unit of OSRTC diminished in terms of its area of operation and revenue earning, which prior to the plying of private buses was known to be a highly paying unit.

The statement given below shows names of route, their length in kilometres and number of daily trips operated by the Deogarh unit of OSRTC from Deogarh before the private transport operators were allowed to serve the district.

Name of the Route	Length in km	No. of trips
Deogarh-Talcher (via Pal-Lahara)	133	1
Deogarh-Bargaon	114	1
Deogarh-Rourkela (via Lahunipa)	156	1
Deogarh-Angul	123	1
Deogarh-Talcher (via Naikul)	112	1
Deogarh-Sambalpur	96	2
Deogarh-Thianal	50	1
Deogarh-Bamra	102	1

Introduction of the luxury coaches by private bus operators from and through Deogarh to various destinations within and outside the state impacted the operations of OSRTC bus services and finally the unit had to be abolished in the year 2002.

This district is having pockets where activities of left-wing extremism have been observed. As a strategy to improve connectivity in such areas OSRTC has taken up special responsibility to ply public transport buses in such areas. In consultation with the State Home Department after assessing the sensitivity of the areas under Rural Transport Connectivity Scheme four special routes have been identified. They are as under:

1. Deogarh to Soda via Gohira Chowk, Dudhianali, Kansar.
2. Deogarh to Laimura via- Tileibani, Rengalbeda, Kuchinda
3. Deogarh to Dantaribahal via Tusula, Kandarpa, Solai, Parposi, Jhara Gogua, Gandam, Telikusum, Niktimal, Goilo, Kailash
4. Deogarh to Tuhilamal via- Reamal.

In addition, private transport operators are plying buses covering all G.Ps in the district. Besides, after introduction of Biju Gaon Gadi Yojana (BGGY) under Rural Transport Connectivity scheme six numbers of routes have been brought into operation further expanding the public transport facilities in the district.

### **Road Safety Aspect**

In Deogarh district there are six numbers of Highways, three National and three States, which carry heavy inter and intra state traffic. Due to several reasons casualties are mounting due to road accidents on these roads. To reduce incidents of road accidents in Odisha, several road safety initiatives have been taken like road safety awareness and education

programmes. Road safety emergency programmes, road safety engineering aspects, observation of Remembrance Day of accident victims, road safety enforcement, etc. The Road Safety Week is observed every year from January 10<sup>th</sup> to 17<sup>th</sup> .January. In case of emergency and to provide timely assistance to victim of road accidents 65 Road Safety Clubs have been formed in all the three Tahasil of Deogarh District under at the initiative and direction of the State Commerce and Transport Department. Tahasil level monitoring committees headed by the Tahasildars for each Tahasil with senior engineers of the National Highway and Public Works Department as members have been formed to guide and supervise the Road Safety Clubs. The Road Safety Clubs provide timely and urgent assistance in shifting the accident victims to the nearest hospital at hours of need.

### **Enforcement of Motor Vehicle and Road Safety Laws**

Road Transport Authority with the Road Transport Officer and other enforcement officers like personnel of the Odisha Motor Vehicle Department with the police are responsible for enforcement and in cases of default prosecution of under the provisions of the Motor Vehicle Act. Who are violated i.e. during the financial year 2014-15 an amount of Rs. 25 lakh was collected on account of prosecution due to rash and negligent driving, driving without or with faulty license, driving in an inebriated state, carrying excess passenger or goods on goods vehicle and contact carriages.

In Deogarh District Brahma Driving Training School is the only driving training school managed by private initiative. This school imparts training to candidates under various government driving training schemes for unemployed youth from identified below poverty line (B.P.L) families, S.C, S.T. and women candidates apart from others interested in learning driving. The training schedule includes theory and on-the-wheel practical classes. Apart from imparting basic knowledge on vehicles , spare parts, troubles-shooting, minor repairs and maintenance, first-aid in case of medical emergency, important aspects of road safety and laws regulating traffic behaviour and motor vehicles.

### **Railways, Waterways and Ferry System, Airstrips and Aerodrome**

#### **Railway Communication**

The royals had allowed Railway Communication in the state during the late Nineteenth Century when the erstwhile Bengal Nagpur Railways (presently South Eastern Railway) started operating in Central and Eastern India. Even sa/ timber sleepers from the Deogarh forests were used in laying the railway tracks. A station was set up on main railway line between Jharsuguda and Rajgangpur at Bamara Govindpur (station), named after the State of Bamra (Bamanda), at a distance of 114 Kms from Deogarh town. Prior to merger of Bamanda State, Bamra was a part of Kuchinda Tahasil and thus was within the limits of the Bamanda Gadajat. After 1948, Kuchinda

was separated from Bamanda and both Deogarh and Kuchinda became separate sub-divisions of Sambalpur district. In this process Bamra railway station came within the revenue territory of Kuchinda sub-division and thus within Sambalpur district. With this kind of area alignment effectively there is no railway station within Deogarh district. Among other major railheads nearer to Deogarh are Jharsuguda, Sambalpur and Rourkela.

### Waterways

The Brahmani river forms a means of communication in Deogarh for small open boats, but the presence of rocks and rapids render the transport of goods on any large scale though not impossible, hazardous. In the later part of nineteenth century when railway network was expanding, *sal* timber sleepers from Deogarh were being transported over the river Brahmani upto Jenapur in Cuttack district. With the expansion of road network and other faster and more dependable modes of transport, there is less reliance on waterways. Only small country boats ferry people who live on river banks.

### Ferry System

No *Danga-ghat* (ferry quay/jetty/pier) in the District is maintained by the Public Works Department. A list of ferries maintained by ferry-*ghats* are maintained, managed and auctioned by Gram Panchayats within their respective areas is given in the table below..

#### List of Ferry-ghats in Deogarh district

Name of Community Development Blocks	Name of Grama Panchayat	Name of Villages served
<b>01</b> Barkote	<b>02</b> Khandam Khajurikhaman Balanda	<b>03</b> Khandam Kulusar Singhasal Ambagam
Reamal Naikul (Gogwa)	Gangnan Gogwa	Gangnan Analakoli Gohira Jadagola Pindapal
	Rengta	Bindpur Rengta Podadihi Kadalipal Kesla Jharadihi
	Budhapal	Sarapal Jhardihi Kundheigola
	Goudsuguda	Bhatsing

## **Airstrips and Aerodrome**

Certain princely states in Odisha had ventured into civil aviation during the British rule more so at the time of the Second World War as a part of war efforts of the Allied Forces. The foremost among them was the state of Mayurbhanj. In Deogarh too during the time of Raja Bhanuganga Tribhuban Deb an airstrip was constructed in the year 1941 at Basalai-Kundapitha, 10 Kms. East of Deogarh Town. Now, this airstrip because of disuse, remains in wilderness and encroachment by the public. It may be interesting for some that, Late Keshari Ganga Deb, a scion of the royal family of Bamanda and a pilot-member of the Bhubaneswar Flying Club landed in the year 1983 an *Airman ACA 2/35* aircraft of U.S.A make in an open field near Deogarh town with dexterity to both the amazement and amusement of the people.

The civil airport nearest to Deogarh in commercial operation is the Biju Pattnaik International Airport at Bhubaneswar. The Airport Authorities of India under the Ministry of Civil Aviation of Government of India have an aerodrome at Jharsuguda, which was constructed during the Second World War. Now this aerodrome is being upgraded and renovated to make it suitable for commercial operation. Once it is brought to use this will be the nearest airport to serve the people of Deogarh District.

In addition, there is an airstrip at Jamadarpali near Hirakud under the control of the State Government, which was built during construction of the Hirakud dam. This airstrip is sporadically used for air traffic operations involving state dignitaries. Likewise, there is another such airstrip at Rourkela which is used mostly by the Steel Authority of India Limited(SAIL) when senior functionaries visit the Rourkela Steel Plant. Of late, there has been some attempt by private airlines operators to connect Bhubaneswar with Sambalpur Jharsuguda and Rourkela by air. This venture is yet to show any viable commercial result. Once brought into commercial use the Jharsuguda aerodrome will be the nearest to Deogarh town.

## **Post and Tele-communication Services**

### **Postal Service**

Raja Sir Basudeb Sudhal Deb of Bamanda State had his own state postal system. The main Post Office was at Deogarh with a few branches at different places. Bamanda state had its unique postage stamp and postal stationery of various denominations. The postal tariff was variable ranging from one *anna* (equivalent now to 6 paise or 6/100 of a rupee) to one rupee depending on they were meant for inter-state or intra-state addressees. The stamps were inscribed 'Feudatory Postage – Bamra State' and the denominations were printed both in English and Odia. The Bamra State Postal Service had the sanction of the British Government.

**Commemorative Indian Postage Stamp of Feudatory State of Bamra collected in 2016 and the One Rupee Postage stamp of Bamara State (inset)**



Although the postal service in the state of Bamanda was the only one of its kind in the Gadjat states of Odisha and unique in nature it could not be sustained for long as it was not commercially viable and its efficiency was not at par with the Imperial Postal Service. The state postal service was merged with the Imperial Postal Service in the year 1894. The new arrangement of an integrated postal service applicable to all parts of British India was introduced in Bamanda state with effect from 1<sup>st</sup> January 1895. Despite its short service tenure the Bamanda State Postal Service remains iconic for historical reasons. The postage stamp and other postal stationery even today are considered very precious philatelic collectors' items.

Presently Deogarh district is served by a large network of post offices spread over the entire district with the Head Post Office located at Deogarh town which is fully computerised for all transactions and official task. Deogarh Head Post Office was selected under Pilot Project Post Office under 'Project Arrow' in Phase-V(A) of modernisation and up-gradation of the services of India Post, the nomenclature which the erstwhile Indian Post and Telegraph service acquired with the abolition of Telegraph service in July 2013. As a part of this the service quality, mail delivery, office service, remittances and savings bank have been upgraded to meet the requirements of the customers. Most of the postal services offered by India Post are available in the Head Post Office other than the postal ATM system.

Following tables give details of the network of Post Offices of various types in Deogarh district.

### **Sub Post Offices**

Sl. No.	Name of PO	Pin code
1.	Barkote SO	768110
2.	Gohira Dam site SO	768121
3.	Purunagarh SO	768119
4.	Reamal SO	768109

### **Branch Post Offices Under various Sub-Post Offices**

SL No.	Name
1.	Balam
2.	Basaloi
3.	Bhatsingh
4.	Dandasingha
5.	Dantaribahal
6.	Ganganan
7.	Jhargogua
8.	Kandhal
9.	Kantapali
10.	Khilei
11.	Nuadihi
12.	Laimura
13.	Parposi
14.	Suguda

#### **Barkote Sub Post Office, PIN-768110**

SL No.	Name of Branch Post Offices
1.	Ambgaon
2.	Balani
3.	Balanda
4.	Bamparda
5.	Charimancha
6.	Danra
7.	Gursang
8.	Kadopada
9.	Kalla
10.	Madhyapur
11.	Saruali
12.	Saida



**Gohira Dam site Sub Post Office, PIN-768121**

SL No.	Name of Branch Post Offices
1.	Barghat
2.	Dholpara
3.	Kansar

**Purunagarh Sub Post Office, PIN-768119**

SL No.	Name of Branch Post Offices
1.	K Tainsar
2.	Rengalbeda
3.	Tabada
4.	Tentalabahal
5.	Tileibani

**Reamal Sub Post Office, PIN-768109**

SL No.	Name of Branch Post Offices
1.	Aunli
2.	Budido
3.	Dashgharia
4.	Gambharipali
5.	Kantabahal
6.	Karlaga
7.	Kundheigola
8.	Lulang
9.	Malohipara
10.	Naulipara
11.	Palsama
12.	Salebhata
13.	Sarpal
14.	Tarang
15.	Tinkbir
16.	Tuhilamal
17.	Tungamal
18.	Utunia

The following Services are available at Branch Post Offices

1. Sale of Postal Stamps/Stationeries including Meghdoot Post Card, Revenue Stamps
2. Registration, Parcel, VP, Insured
3. Money Order, Indian Postal Order
4. Savings Bank
5. Rural Postal Life Insurance
6. Telephone Revenue Collection
7. Delivery of Postal articles

In addition to post offices, there are Panchayat Sanchar Seva Kendras which provide postal facilities like: Sale of Postal Stamps/Stationeries including Meghdoot Post Card, Revenue Stamps, Registration and Delivery of ordinary Postal articles

## **Telephone and Telecommunication Service**

### **Telephone**

Telephone communication was introduced in the former princely state of Bamanda in 1901; twenty-five years after Alexander Graham Bell successfully used it in 1876. There was a telephone line connecting Gobindpur or Bamra Railway Station of the Bengal-Nagpur Railway (BNR), now South Eastern Railway (SER) with Deogarh and Barkote. At first, Gobindpur (Bamra), Kuchinda, Sirid and Deogarh were connected by telephone, which subsequently was extended to Balam and Barkote. Subsequently, a branch telephone line was drawn from Kesheibahal to Mahulpali as a measure of maintenance of law and order due to incidence of dacoity in that area. At that time was reported in The Statesman news paper published from Calcutta (Kolkata) to be the longest telephone line in British India.

During the last two decades, land telephone services have not expanded much, the reason for this being the arrival of Cell Phone, which in common parlance is called mobile phone. There has been rapid expansion of mobile telephone services in Deogarh district with service providers like Bharat Sanchar Nigam Limited (BSNL) in the public sector and several private operators having expanded their network in the district. The entry and proliferation of mobile phone into public domain has opened up new avenues of employment for the youth as traders and technicians in both software and hardware areas.

### **Pigeon Mail Service**

The Odisha Police was having a pigeon mail service since 1947, which was one of its kinds, which was available between certain Police Stations located in the hinterland in nine districts that included Sambalpur, without other means of dependable communication system. Deogarh Sub-Divisional police also had such a pigeon service for conveying important and urgent messages to the District Headquarters located at Sambalpur. The most remarkable message this pigeon mail service carried was on 13<sup>th</sup> April, 1948 by Jawaharlal Nehru who was visiting Sambalpur in connection with the construction of the Hirakud Dam. The message was, "*the arrangements for the public meeting should not be such as to separate the speaker from the audience*" and was meant for the Chief Minister of Odisha staying at Cuttack, then capital of the state.

There were two kinds of pigeon service, one being static and the other boomerang. Static birds communicated with Deogarh in times of emergency and not returning to their point of origin. The boomerang pigeons of the boomerang service were returning to their point of origin and it was a two-way communication system. The Odisha Police pigeon mail service has since been discontinued since 2002, all over the state including Deogarh due to the availability and use of better, faster and more dependable communication and transmission systems with the advent of microwave and satellite based technology.

## **Radio and Wireless System and Stations**

### **Radio and Television**

The Sambalpur station of All India Radio (AIR) which commenced broadcasting in the year 1963 is the nearest radio station serving Deogarh district. Due to various geo-physical factors like hilly terrain, the radio signals of AIR Sambalpur, despite having a high power transmitter of 100 Kilowatt capacity, do not cover the entire district. Deogarh is historically known for art, literature and culture and to foster this, there has been public demand for a separate radio station for Deogarh like that in some other districts of the state after it became an independent district. In partial fulfilment of the demand, a 100 watt relay transmitter was made operational from 23<sup>rd</sup> December 2005 at Deogarh which beams only entertainment Programmes by relaying Vividh Bharati service of All India Radio. This transmitter operates from the premise of the Doordrashan Low Power transmitter and does not meet the information, education and communication needs of the people.

The Low Power Transmitter of Doordrashan, the national public service television broadcaster at Deogarh started functioning from 3<sup>rd</sup> October 1996. This transmitter carries both national Programmes and Odia Programmes originating from Delhi and Bhubaneswar respectively and is the only terrestrial television service in the district. Apart from Doordarshan, several private television channels in multiple languages are accessible and available all across the district through satellite based cable network and direct-to-home (DTH) services.

### **Wireless**

As an essential requirement for faster communication and to maintain a high level of efficiency and secrecy the Odisha State Police have a large network of wireless traffic in the state. Deogarh district forms a part of this network as a sub-control station linked to the Sambalpur control system. This network has proved its efficiency in maintaining law and order keeping

in view the sensitivity of the area in the wake of the Left Wing Extremist activities sporadically observed in the district.

### **Internet Service**

Deogarh is fairly exposed to internet service. Initially this service was mostly used by government offices and public sector establishments like banks for accessing information, faster communication via e-mail and for teleconferencing. Use of internet service by academic institutions, students and private individuals is growing by the day in the district. At the outset Bharat Sanchar Nigam Limited (BSNL) was the only internet service provider in the district. In due course several other private cell phone and satellite communication service providers too have started operations in Deogarh district. Broadband and 3G internet services are provided by both the public sector BSNL and other private telecom operators.

With considerable expansion of road communication net work through the National Highways chain, State Highways system, Panchayat roads and the Pradhan Mantri Gram Sadak Yojana, along with the spread of various modes of telecommunication Deogarh is no more the “*Akhoj Bamanda*” of the past.