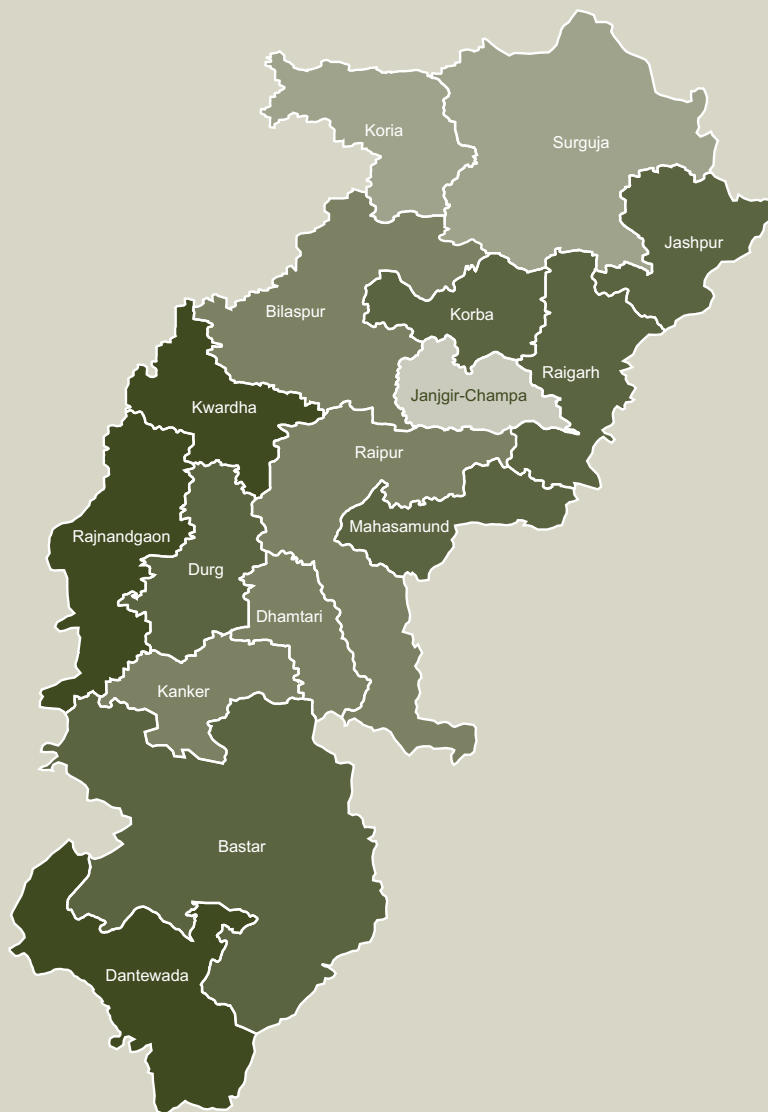


Food Security Atlas of RURAL CHATTISGARH



UN World Food Programme



Institute for Human Development

Food Security Atlas **Of RURAL CHHATTISGARH**



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FOREWORD

Food Security has now taken centre stage in policy discussions around the world. Along with issues of food production there are also clearly issues of access of the poor to food. In India, despite high GDP growth rates over the past decade or so, the record in reducing hunger is not so impressive. This brings to the fore the question of inclusive growth, particularly the inclusion of the most deprived sections of our society and regions of our country into benefiting from the growth process. Increased access to food comes forward as a basic component of inclusive growth.

It is apt that at such a time the Institute for Human Development (IHD) and the UN's World Food Programme (WFP) have produced this set of Rural Food Security Atlases for 8 States of India.

Constructing a Food Security Index (FSI) the authors have tried to identify the districts that fare particularly badly and the factors behind the poor performance of these districts in each of the States. The identification of regions and social groups that are most food insecure should help to draw attention to the regions and social groups that require most attention in order to reduce food insecurity. At the same time, analysis of factors behind poor food security should help direct district-level interventions towards dealing with the factors that seem to be behind poor food security in these districts.

The authors argue while paying attention to increasing food supply, it is critical to pay attention to improving the access of the poor to adequate food. They identify improvements in infrastructure and in the position of women as central to improving food security.

I hope the Atlases will stimulate discussion among policy makers and social analysts on ways of designing district-level interventions that would enable India to reduce hunger as part of inclusive growth.

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Preface

India is home to more than a quarter of the hungry people in the world. The effect of climate change on agriculture will adversely affect Indian agriculture, thereby making food availability scarce. The existing production levels barely manage to keep pace with the growing population, a problem that is aggravated by high disparities in resources and purchasing power.

The changing scenario of rising food prices has raised new concerns about food security. It has been estimated that globally 130 million more people have become food insecure due to high food prices, in addition to the existing 850 million. Soaring prices would require providing top priority to ensuring access to food by the most vulnerable, which can be achieved through expanded safety net programmes such as the PDS, and those programmes which address the nutritional status of pregnant and lactating women, and children of less than five years of age.

The prevalence of underweight children in India is among the highest in the world. Over 50 million children under five years are malnourished. There are multiple causes of this phenomenon. Looking at the problem spatially, a relatively small number of states, districts, and villages account for a large share of the problem – 5 states and 50 percent of villages account for about 80 percent of the malnutrition cases.

Therefore, the need of the hour is a comprehensive strategy to tackle the growing menace of food and nutritional insecurity. In a country of continental dimensions with vast disparities, it is pertinent that developmental efforts be directed in specific directions and in specific areas for optimum utilization of resources.

To map food insecurity in the country, the World Food Programme had come out with a series of food insecurity atlases in collaboration with the M.S. Swaminathan Research Foundation. The most significant contribution of these atlases was to mainstream the issue of food security, besides identifying their incidence among the major states.

As a corollary to these atlases, on behalf of the WFP, the Institute for Human Development has prepared state-specific atlases with comprehensive analysis at district and regional levels. Looking through the child nutrition lens in view of prevalence of underweight children, and under-five mortality, these atlases help in identifying the districts at various levels of food security within the most food insecure states. This will help in convergence of complementary programmes of the government in addressing undernutrition and child mortality in the country.

We are deeply indebted to all the members of the Technical Advisory Group (TAG), constituted to provide direction and technical inputs to the report. We would like to express our sincere gratitude to the TAG chairperson Prof. Abhijit Sen, Member, Planning Commission for his encouragement and deep involvement in this project.

Much of the credit for bringing out this publication goes to Dr. Dev Nathan, Professor, and Dr. Preet Rustagi, Senior Fellow, who coordinated the study from IHD; Dr. Sandip Sarkar, who provided the technical advice, especially the construction of the indices; and Dr. Sunil Mishra and Ms. Payel Dutta Majumder who executed the work of calculation of indices and analyzing the data. We would also like to express our gratitude to Dr. Minnie Mathew, Head of Programme Unit, WFP-India for providing her guidance to the study; Dr. Nisha Srivastava, who led the project in WFP; and Mr. Bal Paritosh Dash and Mr. Animesh Kumar for providing their critical inputs.

We hope that the atlases will serve as a tool for the government and policymakers to target interventions more effectively and fine-tune assistance strategies to target the most vulnerable groups and areas. An important outcome of this exercise is a systematic and integrated food security information system located within the state governments. Finally, it will enhance advocacy at the state level so as to direct policy focus, resources and initiatives to the most food insecure.

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The preparation of the food security atlases for eight states would not have been possible without the joint efforts of various organizations, individuals and government officials. The primary input for construction of indices as well as formulation of appropriate indicators is reliable disaggregated sub-state level data, which was collected, collated and mined from secondary sources as well as based on information made available by various state departments and ministries. We wish to thank all of them for their support and assistance. We are grateful to DFID for funding the project through the Global Institutional Support Grant to WFP.

The Chairperson of the Technical Advisory Group (TAG), Prof. Abhijit Sen, Member, Planning Commission and other members of the TAG deserve a special mention for all the deliberations in the meetings held and their expert advice to the research team from time to time. Many of them were also available at short notice to help us resolve problems, provide solutions and show us the way forward. We wish to thank them all for their cooperation and support.

The Chhattisgarh state report was prepared with the inputs of numerous resource persons and regional institutions, who also helped in the organization of state consultations. We acknowledge the contribution of Dr. Ilina Sen and Mr. Suresh Kumar Sahu of Rupantar, Raipur who helped us in the collection and collation of state specific resource material and data; as well as Dr. Harishwar Dayal, Director and Mr. Ashwani Kumar of IHD Eastern Regional Centre, Ranchi who helped in the organization of the state consultation.

A preparatory workshop was organized on 31st July, 2007 in Raipur. This was chaired by Dr. Alok Shukla, Secretary, Food, Civil Supplies and Consumer Protection, Revenue, Government of Chhattisgarh, and was attended by experts from the state government, academia, and civil society organizations. The insights and active participation of a few experts deserves special mention – Ms. Indu Netam, Adivasi Samta Manch; Prof. J.L. Bharadwaj, Pandit Ravi Shankar Sukla University, Raipur; Dr. S. Srivastava, Unit Manager, AFPRO (Action for food Production); Mr. Bhaskar Dwivedi, Training Coordinator, Chhattisgarh Tribal Development Programme; Dr. Alok Panday, State Coordinator, PRIA; Dr. Bhag Chandra Jain, Associate Professor (Agricultural Economics), Indira Gandhi Agricultural University, Raipur; Mr. Ravi Manav, Director, Vardan; Mr. D.N. Sharma, Secretary, Sandhan Sansthan; Mr. Murlidhar Chandram, Srijan Kendra; Mr. Jacob Nellithanam, Programme Co-Coordinator, Jan Swasthaya Sahyog; Mr. Himanshu Kumar, Director, Vannvasi Chetna Ashram; Mr. Moin Jafar Khan, Programme Co-Coordinator, Aastha Sikshan Samiti; Mr. Kasi Ram Verma, President, Gramodaya Kendra; Mr. Daulat Ram Kashyal, President, Astha Samiti; Mr. Chandan Kumar Mishra, Programme Coordinator, Samarthan - Centre for Development Support; Mr. Sourav Bhattacharjee, Nutrition Officer, UNICEF; and Mr. Gautam Bandyopadhyay, Secretary, Chhattisgarh Action Research Team, among many others.

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- IHD and WFP research team

Contents

Foreward

Preface

Acknowledgements

List of Tables, Figures, Maps and Boxes *xiii*

List of Abbreviations *xv*

Executive Summary **1**

1. Introduction **5**

1.1 What is Food Security?

1.2 Overview of the Report

2. A Profile of the State of Chhattisgarh **10**

2.1 Agro-Ecological Regions

2.2 Poverty

2.3 Economic Growth

2.4 Health and Nutritional Status

2.5 Regional Structure of the State

2.5.1 Socio-Economic Structure

2.5.2 Urbanization

3. Analysis of Food Security **22**

3.1 Measuring Food Security Status

3.2 The Food Security Outcome Index (FSOI)

3.3 Explaining Food Security

3.3.1 Food Availability

3.3.2 Food Access

3.3.3 Food Absorption

3.4 The Food Security Index (FSI)

4. Food Availability **35**

4.1 Production

4.2 Status of Agricultural Production

4.3 The Extent of Irrigation

4.4 Forests

4.5 Status of Rural Connectivity in Rural Chhattisgarh

4.6 Food Availability Status

5. Access to Food **44**

5.1 Rural Wages

5.2 Monthly Per Capita Expenditure

5.3 Agricultural Labourers

5.4 Proportion of Scheduled Tribes and Scheduled Castes

5.5 Ratio of Working Age Population

5.6 Rural Female Literacy

5.7 Women's Workforce Participation

5.8 Urbanization

5.9 Food Access Status

6. Food Absorption **59**

7. Addressing Food Insecurity in Chhattisgarh **65**

7.1	Food Security Index (FSI)	
7.2	Identifying Priority Districts	
7.3	Strategies for Promoting Food Security	
7.3.1	Enhancing Availability	
7.3.1.1	Increasing Food Production: The National Food Security Mission	
7.3.1.2	Improving Connectivity	
7.3.2	Improving Access to Food	
7.3.2.1	Improving Performance	
7.3.2.2	Increasing Wages and Employment	
7.3.2.3	National Rural Employment Guarantee Scheme (NREGS)	
7.3.2.4	Improving Gender Relations	
7.3.2.5	Scheduled Tribes	
7.3.3	Enhancing Absorption	
7.3.3.1	Clean Drinking Water: Rural Water Supply	
8.	Conclusion: Towards A Food Secure Chhattisgarh	89
	References	96
	Appendix 1: Right to Food	99
	Appendix 2: Food Security Index (FSI): A Methodological Note	102

List of Tables, Figures, Maps and Boxes

Table 2.1:	Net State Domestic Product and Poverty Status	12
Table 2.2:	Percentage Share of Poor and All Households by Social Group for Rural Chhattisgarh (2004-05)	12
Table 2.3:	Percentage Share of Poor and All Households by Household Type for Rural Chhattisgarh (2004-05)	13
Table 2.4:	Percentage Share of Poor and All Households by Land Cultivation Categories for Rural Chhattisgarh (2004-05)	13
Table 2.5:	Sectoral Composition of NSDP (TE 2004-05)	14
Table 2.6:	Percentage Share of GSDP by Sub-Sector in Chhattisgarh at 1993-94 Prices	15
Table 2.7:	Percentage Distribution of Workers and GSDP by Sector in Chhattisgarh, 2004-05	15
Table 2.8:	Mortality and Nutritional Status of Children and Women	17
Table 2.9:	Nutritional Status of Children (NFHS I, II, III)	18
Table 2.10:	Status of Consumption	18
Table 2.11:	Literacy Rate for Individuals from Poor and All Categories by Gender for Rural Chhattisgarh 2004-05	19
Table 2.12:	Socio-Economic Status of Major States	19
Table 2.13:	Percentage of Urban Population in Chhattisgarh, 2001	20
Table 3.1:	Correlation between Micronutrient Intake and Under-nutrition and Mortality Status	25
Table 3.2:	District-wise Under-Five Mortality Rate and Underweight in Chhattisgarh	25
Table 3.3:	Status of Food Security Outcome (FSO) Index in Chhattisgarh	26
Table 3.4:	Chhattisgarh – Indicators Used to Analyze Food Security	33
Table 4.1:	Level of Agricultural Development	36
Table 4.2:	Status of Agricultural Production in Chhattisgarh	37
Table 4.3:	Share of Net Irrigated Area (NIA) in Chhattisgarh	38
Table 4.4:	Environmental Limitations to Agricultural Development	39
Table 4.5:	Share of Forest Area In Chhattisgarh	40
Table 4.6:	Rural Connectivity (in per cent) in Chhattisgarh	41
Table 4.7:	Status of Districts in Availability Index in Chhattisgarh	43
Table 5.1:	Wage Rate of Casual Workers	44
Table 5.2:	Rural Casual Wage Rate in Chhattisgarh	45
Table 5.3:	Monthly Per Capita Expenditure on Food	46
Table 5.4:	Monthly Per Capita Consumption Expenditure in Chhattisgarh	46
Table 5.5:	Proportion of Agricultural Labourers in Workforce	47
Table 5.6:	Share of Agricultural Labourers in Chhattisgarh	48
Table 5.7:	Proportion of Scheduled Tribes and Scheduled Castes in the Rural Population	49
Table 5.8:	Share of SC ST Population to Total Population in Chhattisgarh	49
Table 5.9:	Ratio of Working Age Population	51
Table 5.10:	Share of Working Age Population in Chhattisgarh	52
Table 5.11:	Rural Female Literacy (in per cent)	52
Table 5.12:	Rural Female Literacy in Chhattisgarh (in per cent)	54
Table 5.13:	Women's Work Participation Rate in Chhattisgarh	54
Table 5.14:	Level of Urbanization in Major States	56
Table 5.15:	Level of Urbanization by Districts in Chhattisgarh	56
Table 5.16:	Status of Districts in Access Index	58
Table 6.1:	Factors Determining Status of Absorption	59
Table 6.2:	Households with Access to Safe Drinking Water in Chhattisgarh (%)	61
Table 6.3:	Access to Health Services in Rural Chhattisgarh	62
Table 6.4:	Indicators Used to Compute Absorption Index	62
Table 6.5:	Status of Districts in Absorption Index	64
Table 7.1:	Ranks of Districts on Composite Food Security Index and its Components	65
Table 7.2:	Status of Districts in Food Security Index	67
Table 7.3:	Priority Districts for Food Security Intervention	68

Table 7.4:	Subset of Priority Districts	68
Table 7.5:	Districts under NFSM in Chhattisgarh	71
Table 7.6:	Total Habitations Covered Under Rural Roads Programme under Bharat Nirman Programme in Chhattisgarh: Targets and Achievements – 2005-07	73
Table 7.7:	Status of Public Interventions in Chhattisgarh	74
Table 7.8:	Index of Public Intervention	74
Table 7.9:	Percentage Share of Poor and Nearly Poor Households who have Ration Cards or Benefited from Various Schemes in Rural Chhattisgarh (2004-05)	75
Table 7.10:	NREGS Performance, April 2008	79
Table 7.11:	NREGS Performance in Chhattisgarh	81
Table 7.12:	Total Habitations Covered Under Rural Drinking Water Supply under Bharat Nirman Programme in Chhattisgarh	87
Table 8.1:	Priority Districts for Intervention	89
List of Figures		
Figure 2.1:	Percentage Poverty Rates by Social Group for Rural Chhattisgarh (2004-05)	11
Figure 2.2:	Average Annual Growth Rate of GSDP (1994-2005) in Chhattisgarh	16
Figure 7.1:	Allocation Proposed under NFSM	70
List of Maps		
Map 2.1:	Chhattisgarh: Administrative Divisions	11
Map 2.2:	Level of Urbanization	21
Map 3.1:	Food Security Outcome Map of Chhattisgarh	27
Map 4.1:	Status of Agricultural Production	37
Map 4.2:	Share of Irrigated Area	38
Map 4.3:	Share of Area under Forests	40
Map 4.4:	Status of Rural Connectivity	41
Map 4.5:	Food Availability Map of Rural Chhattisgarh	42
Map 5.1:	Wage Rates of Rural Population	45
Map 5.2:	Status of Consumption Expenditure on Food	47
Map 5.3:	Share of Agricultural Labourers in Total Working Population	48
Map 5.4:	Proportion of Scheduled Castes and Scheduled Tribes	50
Map 5.5:	Share of Rural Working Age Group Population	51
Map 5.6:	Status of Rural Female Literacy	53
Map 5.7:	Women's Workforce Participation Rate	55
Map 5.8:	Food Access Map of Rural Chhattisgarh	57
Map 6.1:	Access to Safe Drinking Water	60
Map 6.2:	Access to Health Services	61
Map 6.3:	Food Absorption Map of Rural Chhattisgarh	63
Map 7.1:	Food Security Map of Chhattisgarh	66
Map 7.2:	Status of Public Interventions in Chhattisgarh	76
Map 8.1:	Districts identified for Priority Intervention in Chhattisgarh	90
List of Boxes		
Box 3.1:	Towards MDG – 4	24
Box 3.2:	Agricultural Production and Food Security	29
Box 7.1:	National Policy for Farmers, 2007	72
Box 7.2:	Improved Targeting in the Public Distribution System	75
Box 7.3:	NREGA and Food Security	80
Box 7.4:	Female Literacy: The Pivot for Reducing Food Insecurity and Child Mortality	82
Box 7.5:	Innovative Food Security Initiatives: The Food for Work Programme in Tribal Development Projects	83
Box 7.6:	The Forest Rights Act	85
Box 7.7:	Innovative Schemes for Ensuring Nutritional Security	87
Box 7.8:	Meeting the Nutritional Needs of Vulnerable Groups	88

List of Abbreviations

ADAPT	Area Development Approach for Poverty Termination
AIDIS	All-India Debt and Investment Survey
APL	Above Poverty Line
ARWSP	Accelerated Rural Water Supply Programme
BMI	Body Mass Index
BPL	Below Poverty Line
CMR	Child Mortality Rate
CSO	Central Statistical Organization
DLHS	District-level Household Survey
DPAP	Drought Prone Area Programme
FAO	Food and Agriculture Organization
FCI	Food Corporation of India
FFS	Farmers' Field School
FSI	Food Security Index
FSO	Food Security Outcome
FSOI	Food Security Outcome Index
GSDP	Gross State Domestic Product
HYV	High Yielding Variety
ICDS	Integrated Child Development Services
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IHD	Institute for Human Development
IIPS	International Institute for Population Sciences
IMR	Infant Mortality Rate
LTAP	Long Term Action Plan
MDGs	Millennium Development Goals
MDM	Mid-Day Meal
MMS	Mid-Day Meal Scheme
MPCE	Monthly Per Capita Expenditure
MSSRF	M S Swaminathan Research Foundation
NCEUS	National Commission for Enterprises in the Unorganized Sector
NCRL	National Commission on Rural Labour
NFHS	National Family Health Survey
NFSM	National Food Security Mission
NREGA	National Rural Employment Guarantee Act
NREGS	National Rural Employment Guarantee Scheme
NSDP	Net State Domestic Product
NSS	National Sample Survey
NTFP	Non-Timber Forest Product

OBC	Other Backward Class
PDS	Public Distribution System
PESA	The Panchayats (Extension To Scheduled Areas) Act
PHC	Primary Health Centre
PMGSY	Pradhan Mantri Gram Sadak Yojana
RLTAP	Revised Long Term Action Plan
RTI	Right to Information Act
SC	Scheduled Caste
SCA	Special Central Assistance
SCP	Special Component Plan
SHG	Self-Help Group
ST	Scheduled Tribe
TE	Triennium Ending
TSP	Tribal Sub Plan
UNICEF	United Nations' Children Fund
WFP	World Food Programme
WFS	World Food Summit
WHO	World Health Organization
WFS	World Food Summit
WHO	World Health Organization

Executive Summary

Food security is not just a matter of the availability of food, but even more of the access of households and individuals to sufficient nutritious food. The nutritional status of an individual is also influenced by access to safe drinking water, facilities for hygiene and sanitation. Consequently, food security is analyzed along the axes of availability, access and absorption. The importance of entitlements in food security is underlined by the Supreme Court's judgments validating the Right to Food. As a signatory to the UN's Millennium Development Goals (MDGs), the Government of India and all state governments have an obligation to reduce by half the proportion of people suffering from hunger by 2015.

To contribute to reaching the above goals, the Institute for Human Development (IHD) on behalf of UN World Food Programme (WFP) has undertaken an analysis of the dimensions of food security at the sub-state or district level for 8 states of India – Orissa, Jharkhand, Chhattisgarh, Madhya Pradesh, Rajasthan, Bihar, Uttar Pradesh and Maharashtra. The purpose of this exercise is to:

- **Identify the regions and social groups most affected by food insecurity;** and,
- **Suggest policy interventions appropriate to improving food security for those regions and social groups.**

Recognizing that reduction of acute poverty is the key to reducing hunger, the analysis began by choosing the likely variables that affect food security along the three axes of availability, access and absorption. The composite index is based on 12 identified indicators which reflect these three dimensions. The availability-related variables considered here are agricultural production in per capita value terms, proportion of forest area, extent of irrigation and rural connectivity in terms of villages with access to paved roads. The six variables considered for the access-to-food dimension include proportion of agricultural labourers, ratio of working age population, monthly per capita consumption expenditure, casual wage rate of rural persons and female literacy rate. Access to safe drinking water and primary health services are the two variables considered for the absorption index.

The values of districts on each of these 12 variables were combined to develop a Food Security Index (FSI), on the basis of which each district was ranked. A Food Security Outcome Index (FSOI) was also developed based on two indicators – under-five mortality and proportion of underweight children. Districts were also ranked on the basis of this index. The FSOI allows us to rank districts on the basis of nutrition performance, with the caveat that on the whole, nutritional status in India is poor, and therefore, the variation between districts may not be very much. The FSI, on the other hand, also allows us to judge the relative importance of variables in the differences between districts. Thus, the FSI can be understood to be an explanatory index computed to explain the outcomes of food security, as suggested by the FSOI.

The analysis of this report has yielded the following districts as requiring special attention for food security interventions in Chhattisgarh:



Priority Districts for Intervention

District	FSO Rank	FSI Rank
Southern (Bastar) Plateau		
Dantewada	15	12
Bastar	11	14
Northern Region		
Korba	13	15
Jashpur	12	10
Raigarh	9	7
Surguja	3	16
Koriya	2	13
Central Plains		
Rajnandgaon	15	4
Kwardha	16	9
Mahasamund	8	8

In general, however, the districts of Chhattisgarh fare poorly on nutritional outcomes, with only the more urbanized and industrialized districts doing better. Thus, ensuring food security and improving the nutritional status is a challenge for the state of Chhattisgarh as a whole. The identification of certain districts for priority action does not mean that either resources or efforts to bring up all districts can slacken, but only draws attention to the need for more inclusive growth efforts and the special efforts needed to bridge the divides between different regions and districts of the state. At the same time, it is also necessary to pay special attention to the food security needs of the so-called primitive tribes, such as Pahari Korwa, Kamar, Baiga and Birhor.

Access to roads and irrigation are two areas in which the state considerably lags behind the country, while the Southern Plateau, in addition, has very low rates of adult female literacy. Low per capita agricultural productivity is the feature of the state's rain-fed agriculture. **Rural connectivity and small-scale irrigation in a manner appropriate to hill and plateau regions, along with improving female literacy**, should form the core of efforts to reduce extreme poverty, and thus hunger, in Chhattisgarh.

Along with this, special efforts are needed for development of livelihoods of forest-based populations. This itself comprises a number of measures, including:

- Implementation of the Forest Rights Protection Act so as to provide security of tenure
- Investment to enable a shift to production of high value crops



- Shortening of the chain of intermediaries and promoting value-added processing in non-timber forest products (NTFP)

The changes in production that would reduce food insecurity require not just improved access, but also enhanced capabilities, through extension and technological development, building on local capacities and knowledge.

Measures to increase household and individual incomes need to be supplemented by Community Forest Management (CFM), which can enable communities to balance production and local environmental concerns.

Complementary steps need to be taken to enhance women's agency in the household and community, through:

- literacy and education, and
- women's land rights

Enhancing women's capabilities could, among other benefits, also lead to the adoption of improved nutritional practices, such as exclusive breast-feeding of infants till six months of age.

Micro-finance, through self-help groups (SHGs) supported by NGOs, could help

- reduce the incidence of inter-linked transactions, which result in very low net income,
- improve the food security situation by enabling borrowing for critical needs, and
- also increase the share of household income under the control of women.

In Chhattisgarh, there are four issues of land reform that need to be tackled in order to improve food security:

- Restoration of illegally-acquired tribal lands
- Distribution of land to the landless, largely Scheduled Castes (SCs)
- Security of tenure of Scheduled Tribes (STs) in forest areas
- Women's land rights

Chhattisgarh has a specific requirement – to design **policies for industrialization that do not increase the number of the displaced refugees**, but enable them to secure improved livelihoods in the course of industrialization. This is a matter of intense debate, even confrontation. One way, could



be by **combining mineral-based with labour-intensive industrialization** (e.g. textiles and garments) that can absorb the poorly educated labour that is likely to be displaced by mineral-based industrialization.

Employment-based programmes (e.g. NREGA schemes) can themselves be planned to improve infrastructure to provide needed public goods (roads), or quasi-public goods (irrigation) for the area.

Improvement in the implementation of these government schemes depends, at one level, on improvement in administration and governance systems. But more important is the role of the people who are to benefit from the schemes, whether organized through CBOs, NGOs or traditional tribal bodies – in both **demanding and monitoring implementation** of the numerous schemes. The innovative *mithanin* system can be extended to support better implementation of all government schemes.

Enhancing capabilities, through rights, access to resources and training, will clear the road for building the **capacity** to aspire – the aspirations for a better life exist, but the means or capacity to realize those aspirations are lacking.