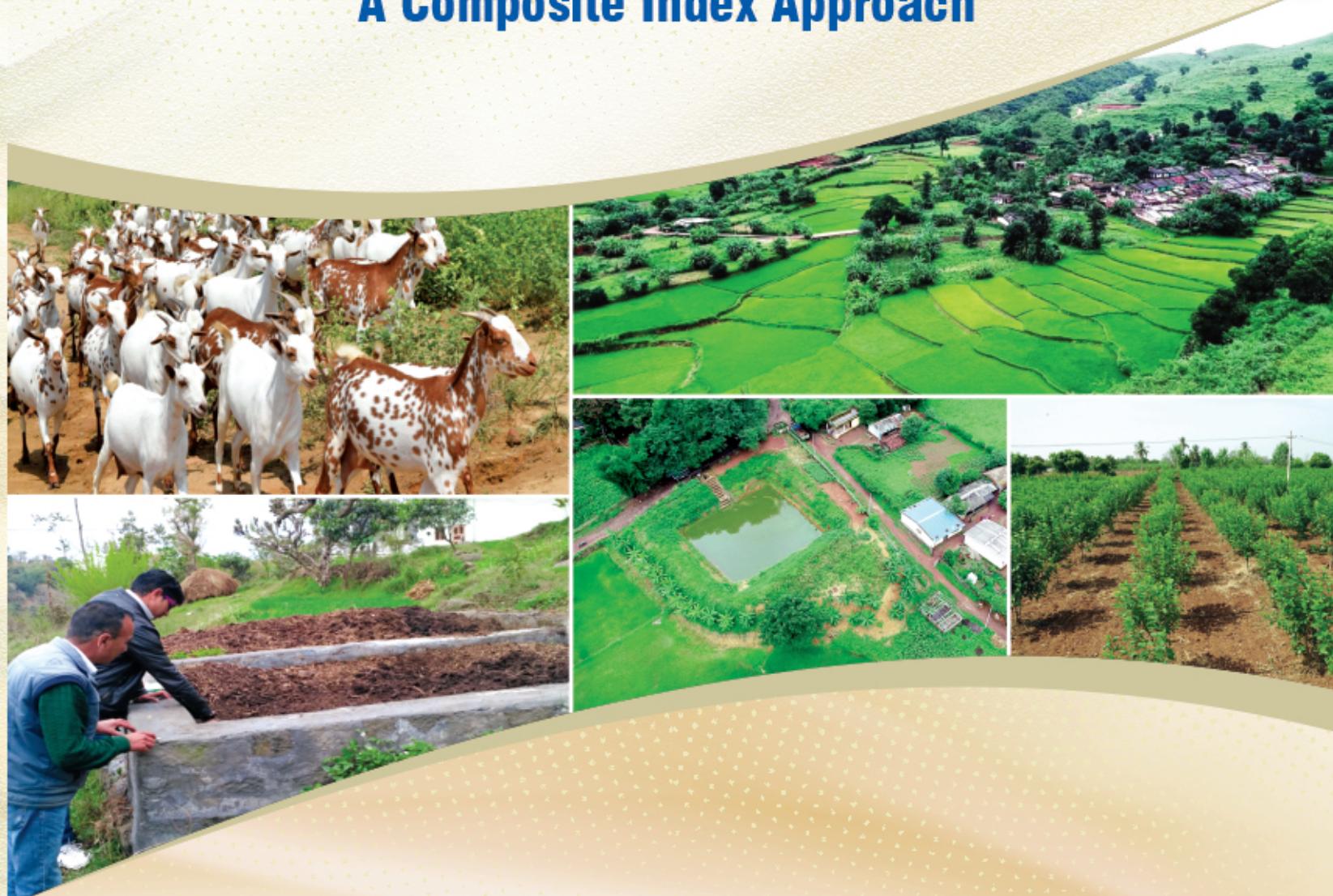




# Prioritization of Districts for Development Planning in India

## A Composite Index Approach



**National Rainfed Area Authority (NRAA)**  
Department of Agriculture, Cooperation & Farmers Welfare  
Ministry of Agriculture & Farmers Welfare

JULY 2020



# **Prioritization of Districts for Development Planning in India A Composite Index Approach**



Report Submitted by

**Task Force on  
Revisiting Prioritization of Rainfed Areas**



Knowledge Partner  
**ICAR-Central Research Institute for Dryland Agriculture  
Hyderabad**



## **Disclaimer**

Though all possible precautions have been taken to see that the data are entered, compiled and validated correctly, the authors or their organizations bear no responsibility for accuracy of data. Notwithstanding due diligence, possibility of lapses cannot be ruled out. Under no circumstances shall the members of the Task Force or their organizations be held liable for any damages, whether direct, incidental, indirect, special, or consequential damages or otherwise arising from use of the outputs.

**Year of Publication:** July 2020

*Published by:*

National Rainfed Area Authority

NASC, Complex, 2nd Floor,

Dev Prakash Shastri Marg

New Delhi 110012, India

Design & printed at M/s. Royal Offset Printers, A-89/1, Naraina Industrial Area, Phase-I, New Delhi-110028

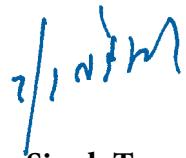


## MESSAGE

Agriculture is the backbone of Indian economy. In addition to providing food and raw material, it also provides employment opportunities to a very large percentage of our population. Almost 52 percent of India's agriculture is monsoon-dependent, rendering a large number of farmers vulnerable on account climate-associated risks. Rainfed agriculture has the potential to enhance the levels of productivity, if the risks are addressed by incorporating appropriate technologies and management practices. There is need for the adoption of comprehensive drought-proofing technologies that are in alignment with the agro-ecologies. Further, both central and state governments need to pool their resources and strategies.

I am immensely pleased to note that National Rainfed Area Authority (NRAA), Department of Agriculture, Cooperation & Farmers' Welfare (DAC&FW), Ministry of Agriculture & Farmers' Welfare (MoA&FW), Govt. of India is bringing out a Report, "Prioritization of Districts for Development Planning in India - A Composite Index based Approach". It is good to note that the Prioritization of the districts is based on a Composite Index (CI), which aggregates Natural Resources Index (NRI) and Integrated Livelihood Index (ILI) in a rational manner. This approach brings wholeness to developmental planning in India, as it takes into account the status of vulnerabilities that emanate from both the natural resources and human resources. The Report has successfully ranked all the 670 rural districts of the country based on a composite index, and identifies 168 districts (25% of the districts studied) as "high priority" ranked districts for interventions. The Index has also identified 100 highly water-stressed districts, whose treatment is one of our government's priority. I am also happy to learn, that various developmental and welfare mandated Ministries and Departments at both Centre and State levels will be able to use the Composite Index for prioritizing their interventions.

I am confident that the policy makers, administrators and field level functionaries will find this Report very useful. The Report offers an opportunity for evidence-based planning and execution of a new paradigm for appropriate management of rainfed systems, and realise higher and sustained agricultural production from the vast rainfed tracts of our country. In the process, our farmers will stand to benefit by way of higher incomes, which is essential for achieving their welfare in accordance with our Government's vision. I congratulate the Task Force and NRAA for having brought out this useful Report based on a detailed study. I dedicate this Report in service of our farmers in particular, and rural people at large and may they stand to benefit from planned and prioritized interventions by various government agencies.



(Narendra Singh Tomar)



## MESSAGE

Drought is one of the most feared natural calamities in India impacting food production, livelihood of farmers and landless agricultural labourers, and the nation's economy at large. It causes crop damage, and in extreme cases total loss of harvest and severe casualty of livestock. Droughts also affect the environment, leading to ecological stress and changes in the quality of our rivers and lakes. The rainfed areas are the most susceptible and vulnerable to the negative impacts of drought. Drought Management in these areas is a complex phenomenon which requires active and continuous participation of the governments at both national and state levels, and various ministries and departments there under. In addition, various other stakeholders including the communities need to be proactively involved in preparing comprehensive plans and implementation strategies for drought proofing.

I am delighted to learn that National Rainfed Area Authority (NRAA), Department of Agriculture, Cooperation & Farmers' Welfare (DAC&FW), Ministry of Agriculture & Farmers' Welfare (MoAFW), Govt. of India is bringing out a Report, "Prioritization of Districts for Development Planning in India – A Composite Index based Approach". The primary focus of the Report is to prioritize the rainfed districts of the country based on Composite Index (CI), which is a function of Natural Resources Index (NRI) and Integrated Livelihood Index (ILI). It is highly appreciable that 14 numbers of parameters that reflect the status of natural resources, and 18 numbers that indicate human development status have been the basis for examination of 3 indices, namely NRI, LI and CI.

The study has successfully ranked all the 670 rural districts of the country in respect of all the three indices, making way for delineation of 168 most vulnerable rainfed districts for priority treatment. The National Rainfed Area Authority would now be able to prioritize comprehensive drought proofing of the most vulnerable districts in a rational manner. This ranking would also help the DAC&FW to roll out various land and water resources related schemes. Likewise, various other ministries and departments that are concerned with livelihood activities, rejuvenation of degraded lands and welfare programmes that are closely related to natural resources-soil and water would find this evidence based prioritization useful.

I congratulate and compliment the National Rainfed Area Authority and the Task Force engaged for this study for bringing out this Report. It is a much needed study, since government agencies are always called upon to pay priority attention to the most vulnerable. I am confident, that this publication will provide very important information on rainfed areas and facilitate formulation of suitable policies and institutional framework for achieving an accelerated growth of the agricultural sector in the poorly endowed regions of the country.



(Sanjay Agarwal)

July 23, 2020

**ASHOK DALWAI**  
Chief Executive Officer, NRAA



**Department of Agriculture, Cooperation  
& Farmers Welfare**  
**Ministry of Agriculture & Farmers Welfare**  
**Government of India**  
**AND**  
**Chairman, Empowered Committee, DFI**



## FOREWORD

India's agriculture supported by an arable land extent 141 million hectares continues to be critical for a majority section of the people from the perspective of livelihood options, and food & nutrition security of the growing population. In the past, the robust package of technology, extension and price support policy of the Government have stimulated healthy growth of the sector, and imparted good results. Today, the production environment is challenged by adverse impact of climate change, decreasing marginal rate of returns on investment in irrigated areas, less than desired levels of growth in the majority parcel of the country's agriculture system, i.e., rainfed agriculture system. It accounts for 52 per cent in terms of net cultivated area, about half the total population of the country and two-thirds of livestock strength.

Committed as India is to welfare of all sections of the society, it entails that focus is brought on the rainfed areas that are relatively less endowed and the per ha returns are low, and consequently the farmers are poorer. With suitable emphasis on the rainfed tracts, by converging technology, management practices and policy support India will be able to address the challenges that come from low productivity and low farm returns, which issues gain currency from the expected higher negative impact from climate change in these areas. Simultaneously, it would be useful to appreciate, that marginal rate of returns on investments in the rainfed areas are likely to be higher, thereby benefitting the country's agricultural economy at macro-level, and the rainfed farmers at individual level.

The "Everything Everywhere" approach of taking up all major interventions uniformly across all regions of the country is not the way forward, given competing demands on all

resources, including financial resources. Apart from this constraint, from the view point of equitability it is important to always bring first focus on the marginal areas and sections of the country, and correct growth imbalances. Hence, the importance of Prioritization of the districts in co-opting the weaker ones into developmental ambit.

The Government of India in accepting the recommendations of the Group of Secretaries constituted in the year 2015-16 has committed itself to treat 150 districts, identified as most critical in terms of vulnerability. This list was picked up based on ICAR's NICRA (National Initiative for Climate Resilient Agriculture) Study.

The National Rainfed Area Authority (NRAA), mandated to drought-proof the vulnerable districts found that vulnerability is not a function of parameters linked to climate or even the larger set of natural resources alone. Any state of vulnerability is also influenced in a major way by the livelihood related parameters. In its opinion, a comprehensive and sustainable drought-proofing is possible when the districts are delineated based on a more wholesome set of criteria, that transcend natural endowments. Following this, NRAA fell back upon its own comprehensive study undertaken in the year 2012 that prioritized the districts based on a number of indicators combined into 'Rainfed Area Prioritization Index (RAPI). This was an index that was optimised based on Natural Resource Index (NRI) and Integrated Livelihood Index (ILI). An examination of the relevance of this as a tool to Prioritize the rainfed districts for treatment at this juncture, brought to light its shortcomings arising from major changes that described the eight (8) years since its roll out. These included visible impact of climate change, upgradation of physical & social infrastructure status and reorganisation of states & district boundaries in the country.

In the above context, and realising the value of revisiting the 2012 Study, NRAA constituted a Task Force in 2018 with members from different organisations (ICAR-CRIDA, NRAA, MNCFC, ISRO-NRSC, Ministry of Water Resources, and Central Ground Water Board) with an objective to prioritize the districts based on comprehensive set of parameters, that reflect more sharply the changed status of natural resources and socio-economic character of the districts. It was also decided, that the aggregate index should be built in such a manner, as to help in not only prioritizing the rainfed area districts for purpose of drought-proofing, but also be considered adequate in prioritizing the districts by various Ministries and Departments at both central and state levels in making interventions relating to development and welfare. Hence, the combined index that has evolved is a Composite Index (CI) based on Natural Resource Index (NRI) and Integrated Livelihood Index (ILI). Intense discussions with a spectrum of experts from biological and social sciences in addition to various policy makers representing both national and international organisations, larger number of representative parameters were chosen. As a sequence, the number of parameters chosen were 14 for NRI and 18 (socio-economic-10; infrastructure-5; health & sanitation-3) for ILI, and the districts ranked for vulnerability increased from 499 in 2012 Study to 670 under this current Study.

The Study ranks all the identified 670 districts (in contrast to 490 in 2012 Study) based on vulnerability under NRI, ILI and Composite Index. Further, it identifies the top 168 districts (comprising 25 per cent of districts under Study) based on composite score as ‘high priority’ rainfed districts for interventions, that will enhance natural resources and livelihood outcomes. It also suggests, that these 168 NRI ranked districts can also be considered as water stressed districts, and taken up for needed amelioration measures. Further, the top 168 districts under ILI can be considered as priority districts by various Ministries & Departments, and agencies under them for intervening with programs & schemes, that relate to livelihood status.

Two other unique features of this Study include defining ‘Rainfed Areas’ and suggesting a mechanism for building & managing a centralised data base vis-à-vis the basket of indicators necessary to upgrade priority status on a continuous basis, in terms of vulnerability.

I am convinced, that the Study is highly comprehensive and appropriate in delineating vulnerability factors, and districts based on them. We at NRAA are also confident, that the Prioritization indices built by the Task Force are objective and transparent, and therefore any Ministry, Department and Agency including NRAA itself will find the Report very useful. It has been rightly entitled as “Prioritization of Districts for Development Planning in India – A Composite Index Approach”

It is with great pleasure, that I congratulate Dr. B. V. Venkateswarlu, Chairman of the Task Force and all the members. Dr. Venkateswarlu brings to bear upon this Report his decades of engagement with dryland agriculture as a scientist and an administrator. All the members were exceptional, and they have contributed their best of intellectual inputs backed by wisdom & experience, as also concern & commitment to the cause of our country’s agriculture sector & farmers. The entire Study was housed in ICAR-CRIDA, which was also the knowledge-Partner of this initiative. This institute of repute headed by the dedicated Dr. G. Ravindra Chary, Director, and his colleagues Dr. K V Rao, Dr BMK Raju, Dr CA Rama Rao deserve special thanks. This team of Dr. Ravindra Chary and NRAA team led by Shri Bisweswar Rath, Technical Expert (Water Management) willingly shouldered direct responsibility in bringing out this Report. The contributions of Dr Shibendu S Ray, Director, MNCFC, Dr CS Murthy, NRSC and Sri Sandeep Ranjan, CWC are also highly appreciated. I am also thankful to Dr. SK Chaudhari, DDG, (NRM) and Dr. S. Bhaskar, ADG (AAF & CC), both representing senior management of ICAR, for their critical review and inputs.



(Ashok Dalwai)



## CONTENTS

<b>Chapter</b>	<b>Title</b>	<b>Page</b>
	Executive Summary	xi
<b>1.</b>	<b>Rainfed Areas – Approaches to Identification &amp; Evolution of Interventions</b>	<b>1</b>
1.0	Background	1
1.1	Planning for Prioritization	5
1.2	Irrigation Commission (1972)	5
1.3	India Meteorological Department	5
1.4	Ministry of Rural Development	6
1.5	Planning Commission	6
1.6	Indian council of Agricultural Research (ICAR)	7
1.6.1	National Agricultural Research Project (NARP) zones	7
1.6.2	Agro-ecological regions (AERs)	7
1.6.3	Production systems Approach (NATP)	7
1.6.4	ICAR-CRIDA: Revisiting Drought Prone Districts-	8
1.6.5	Identification of districts with varying climate change risk - NICRA	9
1.7	National Rainfed Area Authority (NRAA)	9
<b>2.</b>	<b>Re-prioritization of Rainfed Districts – Constitution of Task Force</b>	<b>11</b>
2.0	RAPI 2012 and Need for Re-visit	11
2.1	Constitution of Task Force	12
2.2	Definitions	12
<b>3.</b>	<b>Building a Prioritization Index</b>	<b>15</b>
3.0	Prioritization Index	15
3.1	Data and Methodology	15
3.2	Selection of Indicators	16
3.3	Processing of Data	20
3.4	Results	21
3.4.1	Natural Resource Index (NRI)	21
3.4.2	Integrated Livelihood Index (ILI)	29
	3.4.2.1 Socio-economic indicators	32
	3.4.2.2 Infrastructure indicators	36
	3.4.2.3 Health and sanitation indicators	37
3.4.3	Composite Index (CI)	44

<b>Chapter</b>	<b>Title</b>	<b>Page</b>
<b>4.</b>	<b>Deployment of NRI, ILI and CI for Developmental &amp; Welfare Interventions</b>	<b>51</b>
4.0	Utility of Prioritization Index by Ministries and Departments	51
4.1	Ministry of Agriculture & Farmers Welfare	51
4.2	Ministry of Rural Development and Panchayati Raj	52
4.3	Jala Shakti - Department of Water Resources	52
4.4	Ministry of Tribal Welfare	53
4.5	Ministry of Environment, Forests and Climate Change	53
4.6	Ministry of Animal Husbandry, Dairying & Fisheries	54
4.7	Ministry of Skill Development	54
4.8	NITI Aayog	54
4.9	New Initiatives for Rainfed Areas Development	54
4.10	Deployment of Prioritization Tools for other agencies	54
<b>5.</b>	<b>Rainfed Agriculture - Building &amp; Maintaining Centralised Database</b>	<b>55</b>
5.0	Need for a Common Database	55
5.1	Template for Data Collection and Maintenance of Centralized Database	56
5.1.1	Template for data collection - Individual farm holdings	58
5.1.2	Template for rainfed area production system	58
5.1.3	Template for irrigated area production system	59
5.2	Dynamic Information System for Rainfed Districts - An Institutional Mechanism	59
<b>6</b>	<b>Annexure</b>	
I	National Ranking of Districts	66
II	Intra-state Rank drawn from National Ranking	85

## EXECUTIVE SUMMARY

Rainfed cultivated areas currently constitute 52 per cent of the net sown area of the country, in spite of large-scale investments in irrigation sector over time. Improving the productivity and profitability of rainfed agriculture is critical to achieving inclusive and sustainable agricultural growth in the country given its demographic, economic and ecological importance from the national perspective. In order to guide investments and interventions, the National Rainfed Area Authority (NRAA), through a comprehensive study undertaken in the year 2012 prioritized the districts based on a number of indicators combined into ‘Rainfed Area Prioritization Index (RAPI). This comprised Natural Resources Index (NRI) and Integrated Livelihood Index (ILI).

Prior to that, the guidelines and approaches adopted in respect of Drought Prone Areas Program (DPAP) and Desert Development Program (DDP) were largely based on two factors – climate and irrigation. Given the complex nature of agricultural production system, a more comprehensive approach was felt necessary to guide investments in rainfed agriculture.

Over the last 8 years since 2012, the country has seen reorganization of states and districts, taking their respective count to 29 and 720 respectively. There has also been increase in area brought under new sources of irrigation. However, of the area considered as irrigated, as high as 60 per cent is irrigated by groundwater, and this in reality is ‘rain dependent irrigated area’ where rainfall is the major source of recharge. The contribution of such areas from permanent pastures, grazing lands, miscellaneous trees and shrubs, etc. is significant, and is well worth the consideration in planning for a more holistic resource management within rainfed areas. These two factors have mostly remained out of the purview of planning so far. The third critical influencer of rainfed agriculture in particular, and agriculture production system at large, is the certainty with which climate change has begun to play out. This dimension has only got clearer since the roll out of RAPI, 2012.

With the country’s extensive experience with various developmental initiatives since independence, and a rich repertoire of learnings therefrom, it has become obvious that not just the state of natural resources, but also the state of human development is equally important in delineating the status of vulnerability, and the nature of interventions needed to achieve the goal.

In the light of the changed circumstances as supra, the NRAA considered that it is time to revisit the prioritization study for steering and facilitating investments in the near and medium term. Following this decision, NRAA constituted a Task Force with members from different organizations, namely, NRAA, ICAR-CRIDA, MNCFc, ISRO-NRSC and Ministry of Water Resources- Central Water Commission to evaluate the Index in currency and examine the parameters that constituted it, and redesign appropriately for a sharper response to the changed socio-economic and climate change context, with a view to reprioritizing the rainfed districts and areas within them.

The terms of the Task Force included, (a) to suggest clear definition of rainfed area with dimensions, that are acceptable to different user agencies, (b) to finalise the Natural Resource Index (NRI) and Integrated Livelihood Index (ILI) parameters, and the process of the aggregation for prioritization

of rainfed districts, (c) to suggest a template for collection of data and maintenance of centralized database on rainfed agriculture for use by both central and state level agencies, (d) to suggest an institutional mechanism with consortium of national agencies to periodically generate dynamic information system for rainfed districts, and (e) to reorder 150 districts identified earlier as vulnerable, based on revisited RAPI and reorganization of districts, as also suggest 50 of these most critically drought prone districts for first phase drought- proofing interventions.

The Task Force, besides defining the rainfed areas, dryland areas etc. considered monsoon rainfall, expanded the scope of rainfed areas to include undependable groundwater irrigated areas, permanent pastures, fallow and degraded wastelands etc. (which impact livestock- based systems), so that interventions can be tailored more wholesomely.

The concept of Rainfed Areas Prioritization Index (RAPI) developed in the earlier Study (2012) by NRAA, ICAR-CRIDA and IASRI was retained with necessary changes, to prioritize the rainfed areas.

The Study considered 'district' as a unit, as it is the lowest level integrated unit of administration and development. This Study covered 670 districts by excluding totally urban districts like Delhi, Chennai, Mumbai, Kolkata, Bengaluru, Hyderabad etc., and UTs. In the absence of data for any district related to particular parameter, data of the old (mother) district was assigned to the new district as a proxy.

In a series of brainstorms with the knowledgeable drawn from both government and non-government bodies, there emerged a consensus that a composite index with due weightage to both, the state of natural resources and livelihood opportunities was important in prioritizing in rainfed districts. Following elaborate deliberation in this regard, Rainfed Areas Prioritization Index (RAPI) was derived by assigning two-thirds weight to natural resource priority index and one-third to livelihood priority index. The first 168 districts accounting for 25 per cent of the total number of districts based on RAPI were identified to be considered as of 'very high' priority status. The Task Force is of the opinion that these districts based on RAPI score deserve to be considered as high priority rainfed districts, and necessary interventions made for improving the status of natural resources and livelihood outcomes.

Further, the list of 168 districts arrived at, as very high priority under NRI may be used for natural resource-based interventions, and can also be considered for interventions sought to be made under the category of water stressed districts.

Like-wise, the top 168 districts identified based on ILI may be taken up by developmental ministries/ departments and agencies responsible for rural development, education, health, tribal welfare etc. to plan for their livelihood improvement programs.

Further, based on intense discussions and suggestions from NRAA, the Task Force suggests that RAPI score-based ranking of districts for prioritization can be used for overall development and welfare intervention decisions. In such a case, it can be considered as '**Composite Index (CI)**'. All the selected 670 districts have been evaluated, and *inter-se* rankings are available based on NRI, ILI and CI, along with respective utilitarian maps, which can be used for a well-informed intervention decision by the concerned developmental & welfare Ministries/Departments at both central & state levels.

# CHAPTER 01

## RAINFED AREAS – APPROACHES TO IDENTIFICATION & EVOLUTION OF INTERVENTIONS

### 1.0. **Background**

India since independence has transitioned from largely an agricultural economy to a diversified economy, with secondary and tertiary sectors coming to drive the growth. The share of agriculture, that constitutes the primary sector in the country's gross value added (GVA) has declined steadily from a high of 63 per cent in 1951 to less than 15 per cent now. However, the importance of the agriculture sector cannot be discounted, when the welfare of farmers in particular and citizens at large is the goal being pursued. A high of 48 per cent of the country's total population depends on agriculture directly and indirectly for livelihood. It is also well recognized, that a healthy growth of the primary sector is *a sine qua non* for registering robust growth rates in the two other sectors of the economy. The food and nutrition security of the country's growing population is always considered as a moral mandate of the agriculture sector.

That, agriculture sector with a relatively lower share of the nation's GVA supports a large percentage of its people is reflective of disparities in incomes. Accelerating and sustaining the growth in agriculture, is therefore, essential in order to fulfil the country's egalitarian objective of inclusive growth, while also meeting the Sustainable Development Goals, 2030 that India is committed to.

There have been significant gains in agricultural productivity and production in the country since Independence. The country is among the leading producers of commodities such as rice, wheat, groundnut, cotton, fruits, vegetables, milk, meat and eggs. Cumulatively, the nation's farmers produced more than 1200 million tons of various agricultural commodities. A combination of factors - technological, infrastructural and policy, supplemented by the receptivity and ingenuity of the farmers-community has been responsible for the progress witnessed. The technological bouquet comprised availability of high yielding varieties, access to irrigation and use of agro-chemicals. The policy framework has been a package of input support, price support via minimum support prices and procurement besides credit at concessional rate. A healthy agricultural extension system across the country brought about transfer of technologies to the farmers, and completed the intervention loop.

The paradigm-shift in the status of India's agriculture described as 'Green Revolution' has however been largely confined to regions endowed with irrigation facilities, a select set of crops and to the farmers who could access these resources. This is not to say, however, that there have been several targeted programs for the rainfed regions of the country, starting with DPAP (Drought Prone Area Program) and DDP (Desert Development Program) initiatives in the early 1970s. The initiatives have over the period evolved into many more programs, including the comprehensive watershed development program. An objective and comprehensive comparison in terms of technology, policy support and capital investment does bring out the relative disadvantage that the country's rainfed systems have suffered. The result is the relative difference in the growth rates of agriculture between the irrigated and rainfed agricultural systems of the country. This is best manifested by a low average output of 1.1 ton per ha. in rainfed areas as against a high of 3.0 tons in irrigated systems. The unfortunate manifest is higher levels of relative poverty in rainfed arid, semi-arid and dry sub-humid regions. The downside of high growth in irrigated areas is the state of degraded soils and decline in groundwater.

The nation is committed to doubling farmers' income by 2022 when 75<sup>th</sup> year of its independence, and 150<sup>th</sup> year of Mahatma Gandhi's birth are celebrated. This warrants an accelerated, as also a more inclusive growth of agriculture, with emphasis on the relatively poorer regions enabling them to catch up with those better endowed. From the perspective of the country's demography and the advantage that can be garnered from the high density of younger-aged, the country's aim has to transcend from food security to nutrition security. The latter can lay the needed foundation for a healthy society. Nutrition security necessitates enhancing the output of pulses, nutri-cereals, horticultural produce, milk, egg and meat. At the granular level, the country is not only food secure, but also food surplus, sometimes to the disadvantage of the farmers in case of certain commodities where excess supply has been causing dampened prices in the markets. This entails a more rational and market-led production decision at the farm level.

The vast rainfed regions of the country are the ones that now need to be tapped for achieving higher average income for the farmers, better nutrition for the citizens and ameliorating the ecology in general. The rainfed regions, which are major contributors of the nation's total output in case of nutria-cereals, pulses and oilseeds, can make a leap forward with suitable interventions. Various fibre crops including cotton, dryland fruits and agro-forestry species are appropriate for these cultivation tracts. With increased productivity and post-harvest facilities, rainfed regions can enhance the nation's nutrition security and increase the farmers' incomes paving way for a more inclusive development.

Thanks to significant investments made in irrigation infrastructure, the area cultivated under rainfed conditions decreased from about 98 million hectares (Mha) in the year 1950-51 to 71.7 Mha in the year 2014-15, accounting for 51.2 per cent of the net sown area of the country. The rainfed region accounts for 46 per cent of the country's total food grain output, and is home to two thirds of livestock and 40 per cent of human populations. In order to achieve sustainable food production and overall development of agriculture in the country, it is essential to enhance the productivity and profitability, minimize risk and

improve livelihood status of millions of people depending on rainfed agriculture. Though a large number of technologies have been generated by the National Agricultural Research and Education System (NARES), for various reasons the field situation does not show the desired level of their impact.

Rainfed cultivated areas (including dryland areas) are broadly defined as those which are essentially dependent on rainfall for agriculture. The areas are spread across different agro-climatic zones {arid, semiarid (dry and moist), sub humid (dry and moist) and per humid} characterized by diverse soil types. Irrespective of rainfall zones, uncertainty prevails in these areas for crop cultivation in both the principal crop growing seasons (*kharif* and *rabi*), primarily because of the uncertainty associated with monsoon rainfall.

The green revolution technology with emphasis on improved seeds, nutrients and dependable irrigation has largely by-passed the rainfed agriculture. The areas bestowed with abundant rainfall have also been left out of the growth story. Recurrence of monsoon fluctuations and concomitant drought in rainfed/ dryland areas, led the policy makers to think long term and roll out suitable programs. The Drought Prone Area Program (DPAP) and Desert Development Program (DDP) were the first ones to be launched by central government in different states. These were followed by several other initiatives for improving rainfed farming systems. The Initial approach of providing relief during periods of drought in rainfed areas gave way to more focused strategy of building drought resilience. This paved way for introduction of Model watershed development programs like, NWDPRA (National Watershed Development Program for Rainfed Areas) and IWMP (Integrated Watershed Development Program) in both forest and non-forest areas.

The “Everything Everywhere” approach of taking up all major interventions uniformly across all regions of the country cannot yield anticipated gains. The specific needs of rainfed farming besides their characterization are of paramount importance. Earlier, most of the efforts of demarcation of dry farming regions in India (Sarkar et al., 1982) and its characterization (Soman and Kumar, 1990) were on the basis of rainfall variability within the range of 400 to 1000 mm of rainfall (Das and Kore, 2003). Identification of drought prone areas for mitigation purpose through creation of productive assets was done based on rainfall, extent of irrigated area, availability of other avenues for employment in the same area during drought and frequency of occurrence of drought. The rainfed areas *per se* (beyond the purview of drylands) didn't get focused attention for increasing production and productivity. During the later days, the prioritization of rainfed areas/districts concentrated mainly on a few parameters like percentage irrigation, BPL (below poverty line) families, aridity index, etc. and these became the basis for formulating specific area developmental programs. The Study commissioned by NRAA in 2011 made efforts to capture aspects like livelihood, soil resources, irrigation intensity, socio-economic profile, infrastructure, communication means, etc.

In the dynamic context discussed above, and several other changes at the ground level including the visible impact of climate change, it was felt necessary to revisit the prioritization index and the associated parameters for identifying and ranking rainfed districts based on drought-proneness.

- I. Large scale investments on major, medium and minor irrigation infrastructure have increased the area under irrigation. Over the period of 8 years (2008-09 to 2015-16) an additional area of about 3.66 Mha (5.7 % increase) of area has been brought under net irrigated area, which has in turn resulted in increase of 7.73 Mha (8.9 % increase) in terms of gross irrigated area. Area irrigated by tube wells increased by 3.8 Mha (13%), while canal irrigated witnessed a decrease of about 1.7 Mha (10%). The states that recorded significant increase in the number of districts with irrigation facilities were Gujarat, Madhya Pradesh, Rajasthan, Karnataka, Tamil Nadu, Uttar Pradesh, Haryana and Bihar.
- II. Climate shift has effected spatial changes in climate zones in about 27 per cent of the geographical area in the country. A substantial increase of aridity is well evident in Gujarat, with the districts *viz.*, Patan, Porbandar, Amreli and Bhavnagar turning arid from their earlier state of semi-aridity. Arid zone as a whole decreased in Haryana as Sonipat, Rohtak, Jhajjar, Rewari and Gurgaon districts transitioned into semi-arid status. Number of districts with semi-arid climate increased in the states of Madhya Pradesh (8 districts), Tamil Nadu (7 districts) and Uttar Pradesh (4 districts) due to the shift of climate from dry sub-humid to semi-arid.
- III. Dependence of irrigation source on rainfall: It is important to examine the source of irrigation, as it influences the availability of water for irrigation. For instance, the status of aquifer determines the water discharge from a bore well. Uncertainty in availability of groundwater in non-canal command area systems is more compared to that in canal command areas. Within canal systems also, irrigation is more assured in canal command areas where inflow into reservoirs is dependent on melting of snow. Rain dependent rivers often encounter delay in monsoon, and as a sequel suffer from inadequate flow over both space and time.
- IV. High variation in the criteria adopted in various states for identifying rainfed and irrigated areas/crops.
- V. Contribution of land uses other than net (rainfed cultivated) sown area to systems of rainfed agriculture: The rainfed systems are considerably influenced by environmental and economic functions made possible by such categories of land uses as permanent pastures, open grazing lands, etc. Such land use status also deserves to be taken into account for prioritization. There exists an extent of about 10.2 Mha of permanent pastures and other grazing lands in the country which are predominantly rainfed.
- VI. Drought proneness: With shift in time period from 1975-2005 to 1986-2015 used for computation of drought- proneness, and change in annual scale to seasonal scale (June to October), a change is being observed in drought proneness.
- VII. Change in socio-economic conditions: The earlier exercise on prioritization of rainfed areas considered a number of socio-economic indicators. These have undergone major changes over time in response to various developmental and welfare programs of the central and state governments. This, along with the changes in climate and irrigation status can be expected to have potentially altered the relative importance of rainfed

agriculture in different districts.

VIII. Change in number of districts for DPAP/DDP programs- Considering the observed changes in climate and the investments made in expanding irrigation facilities, 27 districts became eligible for DPAP which were otherwise not eligible during 1994. Eighteen (18) of these 27 belong to eastern India, viz., Jharkhand, Chhattisgarh and Odisha. Of the remaining, seven (7) districts became eligible for DPAP inclusion due to change in climate, and these belong to Himachal Pradesh, Madhya Pradesh and Maharashtra States. Two other districts, namely, Bhilwara of Rajasthan and Visakhapatnam of Andhra Pradesh became DPAP-eligible on account of reduction in percentage of net irrigated area (NIA) to net sown area (NSA).

Among the existing DPAP districts numbering 178, as many as 83 were found not eligible for continuation under DPAP, while 3(three) were found fit for inclusion under DDP. Further, nineteen (19) of the 40 DDP districts were now found to be ineligible for continued coverage due to climatic shifts.

### **1.1. Planning for Prioritization**

The following is a brief historical account of various classification systems adopted for identification of rainfed/ drought -prone districts in the country over time. The discussions also include delineation of the country into different agro-climatic, and agro- ecological regions/ sub-regions. Different approaches followed by the Irrigation Commission, Indian Meteorological Department, Ministry of Rural Development, Planning Commission, Indian Council of Agricultural Research, and National Rainfed Area Authority have brought into pale of examination.

There has been significant increase in the number of districts across the country, as seen from 593 in 2001 to 640 in 2011 and 720 during 2018.

### **1.2. Irrigation Commission (1972)**

The Irrigation Commission considered drought as a meteorological phenomenon resulting from an imbalance between the soil moisture and evapotranspiration needs of an area, over a fairly long period, so as to cause damage to standing crops and a reduction in crop yield. The criteria considered include:

- When the annual rainfall is less than 75 per cent of the normal in 20 per cent of the years examined
- Less than 30 per cent of the cultivated area is irrigated.
- Community Development Block is the unit considered for delineation.

### **1.3. India Meteorological Department**

The IMD defines a period of drought as a year or season, in which the total rainfall is less than 75 per cent of the normal. It is further classified as a year or season of 'moderate drought' if rainfall deficit is between 26 per cent and 50 per cent, and a year or season of 'severe drought' when it is more than 50 per cent.

Based on above definition of drought, if it occurs in at least 20 per cent of the years during a long period of years over an area, according to IMD that area may be classified as a 'drought prone area; and if the frequency is 40 per cent or more, then such area may be termed as 'chronically drought prone area'.

#### **1.4. Ministry of Rural Development**

The Drought Prone Areas Program (DPAP) is the earliest area development program launched by the Ministry of Rural Development, Government of India as early as in the year, 1973-74 to address the problems of rainfed areas chronically affected by drought. Similarly, Desert Development Program (DDP) was launched during the year, 1977-78 to address the problems of hot and cold desert areas. Initially, the program adopted the criteria suggested by Irrigation Commission in addition to some other relevant factors. The Task Force on DPAP and DDP constituted under the chairmanship of Dr. M.S. Swaminathan in the year 1982 suggested for exclusion of some areas under the program and inclusion of new areas on the basis of irrigation, rainfall and extent of coverage under DPAP.

Subsequently, a High-Level Technical Committee was constituted in April 1993 under the chairmanship of Prof. C.H. Hanumantha Rao to critically review the program in terms of methodology for exclusion and inclusion of new areas and modification, if any, under DPAP and DDP, besides evaluating effectiveness of implementation. The Committee developed an objective criterion to identify districts and blocks to be covered under DPAP and DDP. It divided the entire nation into six (6) climatic zones based on the concept of moisture index, calculated by using the formula  $[(P-PE)/PE]*100$ , where, P stands for Precipitation and PE for Potential Evapotranspiration.

Further, based on the percentage of irrigated area within each climatic zone, districts and blocks were identified for inclusion under DPAP and DDP.

According to this criterion, the districts having arid climate ( $MI < -66.7$ ) and net irrigated area of not more than 50 per cent were considered under DDP. Within the district, blocks having less than 30 per cent of irrigated area were considered for inclusion under DDP.

As regards DPAP, the districts with semi-arid climate ( $MI = -66.6$  to  $-33.3$ ) and net irrigated area of not more than 40 per cent were considered for inclusion. Like-wise, those districts with dry sub-humid climate having net irrigated area of not more than 30 per cent were also made eligible for coverage under DPAP (MoRD, 1994). At block level, the cut off limit for irrigated area for inclusion was 20 per cent in semi-arid districts, and 15 per cent in dry sub humid districts.

#### **1.5. Planning Commission**

The then Planning Commission (Khanna, 1989) identified 15 agro-climatic regions in the country, 14 in the main land and one covering the islands of Bay of Bengal and the Arabian Sea. The Planning Commission aimed at regionalization of the Indian agricultural economy and attempted to bring integration of plans of the Agro-Climatic Zones (ACZs) with the state and national plans.

## 1.6. Indian Council of Agricultural Research (ICAR)

### 1.6.1. National Agricultural Research Project (NARP) zones

The concept of homogenous Agro-Ecological Zones (AEZs) was initiated by the ICAR in 1979 under the National Agricultural Research Project (NARP), with support from International Bank for Reconstruction and Development (IBRD).

Under NARP, the concept of zoning was mainly based on ecological land classification, recognizing various components like soils, climate, topography, crops, vegetation, etc., as major influencing factors for technology development and dissemination.

The zones were selected as contiguous areas within the state boundary, and to the possible extent zones having homogeneous physical characteristics such as topography, rainfall, soils, cropping patterns and irrigation availability. By and large, each NARP zone covers 2-4 districts and is spread over an area as high as 40-50 thousand sq.km. Under NARP, the country was divided into 127 agro-climatic NARP zones falling under 17 major states and 6 States/ Union Territories of North Eastern Hills Region. Of the total 127 NARP zones, 73 are predominantly rainfed.

### 1.6.2. Agro-Ecological Regions (AERs)

The National Bureau of Soil Survey and Land Use Planning (NBSS & LUP), Nagpur has come up with 20 agro-ecological regions (Sehgal et al., 1992 and 1995) for the country and 60 Agro-Ecological Sub-Regions (AESR).

The major criteria for the delineation of sub regions were: (i) length of growing period as an integrated criterion of effective rainfall, (ii) soil groups enjoy precedence over physiography, (iii) delineated boundaries adjusted to district boundaries, and (iv) number of regions as minimal as possible. This approach helps to identify suitable cropping/ production systems for each sub region and for the appropriate technology development.

### 1.6.3. Production systems Approach (NATP)

The NARP and AESR systems of classification are based on area approach. In contrast to these, under the National Agricultural Technology Project (NATP), ICAR introduced development of technologies based on production systems. The identification of dominant rainfed districts for rainfed crops, it was the cultivated area under rainfed conditions chosen as a major parameter. The districts having larger share of rainfed cultivated area under a particular crop are chosen for on-farm research purpose. Accordingly, districts-with highest area under a given crop/cropping system but with stagnant, declining or low productivity were considered as high priority districts. The underlying implication of this approach was, that any improvement in the productivity of crops and livestock in such districts will have a greater impact at the state and national levels due to the involvement of large area/ number of farmers (NATP, 2004). Research programs were developed to address the issues and constraints in these dominant rainfed crop- based districts. This approach is completely different from the approach of Irrigation Commission, which classified districts based on percentage of irrigated area without reference to the crop.

In this approach, the rainfed agro-ecosystem was sub-divided into 5 (five) homogenous production systems, viz., Rainfed rice-based system, Nutritious cereals (coarse, now renamed as nutria-cereals)- based system, Oilseeds-based system, Pulses-based system, and Cotton-based system.

The rainfed rice production system is mostly prevalent in eastern and north eastern parts of the country, which receive high average rainfall.

#### **1.6.4. ICAR-CRIDA: Revisiting Drought Prone Districts**

Climate change literature pertaining to India showed enough evidence of rising mean temperatures during the post-1970 period. Raju et al. (2013) revisited the climatic classification at district level to examine changes in climate, if any, compared to the climatic classification given by Krishnan (1988). Raju et al. (2013) in their Study used rainfall and average potential evapotranspiration data sets for the period 1971–2005, and indicated a climatic shift in about 27 per cent of the geographical area in the country. A substantial increase of aridity was well evident in Gujarat, as the districts *viz.*, Patan, Porbandar, Amreli and Bhavanagar turned arid from the semi-arid. Arid zone as a whole decreased in Haryana. Number of districts with semi-arid climate increased in the States of Madhya Pradesh (8 districts), Tamil Nadu (7 districts) and Uttar Pradesh (4 districts) as the climate shifted from dry sub-humid to semi-arid. Most important difference under this Study when compared to Krishnan (1988) was shift of climate from moist sub-humid/humid to dry sub-humid in Odisha (12 districts), Chhattisgarh (7 districts), Jharkhand (4 districts) and Madhya Pradesh (5 districts) to a great extent. Among various shifts observed, the shift from moist sub-humid to dry sub-humid was the largest (7.23 % geographical area) followed by per-humid to humid (3.34%) and dry sub-humid to semi-arid (3.07%). About half of the moist sub-humid districts in eastern India (other than West Bengal) had turned dry sub-humid.

Venkateswarlu et al. (2014) revisited the eligibility of districts under DPAP and DDP as per the criteria given by C.H. Hanumantha Rao Committee. With updated data, 27 districts became eligible for DPAP which were otherwise neither DPAP nor DDP district during 1994. Eighteen (18) of these 27 belong to eastern states *viz.*, Jharkhand, Chhattisgarh and Odisha. The districts, namely, Ranchi, Gumla, East Singhbhum and West Singhbhum of Jharkhand; Jharsuguda, Sundargadh, Kendujhar, Koraput and Rayagada of Odisha; and Sarguja, Koriya, Raigarh, Jashpur and Kanker of Chhattisgarh became eligible for coverage under DPAP due to climatic shift in these districts from moist sub-humid to dry sub-humid. The districts from other states that became eligible for inclusion under DPAP due to change of climate were Shimla from Himachal Pradesh, Dindori and Mandla from Madhya Pradesh and Wardha from Maharashtra, Kollam from Kerala and UT of Daman & Diu. Further, some districts, namely, Bhilwara of Rajasthan and Visakhapatnam of Andhra Pradesh became eligible for DPAP coverage due to reduction in percentage NIA to NSA.

No district from general pool got eligibility to be covered under DDP. As many as 83 districts of the 173 under DPAP were found not eligible for the program as per the criteria, and three (3) districts were found eligible for DDP. The remaining 92 districts continued to be eligible for DPAP. The three (3) districts that became eligible for inclusion under DDP coverage were

Porbander, Amreli and Bhavanagar in Gujarat state, which experienced a shift of climate from semi-arid to arid status.

#### **1.6.5. Identification of districts with varying climate change risk - NICRA**

A district level assessment of risk and vulnerability to climate change was done as part of ICAR flagship programme of National Innovations in Climate Resilient Agriculture (NICRA). This assessment identified districts with different levels of risk by following the framework given in the Fifth Assessment Report (5<sup>th</sup> AR) of the Intergovernmental Panel on Climate Change (IPCC). The risk was computed as an aggregate of exposure, vulnerability and hazard.

Vulnerability captures those elements that predispose the system to hazard. Climate hazard was captured in terms of a number of agriculturally relevant indicators derived from CMIP-5 climate projections based on RCP 4.5 for the period 2020-49. Vulnerability is found to be 'high' and 'very high' in 171 and 22 districts, respectively. Many of them lie in Rajasthan, Maharashtra, Jharkhand, Odisha, Arunachal Pradesh, Chhattisgarh, Madhya Pradesh and Karnataka States. The districts with 'low' and 'very low' vulnerability lie in Uttar Pradesh, Haryana, Punjab, Tamil Nadu, West Bengal, and Gujarat States.

Risk is the resultant of interaction among exposure, vulnerability and hazard. The analysis indicated 'very high' risk for 109 districts spread across Uttar Pradesh, Rajasthan, Bihar, Kerala, Uttarakhand, Odisha, Punjab, Karnataka and Gujarat States. Most of the 201 districts with 'high' risk are in Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Karnataka, Rajasthan, Bihar, Odisha and Maharashtra. These districts deserved to be assigned high priority while planning for measures for protecting agriculture and farmers from the adverse impacts of climate change.

#### **1.7. National Rainfed Area Authority (NRAA)**

**Rainfed Areas Prioritization (2012):** Realizing the importance of characterization of rainfed areas of the country, and to prioritize the districts based on natural resource and livelihood parameters, National Rainfed Area Authority (NRAA) identified two premier institutes of ICAR, namely, Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad and Indian Agricultural Statistics Research Institute (IASRI), New Delhi for the purpose.

The study conducted in 2011-12, identified two components, viz., natural resources and livelihood status, and integrated their outcome to prioritize the rainfed areas of the country. ICAR-CRIDA developed a "Natural Resource Index" (NRI) comprising nine (9) variables, viz., rainfall, frequency of drought, available water content, extent and percent of degraded and wastelands, irrigation intensity, extent and per cent of rainfed areas and ground water status. In respect of livelihood status, it was ICAR-IASRI that constructed an "Integrated Livelihoods Index" (ILI), which was a composite of three sub-indices, viz., socio-economic index, health and sanitation index and infrastructure index. Both, NRI and ILI were constructed as a weighted sum of the relevant variables by assigning weights generated from Principal Component Analysis (PCA).

The Study considered 'district' as a unit, and almost all the districts as per Census 2001 (excluding urban dominated districts viz., Delhi, Mumbai, Kolkata, Chennai, Bengaluru and Hyderabad) were covered for prioritization. Common minimum data set available across the country led to inclusion of 499 districts. These districts accounted for a major part of the country's population and area. Some of the districts from north eastern region, Goa, Jammu & Kashmir and union territories were left out from the analysis due to non-availability of data.

Rainfed Areas Prioritization Index (RAPI) was derived by assigning due weightage to natural resource priority index and livelihood priority index as per consensus reached among subject matter specialists. Accordingly, the top one-third districts, based on RAPI score were considered as high priority districts, which deserved focused and immediate development activities making use of the government programmes and schemes.

## CHAPTER 02

# RE-PRIORITIZATION OF RAINFED DISTRICTS – CONSTITUTION OF TASK FORCE

### 2.0. RAPI 2012 and Need for Re-visit

The 2012 Study – Rainfed Area Prioritization Index (RAPI) commissioned by NRAA for identification and prioritization of rainfed districts needed to be revisited, notwithstanding an elapse of just 8 years since then.

Over a period of time, it has been recognized, that not only cultivated areas, but also wastelands, pastures etc. also contribute to livelihoods and rainfed production systems. These in the form of Common Property Resources (CPRs) provide options for various activities like livestock- based systems. But these were not included in the prioritization of districts for policy support. Also, groundwater- based irrigation was considered as area under assured irrigation without considering the challenges of rapid depletion of water table, as exploration has been beyond replenishment in some areas. It is therefore more appropriate to consider the constraints arising as a result of variations in nature, seen as unreliability in terms of supply/ recharge, in preference to man- made problem of over-use of available groundwater.

As explained in Para 1.0, in the last decade the country has witnessed a noticeable change in climatic trends, infrastructure facilities and commercial & industrial activities, altering the profile of various districts particularly in the context of agriculture operations, soil health, land use, choice of production system, farmers income etc. The varied pace of implementation by the district authorities and growth in commercial and private sector initiatives have also influenced the natural resource and socio-economic status of farmers substantively in the last decade. Besides, there has been significant change in the revenue boundaries due to bifurcation of several districts in the recent past. Increase in number of districts from 640 in 2011 to 720 in 2018, has influenced the dynamics of the district profile considerably.

Further, there has been a policy reorientation with reference to agriculture, whereby farmers' income and ecological sustainability have come to occupy a centre stage. On acceptance by Government the recommendation of the Group of Secretaries, 2015-16 to undertake comprehensive drought-proofing of 150 number of districts earlier delineated as vulnerable under NICRA study, there is now a revived interest in rainfed regions of the country.

It was therefore felt appropriate to revisit the 2012 Study, and re-prioritize the districts across the country and rank them. Hence, NRAA decided to constitute a Task Force to study and submit a report.

## 2.1. Constitution of Task Force

The National Rainfed Area Authority (NRAA), Department of Agriculture, Cooperation and Farmers Welfare (DAC&FW) constituted a Task Force vide its order No. 2-1/2017-NRAA, dated, 26th December, 2018 (Appendix-I). It was called “Revisiting Prioritization of Rainfed Areas”. The Terms of reference (ToR) assigned to the Task Force were as follows:

- To suggest clear definition of rainfed area with dimensions that are acceptable to different user agencies
- To finalise the Natural Resource Index (NRI) and Integrated Livelihood Index (ILI) parameters, and the process of aggregation of the two for Prioritization of rainfed districts
- To suggest a template for collection of data and maintenance of centralized database on rainfed agriculture for use by both central and state level agencies
- To suggest an institutional mechanism with consortium of national agencies to periodically generate dynamic information system for rainfed districts
- To reorder 150 districts identified as vulnerable, based on revisited RAPI and reorganization of districts; and to suggest 50 of these most critically drought prone districts for first phase drought -proofing interventions
- To study and suggest any other related issue as felt appropriate by the Task Force

## 2.2. Definitions

Some important definitions that are relevant to this report are offered hereunder:

**Rainfed areas:** are defined as areas primarily dependent on rainfall and undependable groundwater for agriculture and allied activities. And, the rainfed areas shall accordingly include,

- i. Rainfed cultivated area as the difference between Net Sown Area (NSA) and Net Irrigated Area (NIA)
- ii. Irrigated area with undependable groundwater
- iii. Permanent pastures and other grazing lands
- iv. Cultivable waste lands
- v. Current fallows
- vi. Other fallow lands

**Dryland Areas:** are defined as such rainfed areas receiving less than 750 mm of average annual rainfall, and further not more than 500 mm during the main growing season of the region.

**Livestock-centric rainfed areas:** are defined as such of those rainfed districts, wherein contribution of livestock to agricultural GVA is more than 50 per cent.

**Poverty-centric rainfed areas:** are defined as such of those rainfed districts, wherein the per capita income of the people is less than that of the national average.



## CHAPTER 03

# BUILDING A PRIORITIZATION INDEX

### 3.0 Prioritization Index

#### 3.1 Data and Methodology

The Task Force examined the utility of the 2012 RAPI as an index, and held it as a robust enough tool for Prioritizing the rainfed districts. The workshops held on evaluation of this index in the changed context agreed that while continuing with a similar approach and methodology as before, it required to be scrutinised and upgraded. Accordingly, the methodology was examined in detail with a view to bringing it at par with the changed situation, and meet the emerging thought with respect to the definition of rainfed areas. A more wholesome set of parameters were decided to be adopted to reflect the ground situation with respect to the status of both natural resources and livelihood. This resulted in inclusion of new parameters and exclusion of a few selected in the 2012 Study. As regards the weights to be assigned to different parameters, the same were derived by using the budget method, unlike the principal component analysis used in the previous assessment.

This Committee utilized the concept of a Composite Index (CI) for deployment in ranking the rainfed districts. This consists of two sub-indices, viz., Natural Resources Index (NRI) and Integrated Livelihood Index (ILI). Further, each of these two is a weighted aggregate of various natural resource and socio-economic related indicators, respectively.

This Study considered 670 districts (after excluding urban districts in various states- like Delhi, Mumbai, Kolkata, Chennai, Bengaluru, Hyderabad, Pune etc.; and some of the districts in north east region due to lack of available data). These districts account for more than 90 per cent of the country's population and area. As obvious when compared to 499 districts in 2012 Study, there is now a substantive increase in the total number of districts. The data in case of the newly formed districts through bifurcation/division was added to that of the 'original district' data, from which such new district was carved out. In cases, where data was not available for the new districts, the indicator of mother district was used for both new district and residual mother district. If a district was carved out from more than one district, values of the indicators in respect of the major mother district or the average of mother districts was considered. If data was missing for some districts of a state, then the average obtained from that of the remaining districts of the state was used as a proxy.

### 3.2 Selection of Indicators

As in the prioritization exercise (NRAA, 2012), this Study also chose to compute the ‘Composite Index (CI)’ similar to that of RAPI as a basis for prioritization. This aggregated index consists of two components, the NRI and the ILI, which constitute into a composite index of relevant indicators. Given the greater comprehensiveness of the parameters now being adopted, it was also decided that RAPI as a tool appropriate for Prioritization of rainfed districts can also be deployed as a generic tool, by considering it as a ‘Composite Index (CI)’ for delineation and prioritization of districts with a view to implementing various developmental & welfare programs of the governments at both central and state levels.

The details of the two component indices, as also that of the composite index are discussed in the following sections.

#### Natural Resource Index (NRI)

The status of natural resources is critical for sustenance of any biological activity like agriculture. It is important that different dimensions of natural resources are captured appropriately to determine its suitability to sustain a biologically driven production system. In case of rainfed system of agriculture, the state of natural resources, in the absence of dependable sources, production factors like irrigation becomes much more critical.

The parameters have accordingly been identified and included in construction of NRI. These are presented in Table 1 along with the details of the weights assigned, their units of measurement, relationship with the index and source of data. It may be noted that as many as 14 natural index parameters are selected in this Study, as against 9 in the previous Study.

**Table 1. Indicators included in the construction of Natural Resource Index (NRI)**

SI. No	Parameter	Weightage	Measured as	Relationship with NRI	Data source
1	Drought frequency (Met)	15	Percent of occurrence	N	Derived from IMD
2	Cultivated area under rainfed conditions	10	Ha	N	DACNET, DIP, NABARD, State Govt source
2a	Cultivated area under rainfed conditions	10	Percent	N	DACNET, DIP, NABARD, State Govt source
3	Rainfall	12	mm.	P	Derived from IMD
4	Status of ground water- groundwater development (utilization and replenishment)	5	Ratio	N	Derived from CGWB

SI. No	Parameter	Weightage	Measured as	Relationship with NRI	Data source
4a	Status of ground water (recharge from other sources to rainfall on annual scale)	5	Ratio	P	Derived from CGWB
5	Available water content of soil	10	mm	P	Global data set
6	Variability in NDVI	5	Number	N	MNCFC
7	Permanent pastures and other grazing lands	6	Ha	P	DACNET, DIP, NABARD, State Govt source
8	Cultivable waste lands	5	Ha	N	DACNET, DIP, NABARD, State Govt source
9	Current fallows and other fallow lands	5	Ha	N	DACNET, DIP, NABARD, State Govt source
10	Slope/ Topography	5	Percent	N	SRTM data, NRSC
11	Area under degraded and waste lands	4	Ha	N	Wasteland Atlas NRSC
12	Barren and uncultivable wasteland	3	Ha	N	DACNET, DIP, NABARD, State Govt source

P- Positive, N-Negative

### Integrated Livelihood Index (ILI)

The state of livelihood bears an impact on the way natural assets are utilised by a community. A healthy environment enhances the capacity of the community to impart efficiency and sustainability to use of resources. The Task Force, therefore, considered that the parameters relating to infrastructure, socio-economic development and health & sanitation facilities need to be taken into account in determining the rainfed district ranking. When these three baskets of livelihood parameters are in place, there is better scope in exercising favourable livelihood options.

The respective indicators that reflect these components are first identified to build these component indices, which are further combined to build Integrated Livelihood index (ILI). Component-wise indicators used in the Study, their relationship to livelihood index, weights assigned by experts and source of data are furnished in Table 2. It may be seen that as many as 18 parameters have been identified for analysis under the three sub-components together.

**Table 2. Component-wise indicators used, their relationship to Livelihood Index (LI), weights and source of data**

Component	Sl. No	Parameter	Measured as	Relationship to LI	Weight	Component Weight	Source of data
Socio-Economic	1	Small and marginal Farmers	Per cent to total farmers	N	11	65	Ag census 2010-11, DAC, GoI
	2	SC/ST population in rural areas	Per cent	N	6		GoI, Census-2011
	3	Workforce engaged in Agriculture	Per cent of total work force	N	9		GoI, Census -2011
	4	Rural population density	No./sq. km	N	5		GoI, Census -2011
	5	Literacy in rural areas	Per cent	P	5		GoI, Census -2011
	6	Number of villages having self-help groups	Per cent	P	4		GoI, Census -2011
	7	Livestock population	ACU/sq. km	P	10		Livestock Census- 2012
	8	Share of Agriculture in District Domestic Product	Percent	N	6		Planning Commission and RBI websites
	9	Per capita income	Rs.	P	4		Planning Commission and RBI websites
	10	Consumption of fertilizer nutrients (NPK)	kg/ha of GSA	P	5		For Fertiliser: FAI; For GSA: DES, DAC, GoI, Ag census 2010-11

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

<b>Component</b>	<b>Sl. No</b>	<b>Parameter</b>	<b>Measured as</b>	<b>Relationship to LI</b>	<b>Weight</b>	<b>Component Weight</b>	<b>Source of data</b>
Infrastructure	1	Number of veterinary centres	No./lakh ACU	P	5	25	Farmers' Portal, ( <a href="http://farmer.gov.in">http://farmer.gov.in</a> )
	2	Number of villages with primary school	Percent villages	P	3		GoI, Census-2011
	3	Number of villages with all-weather roads	Percent villages	P	4		GoI, Census-2011
	4	Regulated markets	No./Lakh holdings	P	7		For markets: Dir of Marketing & Inspection, DACFW; For holdings: Ag Census 2010-11
	5	Outstanding agricultural credit	Rs/ha of GSA	P	6		PLCP, NABARD
Health & Sanitation	1	Number of villages with primary health centre / primary health sub-centre	Per cent villages	P	3	10	GoI, Census -2011
	2	Number of households with drinking water facility of tap water from treated source	Percent households	P	3		GoI, Census -2011
	3	Households with good and liveable housing in rural areas	Percent households	P	4		GoI, Census -2011

*P-Positive; N-Negative; GSA-Gross Sown Area*

\* District-wise GDP, GDP from agriculture & allied sectors, and net per capita income for 2015-16 were estimated by extrapolating the data for 2005-06 using the State Growth Rate for the above parameters, for the period 2005-06 to 2015-16.

### 3.3 Processing of Data

#### Handling of extreme observations

Extreme observations in case of any indicator/parameter may lead to skewed distribution. Hence, adopting an upper cap using 99 percentile value, not only moderates the data but also ensures better discrimination in rest of the data. Extreme values in case of indicators relating to livestock density, rural population density, per capita income, consumption of fertilizer nutrients (NPK) per ha, number of veterinary centres per lakh ACU, and outstanding agricultural credit per ha. were handled by adopting this approach.

#### Normalization of indicators using Min-Max method

The indicators/parameters to be aggregated are measured in different units. It is, therefore, necessary to bring all the indicators to a common scale before aggregating them to build a composite index. Min-Max method is one such technique that rescales the data using range and is known as rescaling technique. If the individual indicator is positively associated with the index to be built, the normalized value of the indicator is computed as  $N = (X - \text{Min}) / (\text{Max} - \text{Min})$ , where  $X$  is original indicator value; Max is maximum of  $X$  values and Min is minimum of  $X$  values. It assigns zero (0) score to lowest indicator value (min), and one (1) to highest indicator value (max).

If an indicator is negatively associated with the index to be built, normalized value for the indicator is computed as  $N = (\text{Max} - X) / (\text{Max} - \text{Min})$ . The unit with highest indicator value gets zero (0) value in this case. The composite index built by aggregating the normalized values of various indicators using this method also carries similar interpretation. This method is preferred if the objective is to assess relative score of an entity, and not an absolute score.

The indicators used in the present Study were normalized using Min-Max method.

#### Construction of composite indices and Categorization of districts

The indices for NRI and for components of ILI were arrived at by summing the values of relevant normalized indicators multiplied by their respective weights. Further, the final ILI – an aggregate of three (3) components was then a summation of rescaled indices of these three, namely socio-economic, infrastructure, and health & sanitation with weights assigned respectively at 65, 25 and 10 per cent. The NRI and ILI were then rescaled to build Composite Index (CI). Finally, CI was constructed by assigning 2/3 (two-thirds) weight to NRI and 1/3 (one-thirds) weight to ILI using the following formula,

$$\text{CI} = [2/3(1-\text{NRI})] + [1/3(1-\text{ILI})]$$

#### Categorization of districts

Owing to the method of normalization (min - max) adopted in the present Study, the relative position of the districts with respect to the multi-dimensional abstract variable was delineated under all the three (3) indices, that is, CI, NRI and ILI.

Accordingly, all the 670 districts that formed part of the Study were ranked from 1 (one) to 670 under each of the three indices - NRI, ILI and CI. The criterion for ranking was the

score of the index value earned by each of the districts on each of the three. The approach was as follows:

A district with highest index value is given rank 1 (one), and the one with the lowest score is assigned rank 670. All other districts are ranked between these two extremes based on respective scores in decreasing order.

The districts in respect of CI were categorized into 4 priority groups viz., Very High, High, Medium and Low; all groups having equal number of districts. Two districts at margin were added to Very High and High priority groups.

In case of resource indices, namely, NRI and ILI, the groups identified were Very High, High, Medium and Low for both categories. Two districts at margin were added to Very high and High resource groups.

### 3.4 Results

The analysis computes the NRI, ILI and CI for all the 670 districts included in the Study. The national rankings of districts based on CI, NRI and ILI are presented vide Annexure – I. Further, to enable the states to deploy Prioritization tool in their planning and program implementation process, intra-State rankings with respect to CI, NRI and ILI are shown vide Annexure – II.

The details of the outcome of the analysis with reference to different indices used and corresponding parameters are discussed in the following sub-sections.

#### 3.4.1. Natural Resource Index (NRI)

Several relevant indicators/parameters were selected for scoring the districts in relation to the state of natural resources, and estimate the NRI. These parameters are discussed briefly below:

**Drought frequency:** Utilizing the grid data of rainfall (IMD dataset) for the period of 1986-2015, frequency of drought was computed for each grid following the criteria of IMD. Weighted average frequency of drought was derived for each district, and is shown in Fig. 2.1. It can be observed, that

- Moderate or severe droughts occurred for less than 20 per cent of the period in Eastern states; North Eastern states (except few districts); Madhya Pradesh; Coastal areas of Maharashtra, Karnataka and Kerala
- A few districts in Maharashtra, large number of districts in Gujarat, Rajasthan, and Haryana had deficit of rainfall for more than 30 percent of the years
- Many districts in Karnataka, Andhra Pradesh, Maharashtra and Indo-Gangetic Plains recorded deficit rainfall in 20-30 per cent of the years

**Net rainfed cultivated area:** It was derived as a difference between net sown area and net irrigated area. The States of Maharashtra, Gujarat, Rajasthan, and parts of Andhra Pradesh & Karnataka had an extent of more than 1,50,000

ha of rainfed area per district. Net rainfed area as percent to net cultivated area was also considered. Both indicators were given equal importance in computation of NRI. District-wise information on net rainfed cultivated area (ha) and percentage of net rainfed cultivated area are shown in Fig. 2.2.

**Annual rainfall (mm):** Utilizing IMD grid of rainfall dataset, annual rainfall was computed for each district based on weighted average method for the period of 1986-2015. The districts with an annual rainfall of more than 1500 mm have been put under one category, and districts with less than 500 mm have been grouped together as another for calculation of weightage. (Fig. 2.3).

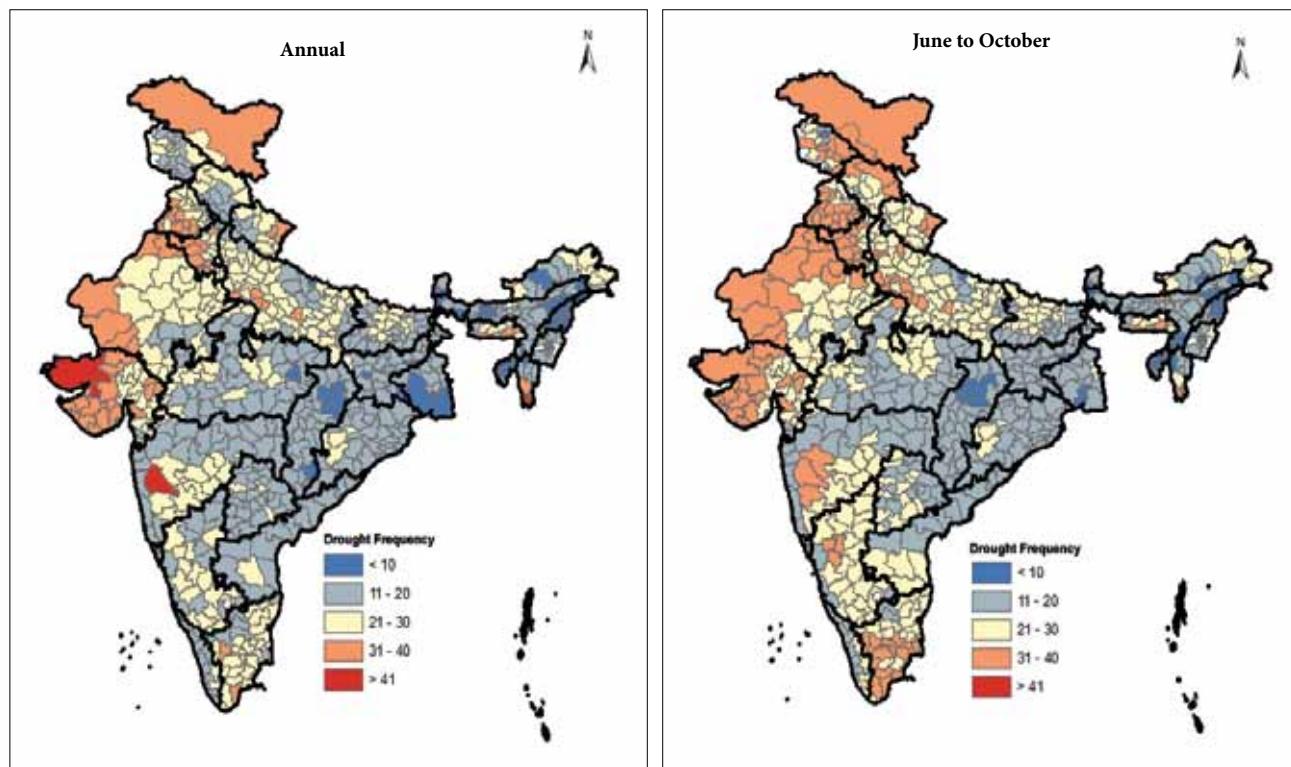


Fig. 2.1: Meteorological Drought Frequency

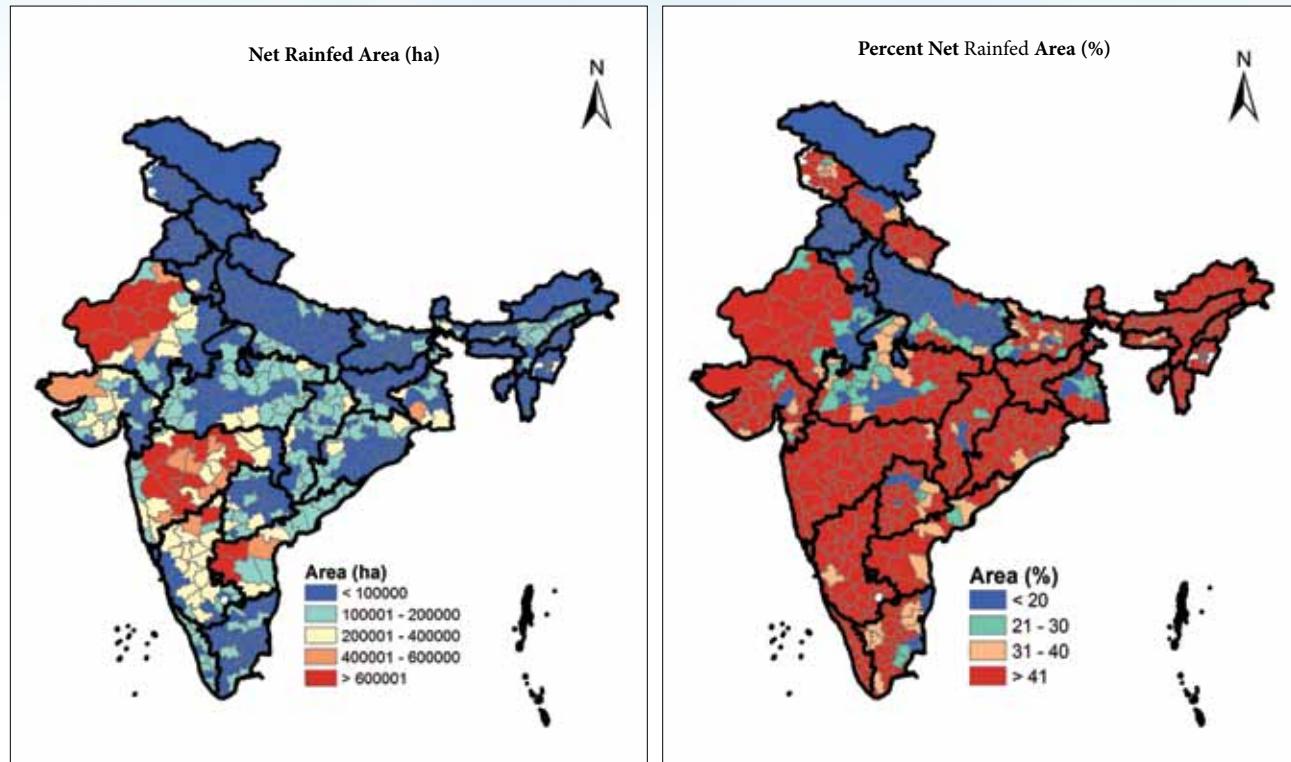


Fig. 2.2: Status of Rainfed Cultivated Area

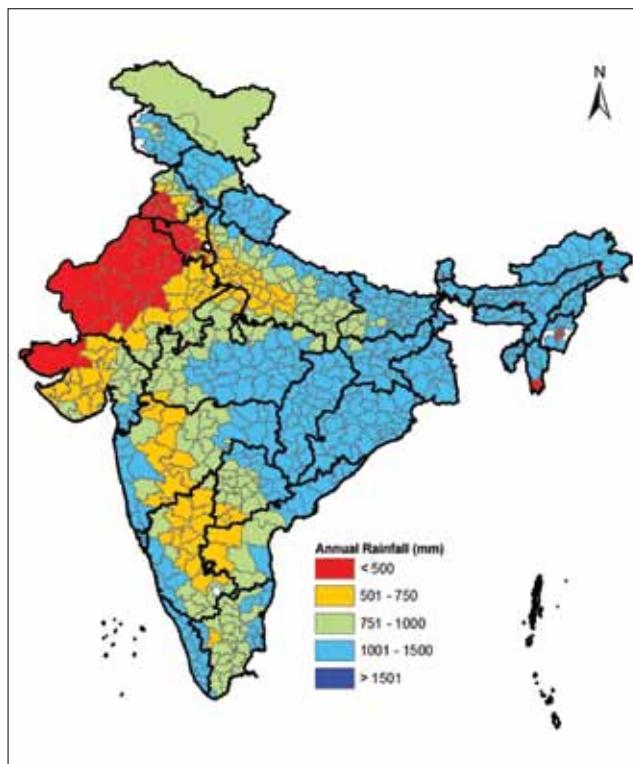


Fig. 2.3: Annual Rainfall (mm)

**Status of groundwater:** Two parameters were considered i.e., groundwater development and ratio of groundwater recharge from other sources to rainfall. Based on dynamic ground water resources estimate made by CGWB (2017), contribution to recharge from other resources to rainfall was worked out for each district. The stage of groundwater development i.e., ratio of available recharge to utilization was also considered. Both dimensions were given equal importance. The stage of ground water development and recharge from other sources to rainfall is shown in Fig. 2.4.

**Available Water Content (AWC):** Depth averaged available water content for each district was derived based on global dataset. Except for few districts in the country, in case of all others the status of available water capacity content was found to be less than 125 mm. Spatial distribution of AWC across districts is shown in Fig. 2.5.

**NDVI-Coefficient of Variation:** The Normalized Difference in Vegetation Index (NDVI) is an indicator considered as dependent parameter on rainfall, soils, elevation, drought etc., and is measured unbiased through remote sensing observations. Higher coefficient of vegetation at annual scale indicates greater impact of different parameters on production systems (Fig. 2.6).

**Permanent pastures and other grazing lands (ha):** The states covered by Indo- Gangetic plains, Kerala, North Eastern states, Saurashtra region of Gujarat, Southern districts of Tamil Nadu, and few districts in Rayalaseema region of Andhra Pradesh were seen to have less than 10,000 ha of permanent pastures and other grazing lands (Fig. 2.7). The land availability under this category can have impact on carrying capacity of land.

**Cultivable wastelands (ha):** Large number of districts in the country were found to be possessing less than 25,000 ha of cultivable waste lands. Distribution of cultivable wastelands is shown in Fig. 2.8.

**Current fallows and other fallows:** These categories of lands are important for livestock-based systems. Distribution across districts is shown in Fig. 2.9.

**Mean elevation:** Based on SRTM dataset provided by NRSC, mean elevation for each district was computed and is shown in Fig. 2.10. A higher mean elevation is considered to be more challenging if higher productivity is to be achieved under rainfed agriculture.

**Degraded wastelands:** Distribution of degrade wastelands derived from datasets of NRSC is presented in Fig. 2.11. Large number of districts in Rayalaseema of Andhra Pradesh, Maharashtra, and Rajasthan had degraded wastelands of more than 50,000 ha per district in extent.

**Barren and uncultivable lands (ha):** while land use statistics was considered, it was the absolute quantum of area considered for computation purpose, and not the percentage area within the district. Many districts in the country had less than 45,000 ha under barren and uncultivable criteria (Fig 2.12).

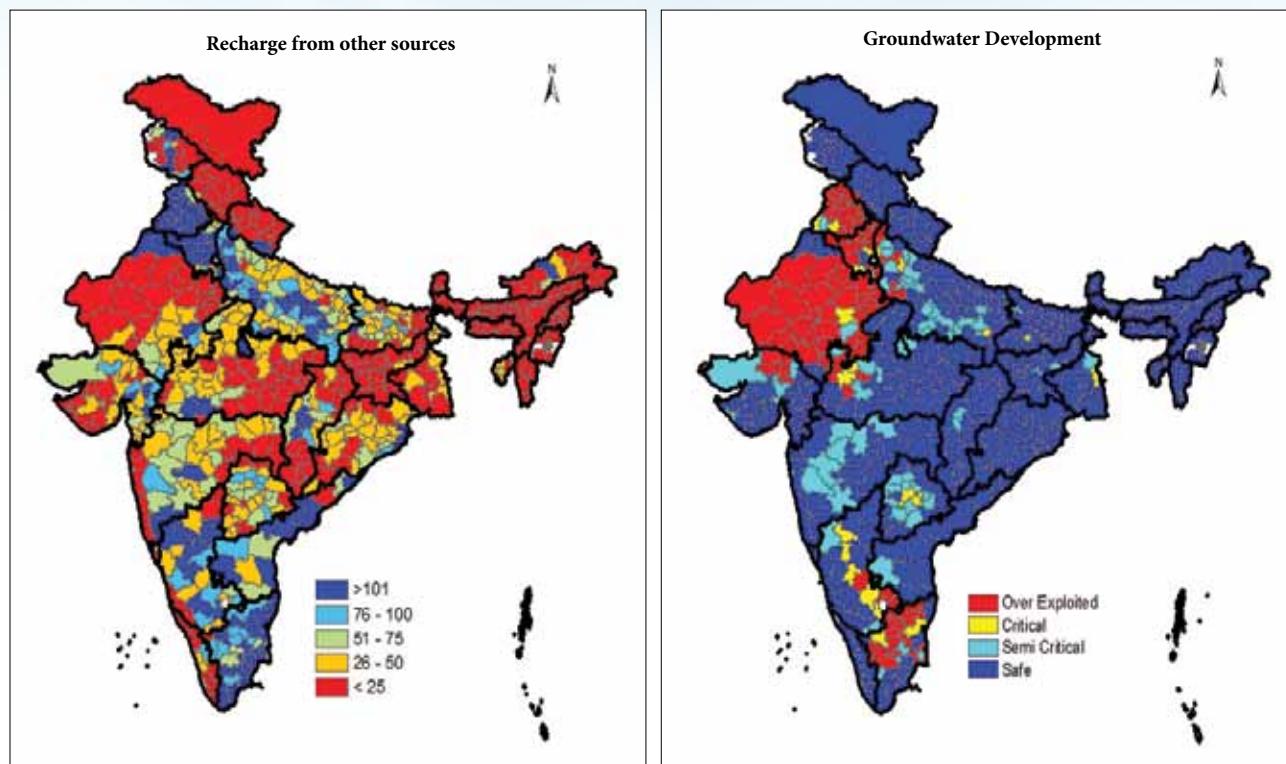


Fig. 2.4: Status of Groundwater

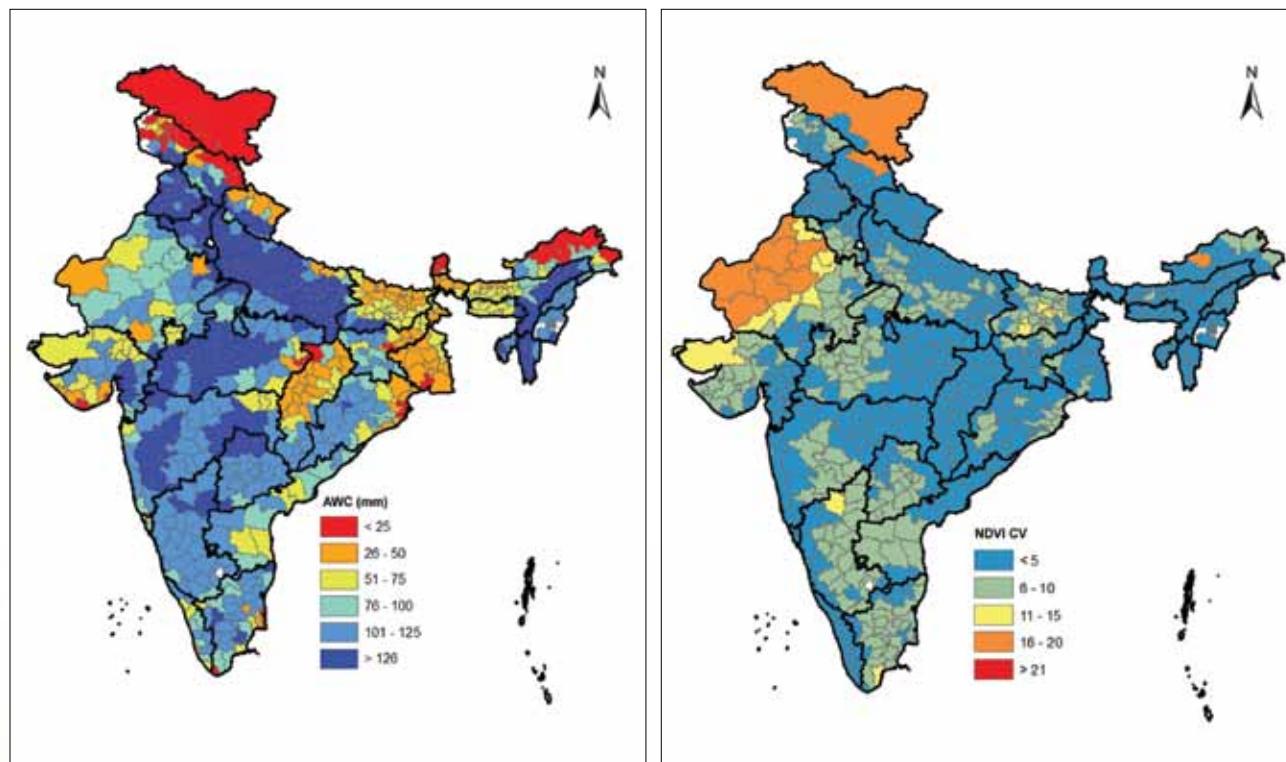


Fig. 2.5: Available Water Capacity

Fig. 2.6: NDVI - Coefficient Variation

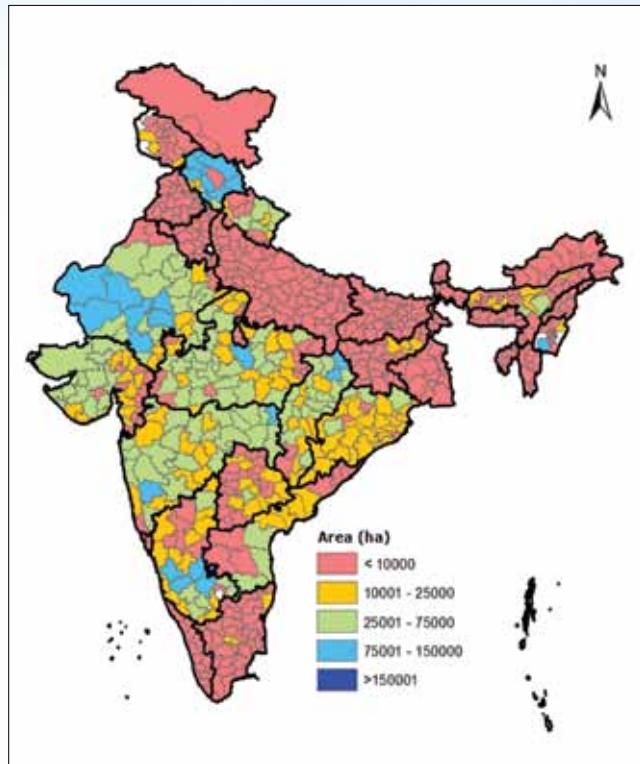


Fig. 2.7: Permanent Pasture and other Grazing Land (ha)

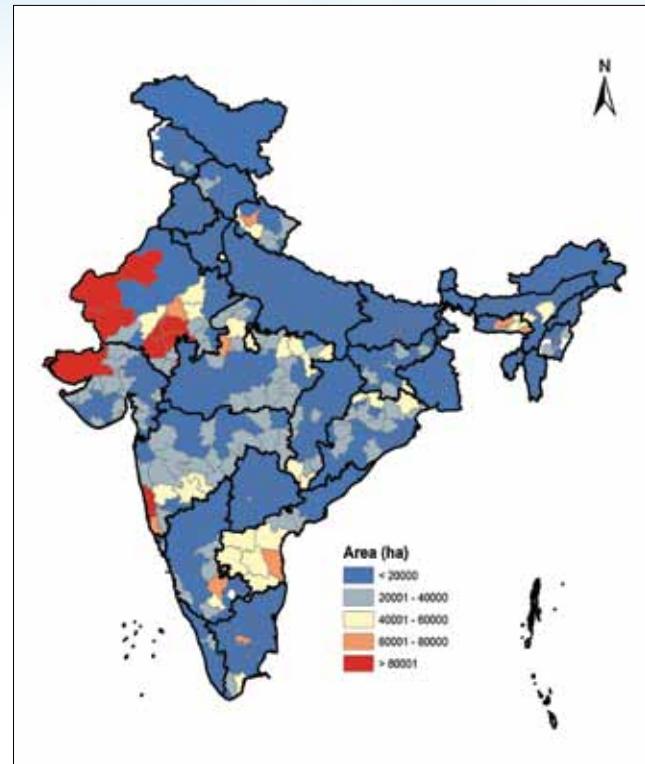


Fig. 2.8: Culturable Waste Land (ha)

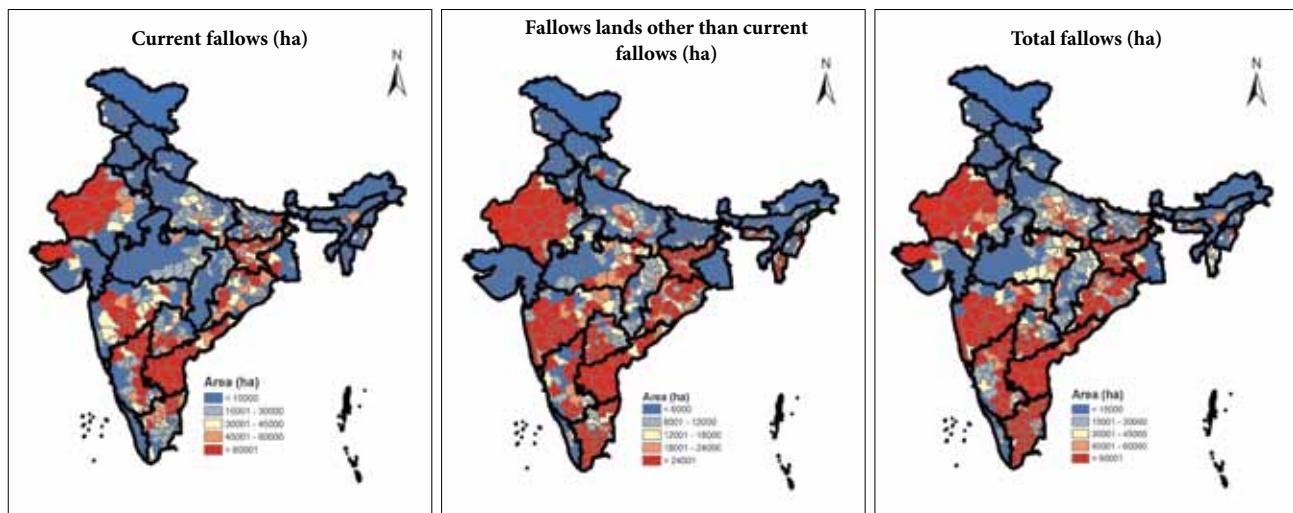


Fig. 2.9: Current fallow, fallow lands other than current fallows and total fallows

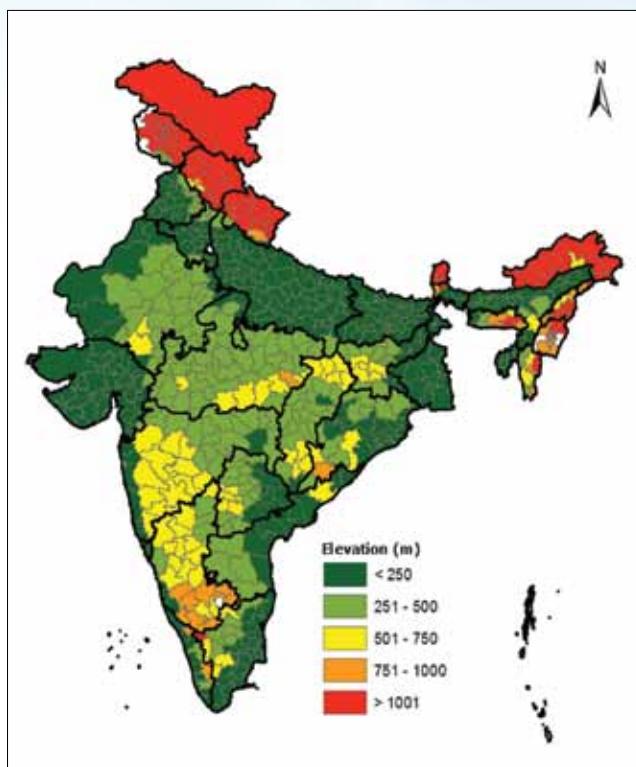


Fig. 2.10: Mean Elevation (m)

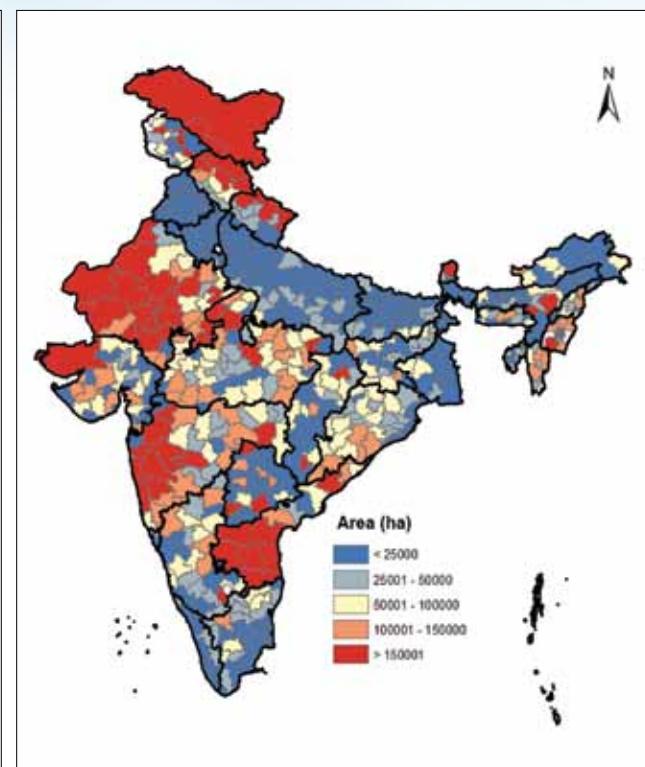


Fig. 2.11: Degraded land (ha)

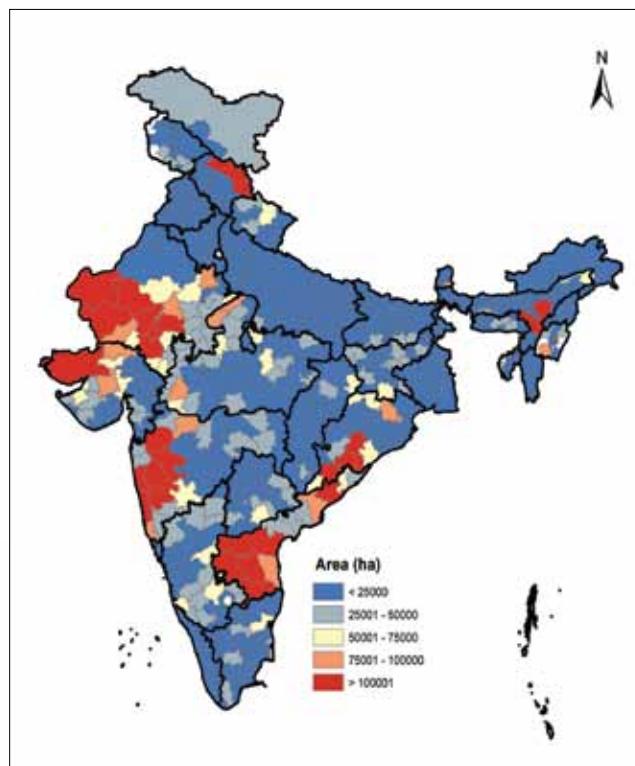


Fig. 2.12: Barren Land (ha)

**Natural resource index:** The NRI was computed by giving suitable weights (Table 3) for each parameter and following the procedure detailed in methodology section. All the districts were categorized into four (4) categories, i.e., very high, high, moderate, and low, with equal number of districts in each category. Distribution of districts under various categories is shown in Fig. 2.13. The state wise number of districts under various categories is given in Table 3 and spread of priority districts based on NRI are shown in Fig. 2.14.

**Table 3: Categorization of districts based on NRI Priority**

State	Categorization of districts based on priority of NRI				
	Very High	High	Medium	Low	Grand Total
Andhra Pradesh	7	2	4		13
Arunachal Pradesh	4	2	9	3	18
Assam		11	12	4	27
Bihar	1	19	15	3	38
Chhattisgarh	5	15	5	2	27
Goa			2		2
Gujarat	18	5	6	4	33
Haryana	3	2	8	8	21
Himachal Pradesh	3	2	3	4	12
Jammu & Kashmir including Ladakh (UT)	11	6	2	3	22
Jharkhand	9	13	2		24
Karnataka	21	2	3	3	29
Kerala			6	7	14
Madhya Pradesh	6	18	16	11	51
Maharashtra	23	7	1	3	34
Manipur			3	6	9
Meghalaya			4	4	11
Mizoram	2		3	3	8
Nagaland				4	7
Odisha	3	11	13	3	30
Punjab				3	19
Rajasthan	22	8	3		33

State	Categorization of districts based on priority of NRI				
	Very High	High	Medium	Low	Grand Total
Sikkim	2	2			4
Tamil Nadu	14	7	6	4	31
Telangana	8	7	9	6	30
Tripura				8	8
Uttar Pradesh		8	14	53	75
Uttarakhand	4	3	1	5	13
West Bengal	2	5	6	7	20
<b>Grand Total</b>	<b>168</b>	<b>168</b>	<b>167</b>	<b>167</b>	<b>670</b>

### 3.4.2. Integrated Livelihood Index

As already explained earlier, the ILI scores for all the 670 districts were worked out on three broad components livelihood-based parameters. The parameters under each of these three are discussed in brief in the following sub-sections. The status of districts in India with respect to these parameters is also discussed.

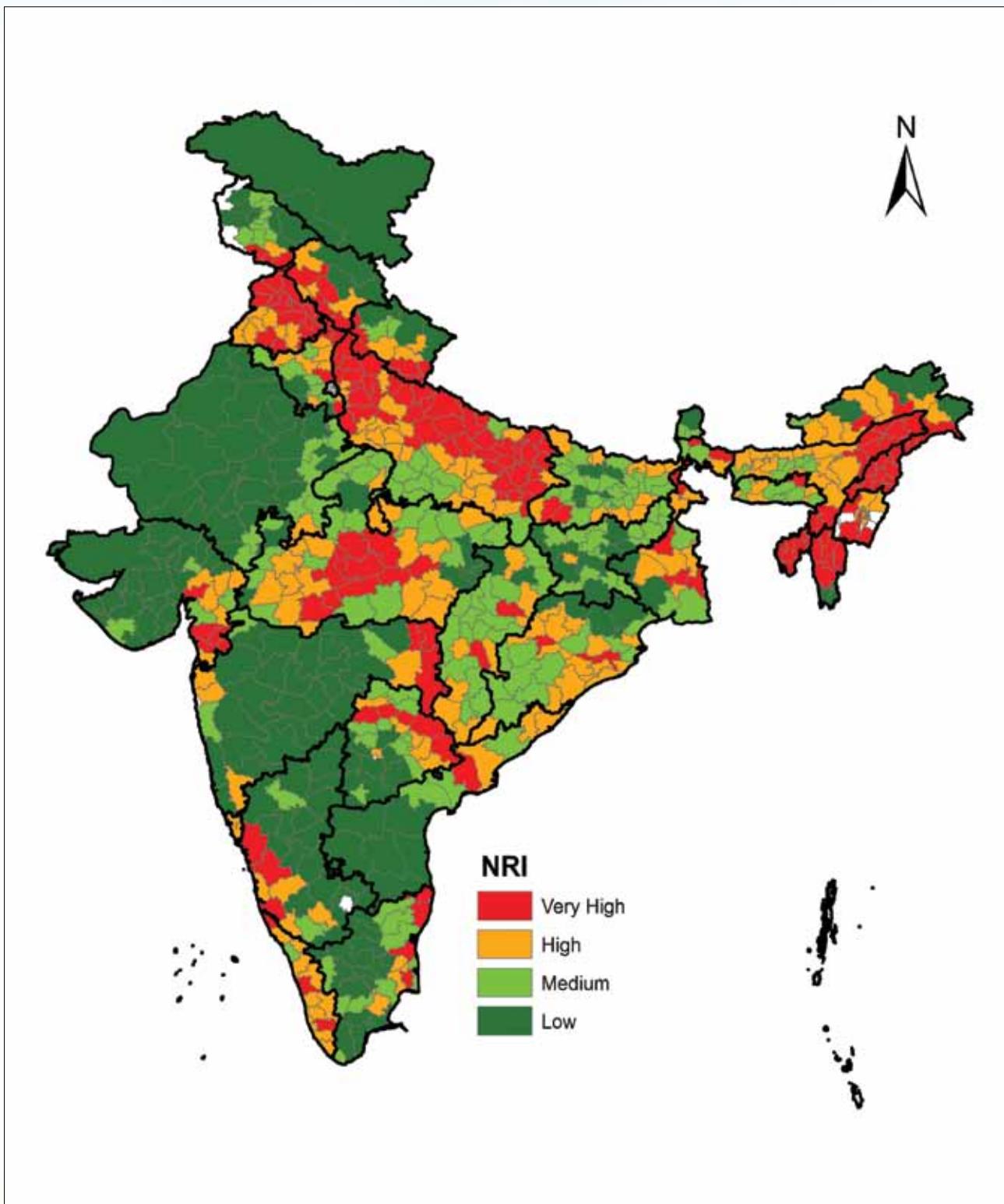


Fig. 2.13: Status of Natural Resource Index

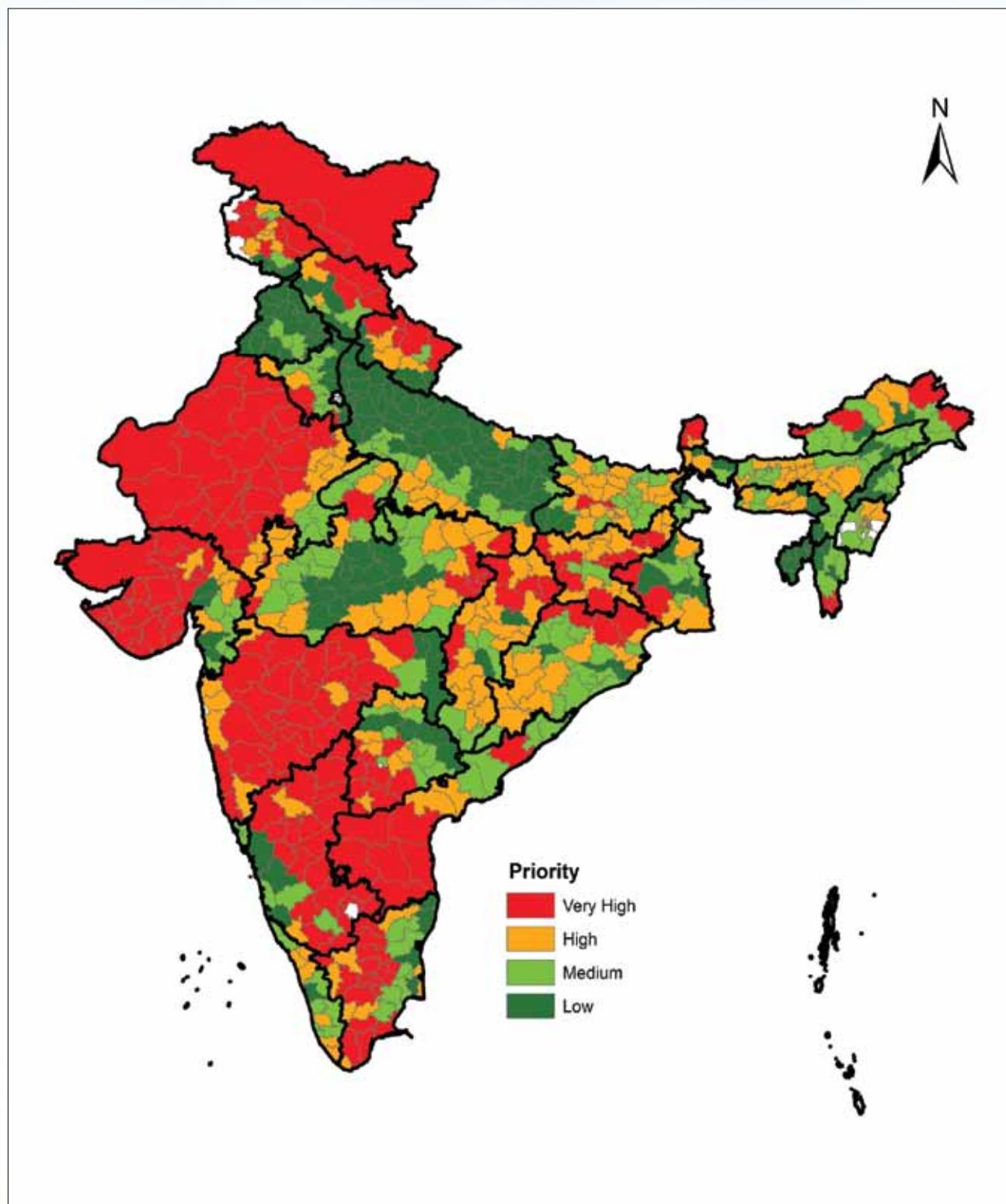


Fig. 2.14: Priority districts based on Natural Resource Index

### 3.4.2.1. Socio-economic indicators

**Small and marginal farmers:** Smaller size of farms limits volumes of production and ratios of marketable surplus, as also the capacity of these farmers to cope with risk. Proportion of small and marginal farmers to total farmers is more than 0.8 in Bihar, Odisha, West Bengal, Assam, Uttar Pradesh, Uttarakhand and Tamil Nadu. The proportion is less than 0.4 in majority of the districts of Punjab, Arunachal Pradesh and Nagaland (Fig. 2.15).

**SC/ST population:** This community in addition to being relatively poor, is also less educated and poorly integrated with main-stream economy. Concentration of SC/ST population is more in north-eastern states, Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh and the union territory of Ladakh (Fig. 2.16).

**Rural work-force engaged in agriculture:** It indicates a relatively higher importance of agriculture in the livelihood pattern of population compared to other sectors (industry & service). Gross value added by work force dependent on agriculture is relatively low compared to other sectors. More than 80 per cent of rural work force is engaged in agriculture in Chhattisgarh, majority districts of Madhya Pradesh, Maharashtra and Mizoram. The work force engaged in agriculture is low in Kerala (Fig. 2.17).

**Rural population density:** It implies high population pressure on land resources, and high dependence of the rural population on agriculture. The density is more in Bihar and Eastern Uttar Pradesh followed by West Bengal and Kerala (Fig. 2.18).

**Literacy in rural areas:** Higher literacy enables people to adapt better to the dynamics of the society, and it also enhances their ability to diversify livelihoods portfolios. Rural literacy is very low in bordering districts of Chhattisgarh, Odisha and Andhra Pradesh. Others with low rate of literacy are Bihar, Rajasthan, Arunachal Pradesh, Telangana, Jharkhand & Madhya Pradesh, and the union territory of Jammu & Kashmir (Fig. 2.19).

**Villages with Self-Help Groups (SHGs):** Mobilisation of farmers and other village inhabitants into FPOs, SHGs etc. enhances their ability to manage both farm level inputs & outputs more efficiently, and manage risks more effectively. It is a kind of social capital. The number of SHGs is higher in the villages of the districts of Telangana, Andhra Pradesh, Kerala, Tamil Nadu, West Bengal, Gujarat and Haryana have SHGs. Their numbers are very low in the districts of Rajasthan, Punjab, Jammu & Kashmir UT, Bihar, Jharkhand, Uttarakhand, Himachal Pradesh and Arunachal Pradesh (Fig. 2.20).

**Livestock density:** It is an indicator of diversification of agriculture and livelihood options, and hence depicts the ability of the people to cope with adversities. The livestock density is more in Uttar Pradesh, Bihar, West Bengal and Gujarat (Fig. 2.21).

**Share of agriculture in District Domestic Product (DDP):** Higher share of agriculture indicates relatively less developed secondary and tertiary sectors in the district. The economy in the States such as Madhya Pradesh, Uttar Pradesh, Bihar, Andhra Pradesh, Assam, Arunachal Pradesh and Manipur is relatively more dependent on agriculture (Fig. 2.22).

**Per Capita Income (PCI):** A higher per capita income implies better adaptive capacity. PCI is relatively more in Gujarat, Punjab, Haryana, Himachal Pradesh, Nagaland, Tripura, Kerala and Tamil Nadu, while it is low in Bihar and Uttar Pradesh (Fig. 2.23).

**Consumption of fertilizer nutrients:** The rate of fertilizer consumption is considered as a proxy for the level of technology. Higher use of fertilizers indicates adoption of improved technologies. The consumption of fertilizers is more in Andhra Pradesh, Punjab, Haryana, Tamil Nadu, Uttar Pradesh, Bihar, Gujarat and Telangana (Fig. 2.24).

The above ten indicators in combination and based on the weights specified in Table 2 resulted into the socio-economic index shown in Fig 2.25. The scores demonstrate that the socio-economic status is weak in the States viz., Madhya Pradesh, Chhattisgarh, Odisha, Bihar, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Eastern Rajasthan, Meghalaya, Mizoram, Arunachal Pradesh and Manipur; and it is robust in Punjab, Haryana, Gujarat and Kerala.

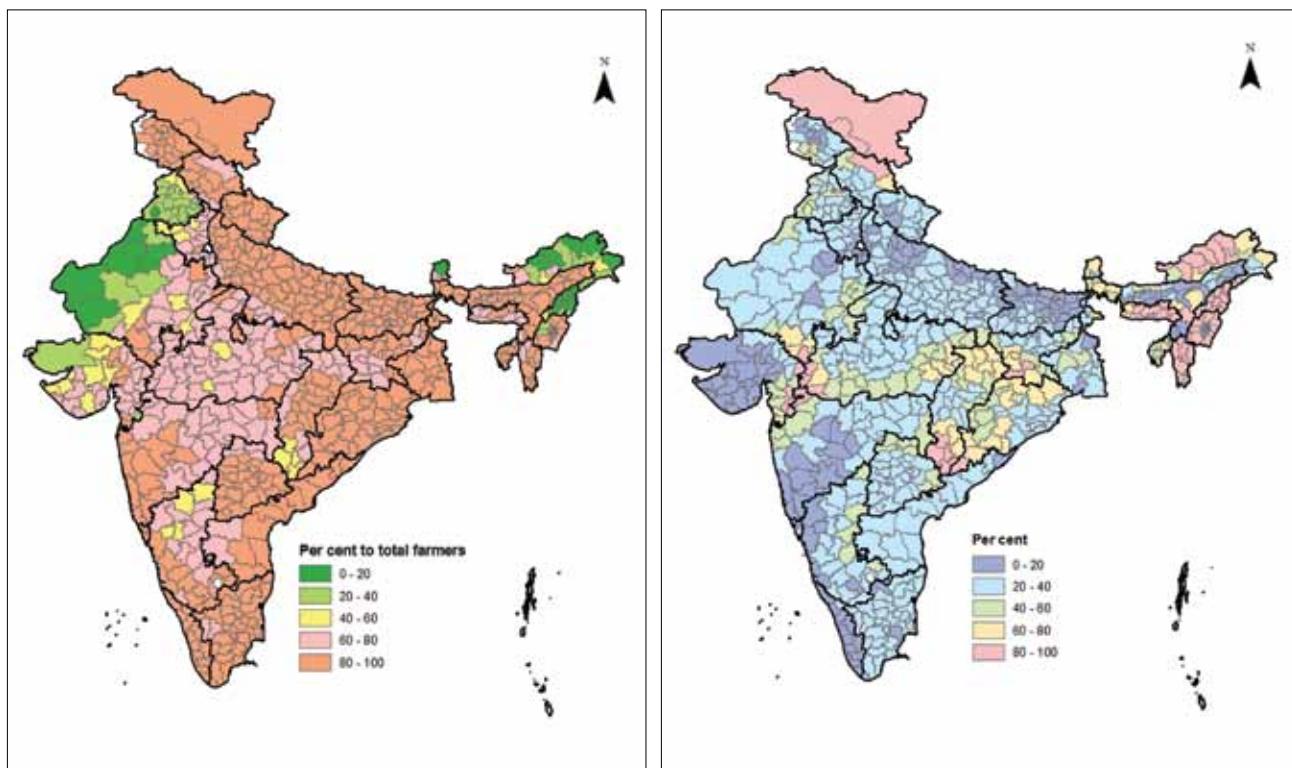


Fig. 2.15: Small and Marginal Farmers

Fig. 2.16: SC/ST Population in Rural Areas

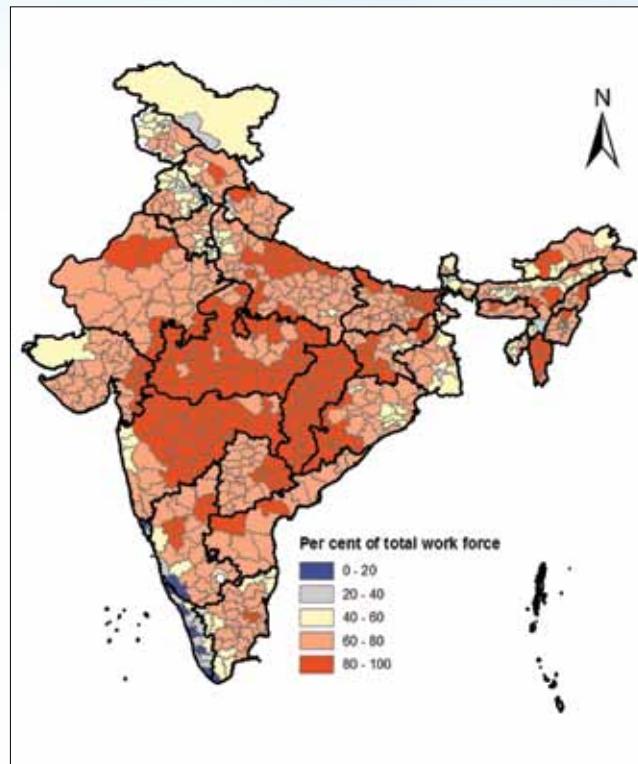


Fig. 2.17: Rural Workforce Engaged in Agriculture

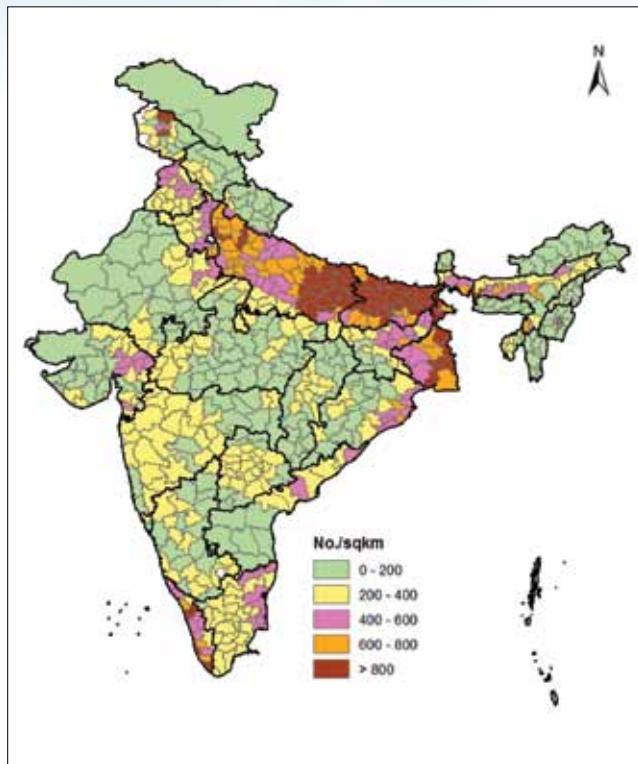


Fig. 2.18: Rural Population Density

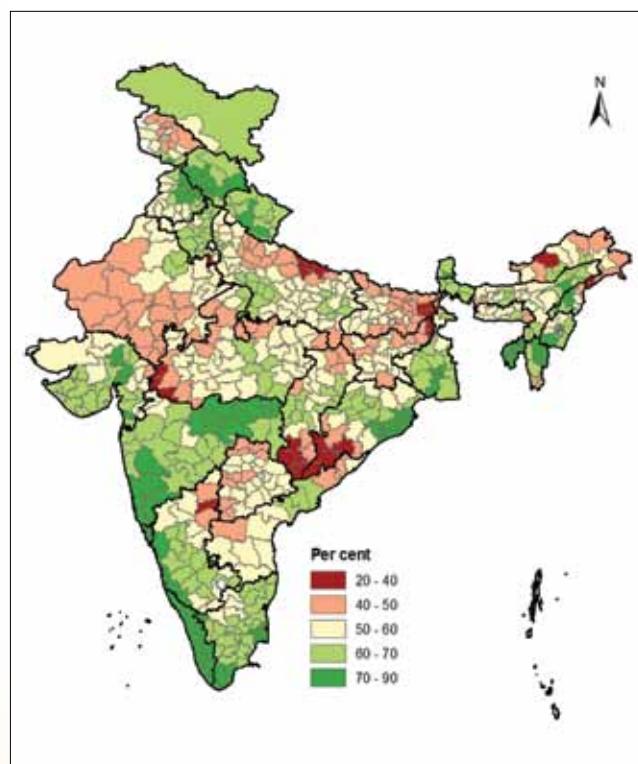


Fig. 2.19: Literacy in Rural Areas

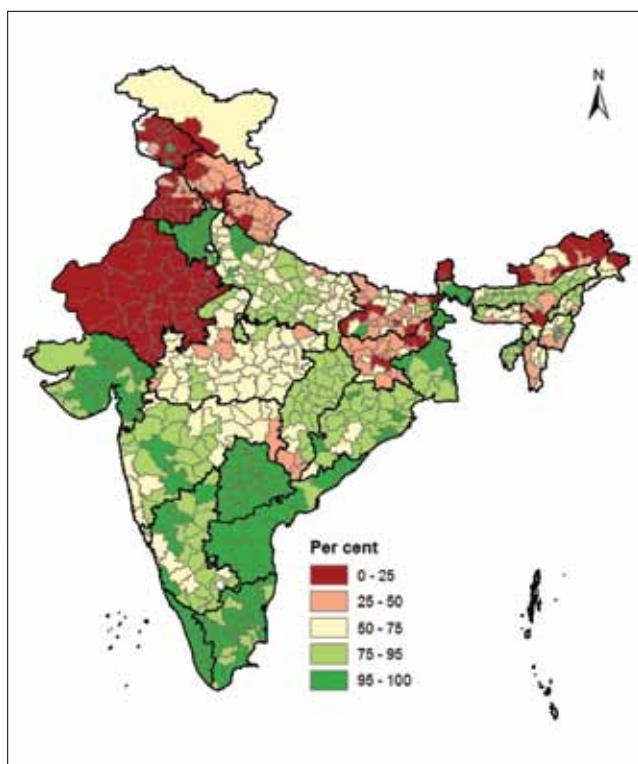
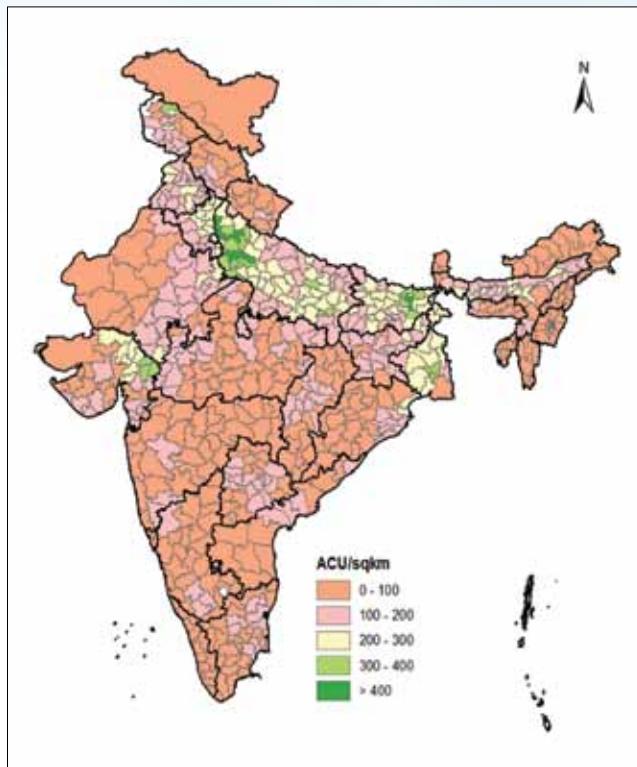
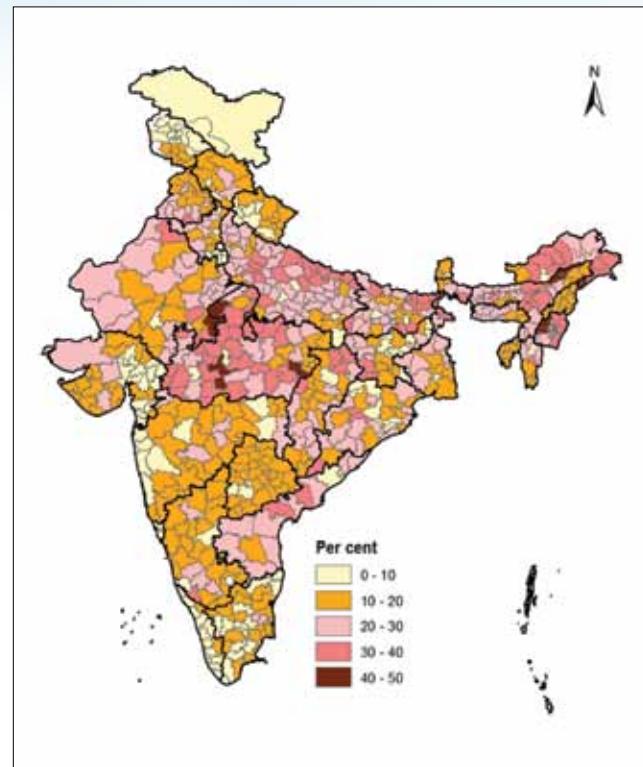


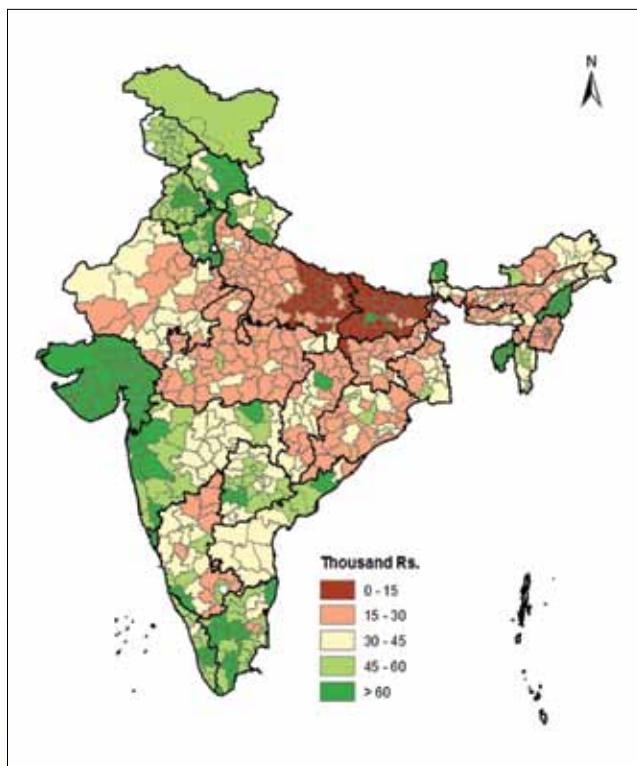
Fig. 2.20: Number of Villages Having Self Help Groups



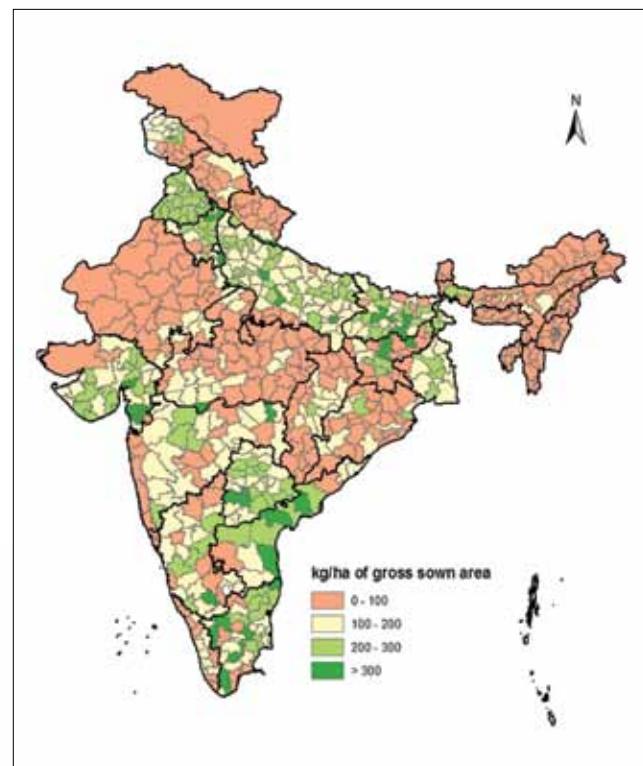
**Fig. 2.21:** Livestock Population



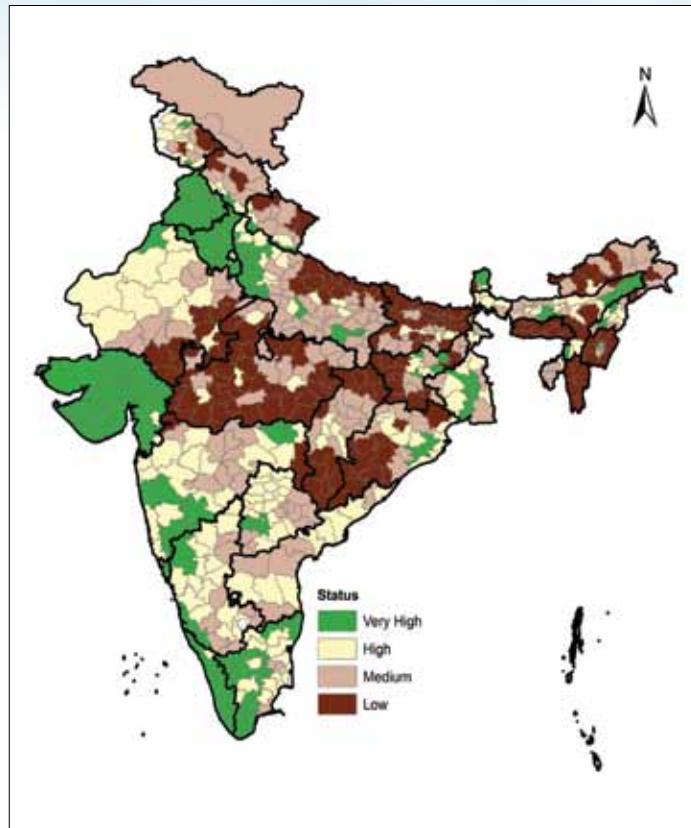
**Fig. 2.22:** Share of Agriculture in District Domestic Product



**Fig. 2.23:** Per Capita Income



**Fig. 2.24:** Consumption of Fertilizer Nutrients (NPK)



**Fig. 2.25:** Socio-Economic Status

### 3.4.2.2. Infrastructure indicators

**Veterinary centres per lakh ACU of livestock:** Farmers do need support to take care of health of their livestock. Sufficient number of Veterinary Centres in proportion to the livestock population (measured as adult cattle units-ACU) in the district will ensure better animal health care and higher income from livestock sector. The ratio of Veterinary Centres in proportion to livestock population (measured in ACU) is very poor in Rajasthan, Gujarat, Chhattisgarh, Eastern Uttar Pradesh, Madhya Pradesh and Jharkhand (Fig. 2.26).

**Villages with primary schools:** It is an indicator of access to primary education in the district. The villages without primary school are more in Arunachal Pradesh, Himachal Pradesh, Uttarakhand, Rajasthan, Uttar Pradesh and Odisha (Fig. 2.27).

**Rural road connectivity:** A good road connectivity ensures easier access to various services, and impacts positively on the rural economy. Villages that do not possess all weather roads are more in the districts of Rajasthan, Arunachal Pradesh, Meghalaya, Mizoram, Himachal Pradesh and Uttarakhand (Fig. 2.28).

**Access to regulated markets:** This is an indicator of access to agricultural markets for realising fair and remunerative returns on the farmers' produce, as well as a reflection of the state of integration with the economy, and the associated spread effects of development. Number of regulated markets per lakh holdings is low in Andhra Pradesh, Kerala, Telangana,

Rajasthan, Uttarakhand, the UTs of Jammu & Kashmir and Ladakh, Karnataka, Uttar Pradesh, Bihar and north-east region to the exception of Assam and Tripura (Fig. 2.29).

**Outstanding institutional agricultural credit:** It is the outstanding institutional credit per ha of gross sown area. Higher value indicates less share of non-institutional credit from local money lenders etc., and therefore symbolic of a positive input environment for the farmers. Credit per hectare of gross sown area is higher in Tamil Nadu, Kerala, Andhra Pradesh, Karnataka, Himachal Pradesh, Punjab and Haryana, and low in Maharashtra and north-east region (Fig. 2.30).

The above five indicators combined with the respective weights assigned in Table 2, reveal the infrastructure status in the districts of India (Fig. 2.31). The scores show that the status of infrastructure is poor in Rajasthan, Uttarakhand, Western Uttar Pradesh and north-east region excluding Tripura.

### 3.4.2.3. Health and sanitation indicators

**Villages with Primary Health Centre (PHC) / Primary Health Sub-centre (PHS):** It is an indicator of access to public health care system. There are many villages in the districts of Uttar Pradesh, Himachal Pradesh, Uttarakhand and north-east region that do not have access to PHC/PHS facility (Fig. 2.32).

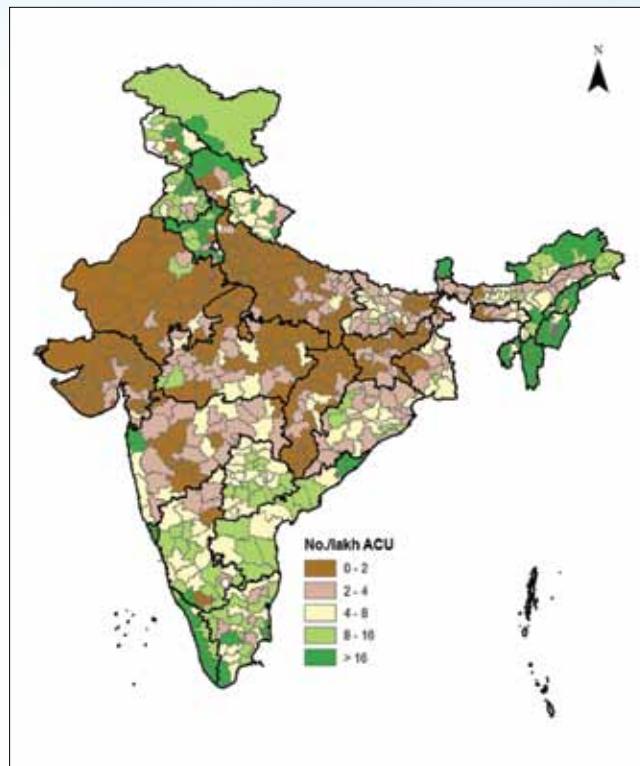
**Drinking water from treated source:** It is an indicator of access to safe drinking water. The access of households to drinking water from treated source is poor in Bihar, Jharkhand, Chhattisgarh, Odisha, Madhya Pradesh, Assam and Ladakh UT (Fig. 2.33).

**Good and liveable housing:** It is an indicator of access to good and liveable housing facilities. Housing in India is reasonably good and liveable. It is relatively poor in West Bengal and Assam (Fig. 2.34).

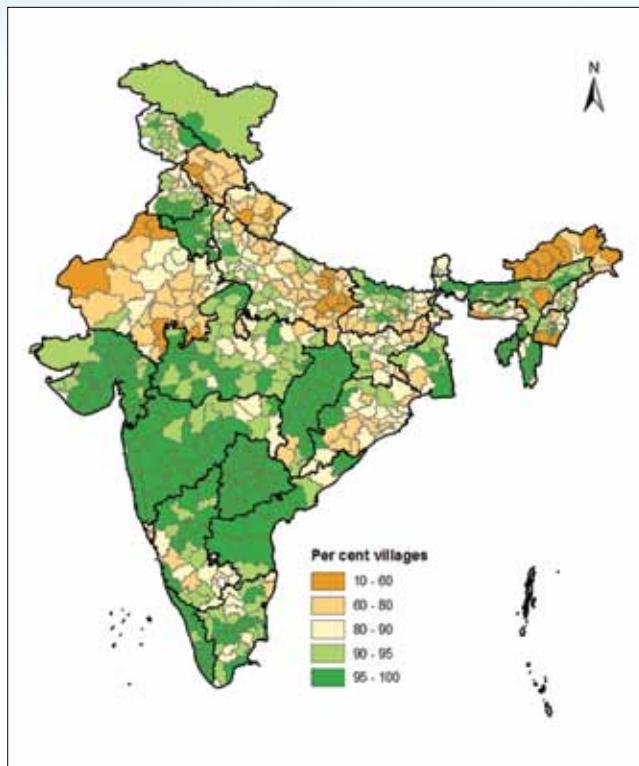
The overall status of health and sanitation in India is shown in Fig. 2.35. It is seen that the status is relatively poor in Uttar Pradesh, Bihar, West Bengal, Odisha and Assam.

### Integrated Livelihood status in the districts of India

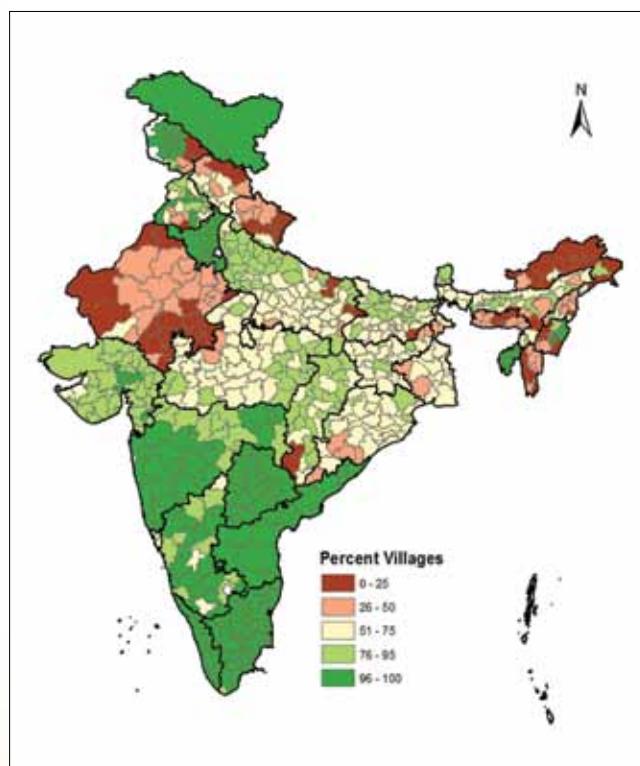
The respective scores in respect of the three components, namely, socio-economic, infrastructure and health & sanitation indices are combined into one by apportioning a weightage of 65, 25 and 10 per cent respectively to build the Integrated Livelihood Index (Fig. 2.36). As seen from the score, the livelihood status is better in Punjab, Haryana, Gujarat, Kerala and Tamil Nadu; it is poor in Eastern Rajasthan, Madhya Pradesh, Odisha, Chhattisgarh, Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Meghalaya, Arunachal Pradesh and Mizoram. Categorization of districts into very high, high, medium and low, based on Integrated Livelihood Index Priority is given at table 4 and their spread across India is shown in Fig 2.37.



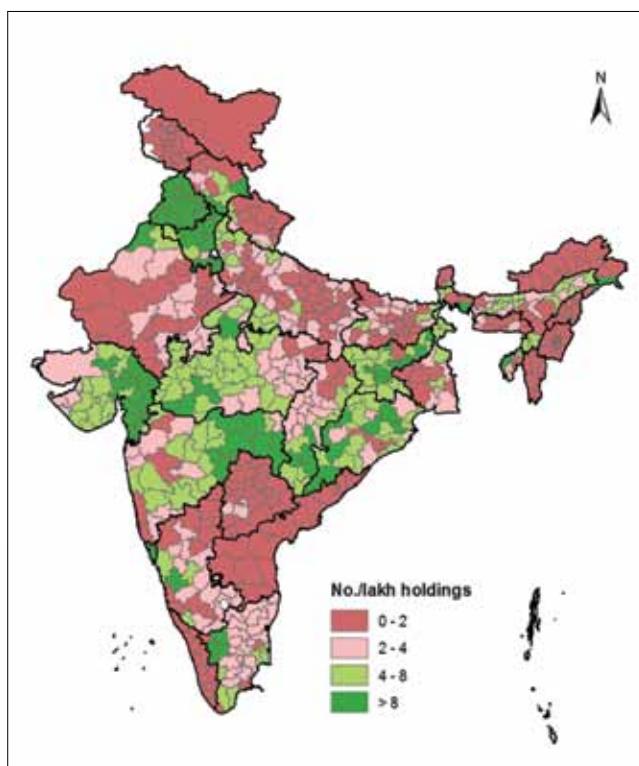
**Fig. 2.26:** Number of veterinary Centres



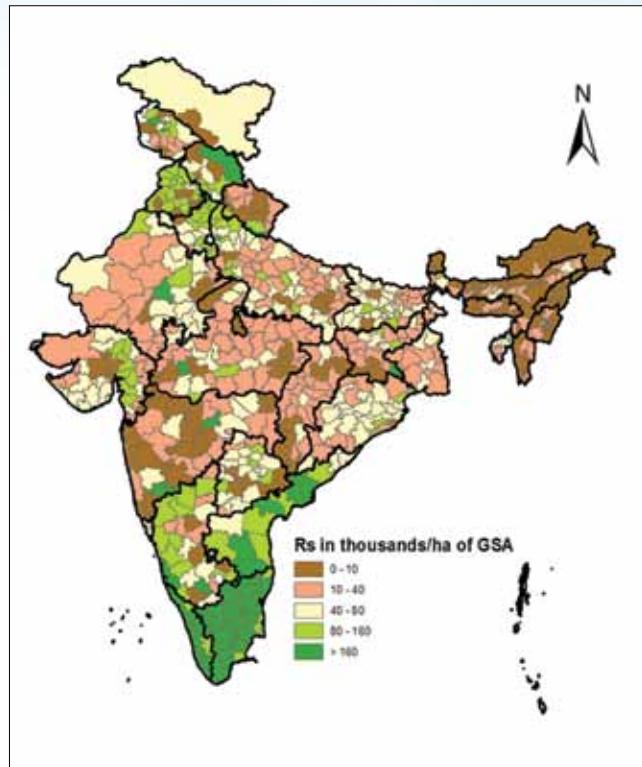
**Fig. 2.27:** Number of Villages with Primary School



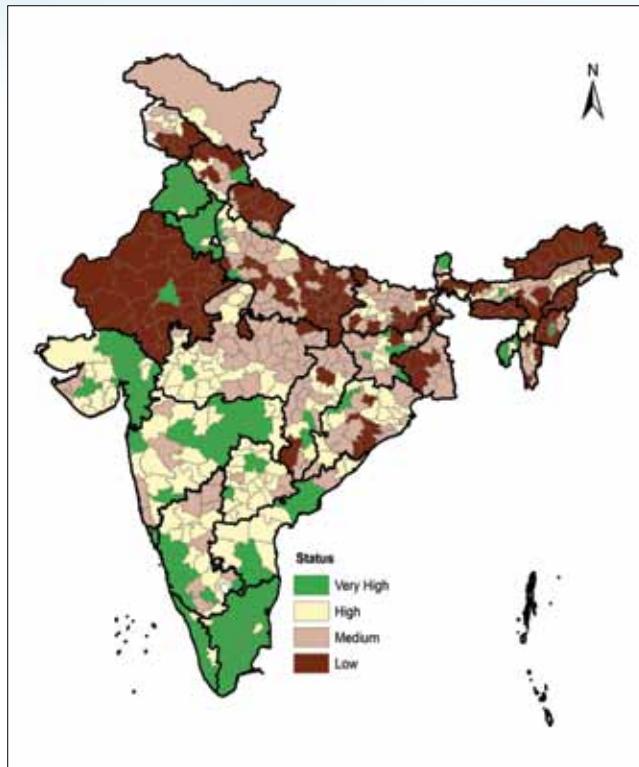
**Fig. 2.28:** Number of Villages with All Weather Road



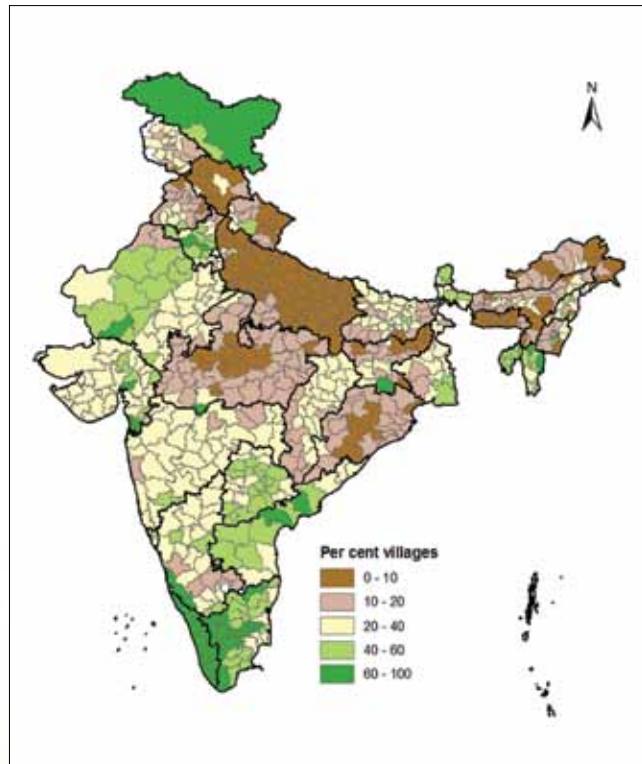
**Fig. 2.29:** Accessibility to Regulated Markets



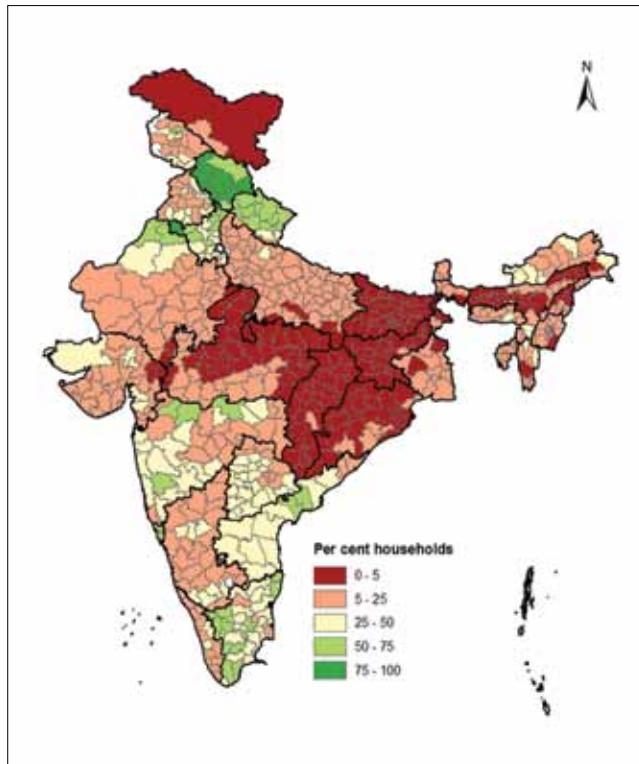
**Fig. 2.30:** Outstanding Agricultural Credit



**Fig. 2.31:** Status of Infrastructure



**Fig. 2.32:** Number of Villages with Primary health Centre / Primary Health Sub-Centre



**Fig. 2.33:** Number of Households with Drinking Water Facility of Tap Water from Treated Source

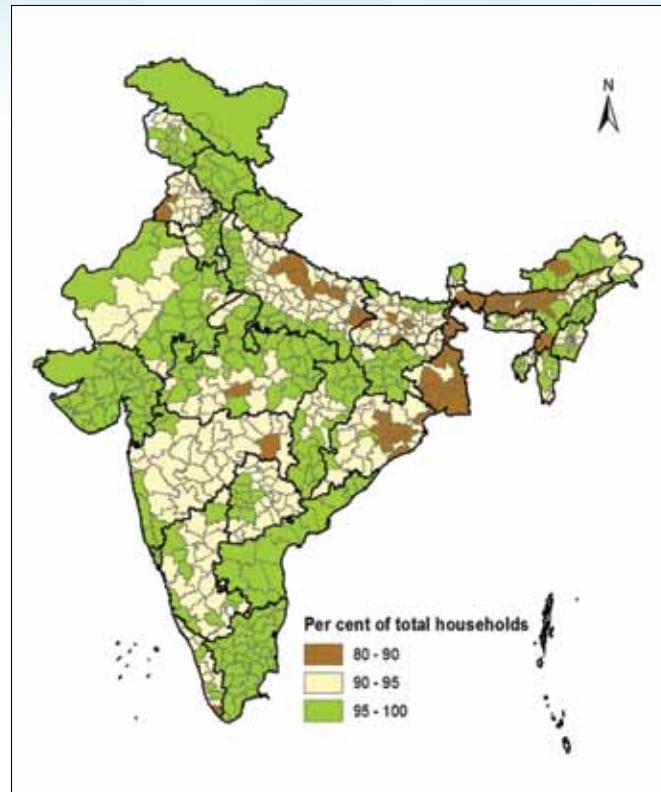


Fig. 2.34: Households with Good and Livable Housing in Rural Areas

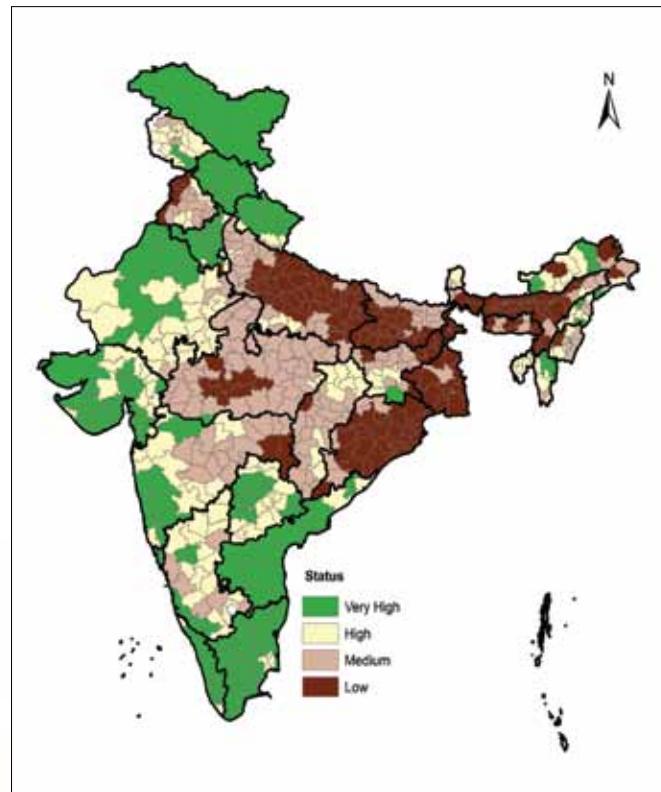


Fig. 2.35: Status of Health and Sanitation

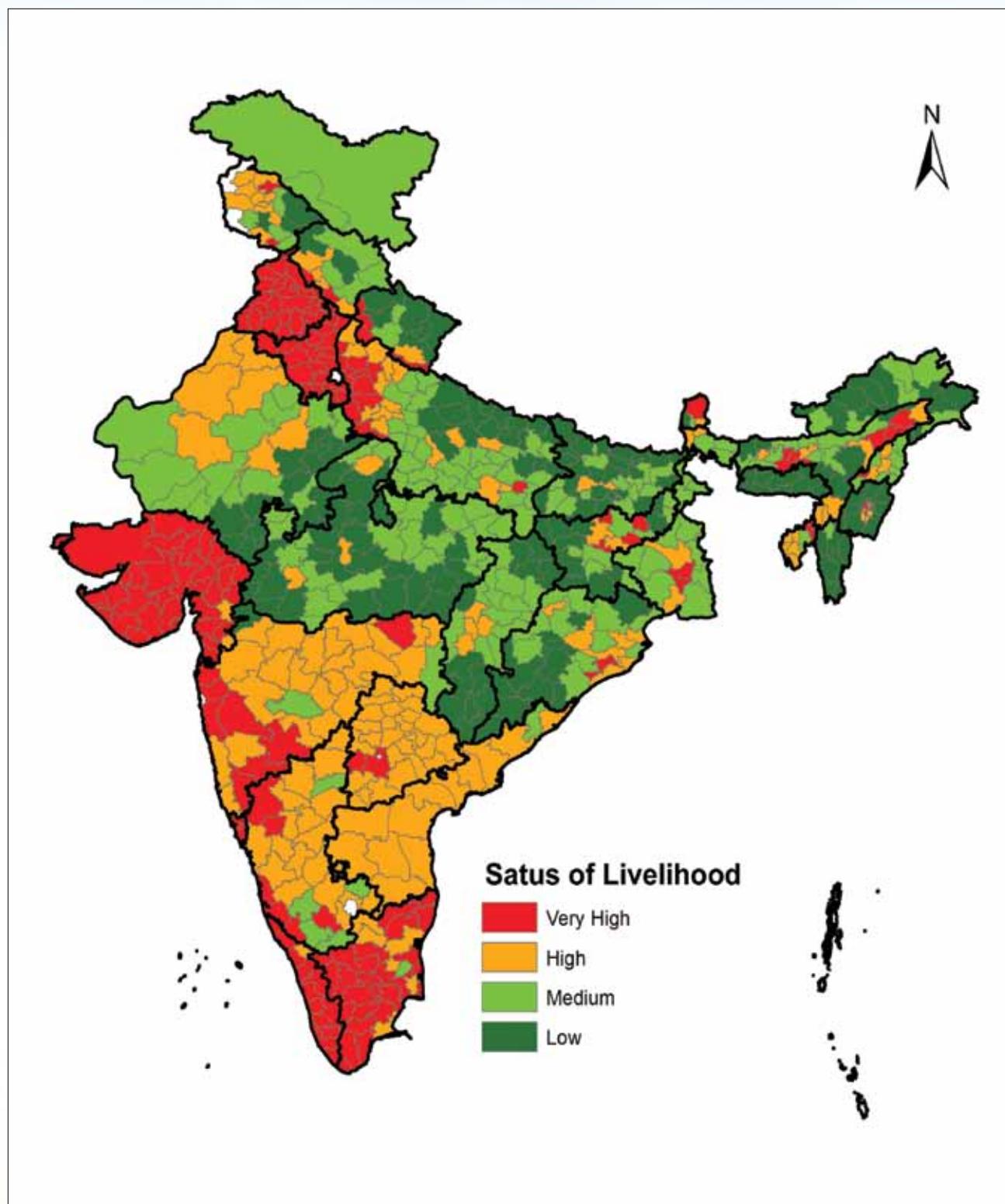


Fig. 2.36: Status of Livelihood

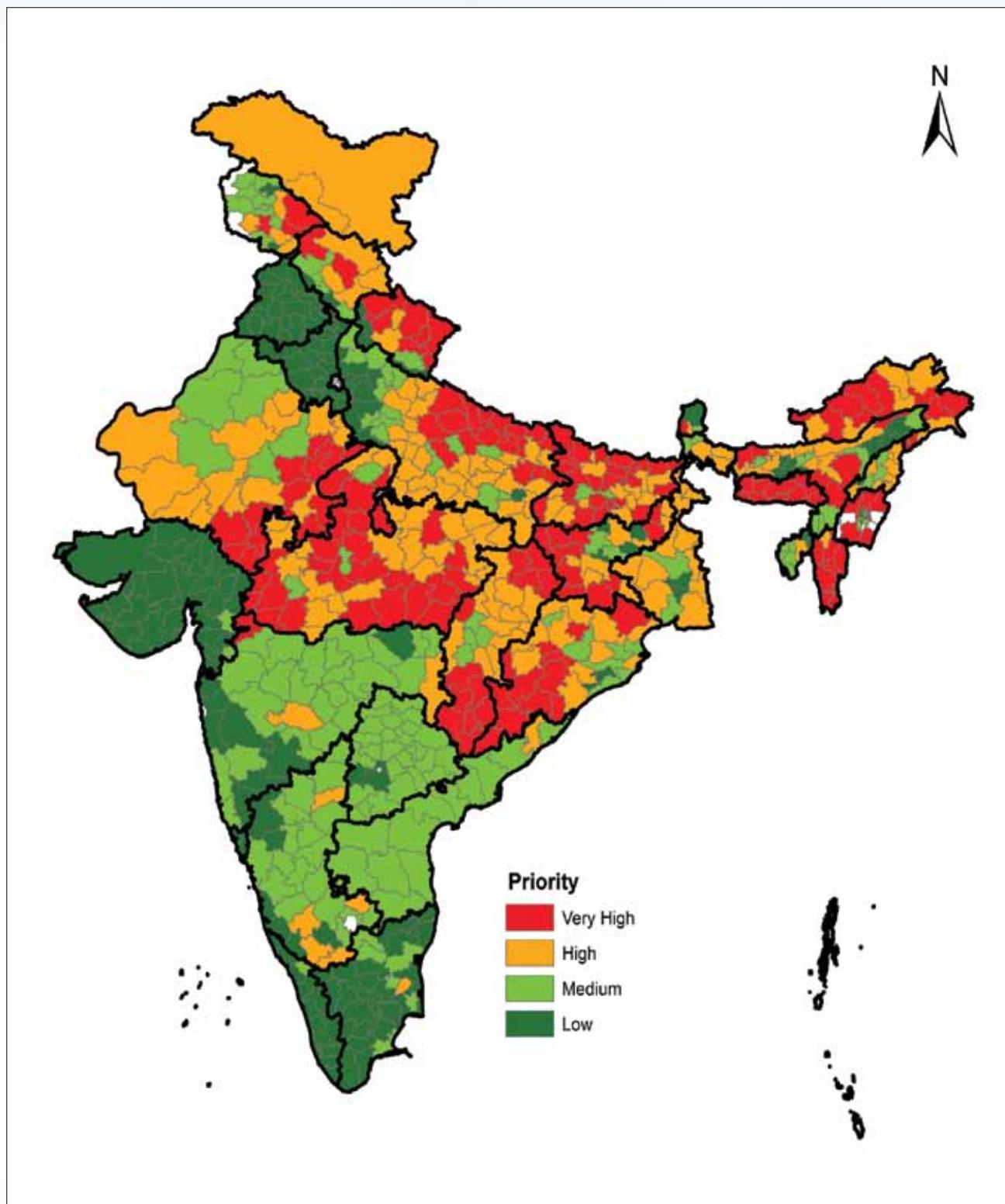


Fig. 2.37: Priority districts based on livelihood Index

**Table 4. Categorization of districts based on Integrated Livelihood Index**

State	No. of Districts				
	Very High	High	Medium	Low	Total
Andhra Pradesh		1	12		13
Arunachal Pradesh	12	6			18
Assam	5	9	7	6	27
Bihar	24	13	1		38
Chhattisgarh	12	11	4		27
Goa				2	2
Gujarat			2	31	33
Haryana				21	21
Himachal Pradesh	2	4	4	2	12
Jammu & Kashmir including Ladakh (UT)	3	6	11	2	22
Jharkhand	10	8	2	4	24
Karnataka		5	18	6	29
Kerala			1	13	14
Madhya Pradesh	25	23	3		51
Maharashtra	1	2	23	8	34
Manipur	5		3	1	9
Meghalaya	11				11
Mizoram	7	1			8
Nagaland		7	3	1	11
Odisha	12	10	7	1	30
Punjab				22	22
Rajasthan	13	13	7		33
Sikkim	1	1	1	1	4
Tamil Nadu		1	6	24	31
Telangana			27	3	30
Tripura		1	5	2	8
Uttar Pradesh	18	30	15	12	75
Uttarakhand	7	2	1	3	13
West Bengal		14	4	2	20
<b>Grand Total</b>	<b>168</b>	<b>168</b>	<b>167</b>	<b>167</b>	<b>670</b>

### 3.4.3. Composite Index (CI)

A Composite Index (CI) was determined for all the 670 districts by integrating the respective scores of NRI and ILI, and assigning them a weightage of two-thirds and one-thirds respectively. The ranking based on composite index is based on the scores, and it sets inter-district priority. The same is shown in Fig. 2.38 and Table 5.

**Table 5: Categorization of districts based on Composite Index**

State	No. of districts				
	Very High	High	Medium	Low	Total
Andhra Pradesh	5	2	5	1	13
Arunachal Pradesh	7	7	4		18
Assam	2	7	12	6	27
Bihar	12	20	6		38
Chhattisgarh	11	10	6		27
Goa				2	2
Gujarat	2	5	12	14	33
Haryana		1	2	18	21
Himachal Pradesh	3	1	5	3	12
Jammu & Kashmir including Ladakh (UT)	7	9	4	2	22
Jharkhand	10	11	3		24
Karnataka	12	10	1	6	29
Kerala			2	12	14
Madhya Pradesh	14	19	12	6	51
Maharashtra	18	7	7	2	34
Manipur	5		3	1	9
Meghalaya	6	5			11
Mizoram	2	5	1		8
Nagaland			8	3	11
Odisha	11	7	10	2	30
Punjab				22	22
Rajasthan	28	4	1		33
Sikkim	1	2	1		4
Tamil Nadu	1	5	12	13	31
Telangana	3	9	12	6	30
Tripura				8	8
Uttar Pradesh	1	13	31	30	75
Uttarakhand	5	3	1	4	13
West Bengal	2	6	6	6	20
Grand Total	168	168	167	167	670

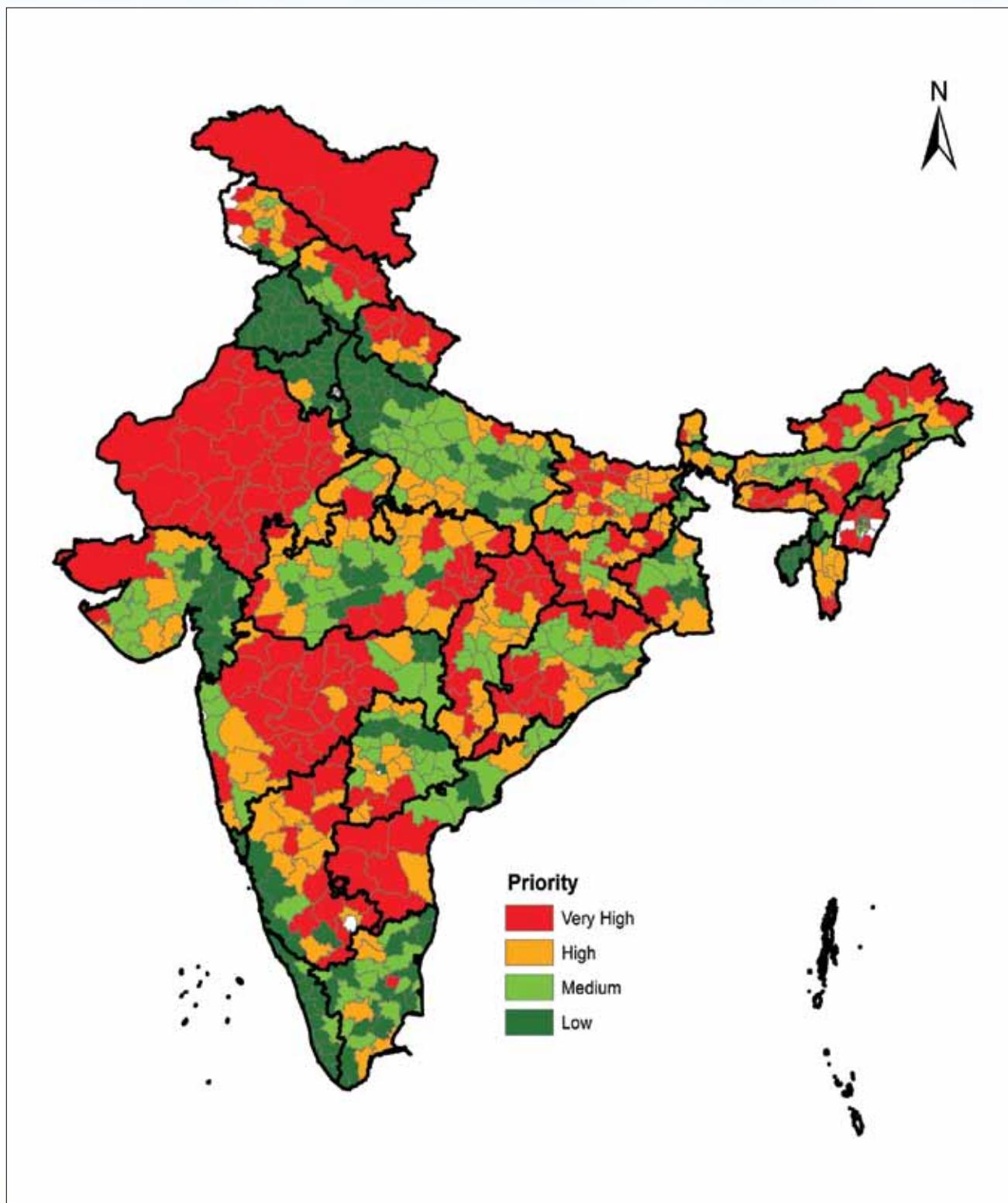


Fig. 2.38: Priority districts based on Composite Index

Based on CI value, all districts (670) have been categorized into 4 equal classes i.e. Very High, High, Medium, Low priority for need based interventions. Large number of districts from Andhra Pradesh, Bihar, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan among others come under the category of very high priority for interventions. The relative position of a district with respect to CI indicates the priority.

It is, however, advisable that in order to identify the specific and appropriate interventions, it is necessary to critically look at the NRI and ILI indices along with their respective individual indicators. A poor status in relation to NRI indicates the need to prioritize interventions, that will augment the status of natural resources. Similarly, a low rank in case of ILI indicates priority needed for the related developmental initiatives. While a composite index can be considered as RAPI for prioritizing rainfed districts, the same can be generically used as a composite index for various other developmental and welfare interventions. When various Ministries and Departments deploy these indices, the nature of the scheme/program will influence which one of the three indices – NRI, ILI, CI is more appropriate.

The very high priority districts based on composite index, which deserve consideration for making immediate interventions is given in Table 6. Districts categorized as very high with respect to NRI and ILI requiring focused action from concerned Departments are given at Table 7 and 8 respectively.

**Table 6. List of very high priority districts (168 in number) based on CI**

State	No. of districts	District
Andhra Pradesh	5	Anantapuramu, Chittoor, Kurnool, Prakasam, YSR Kadapa
Arunachal Pradesh	7	Anjaw, East Kameng, Kurung-Kumey, Tawang, Uppar Dibang Valley, Upper Siang, West Siang
Assam	2	Dhima Haso, Karbi Anglong
Bihar	12	Banka, Bhojpur, Chhapra (Saran), Darbhanga, Gopalganj, Katihar, Madhubani, Muzaffarpur, Nalanda, Purba Champaran, Sheikhpura, Vaishali
Chhattisgarh	11	Balrampur, Dantewada, Jashpur, Kanker, Kawardha (Kabeerdham), Korba, Koriya, Narayanpur, Raj Nandgaon, Surguja
Gujarat	2	Dev Bhoomi Dwaraka, Kachchh
Himachal Pradesh	3	Kinnaur, Kullu, Lahul & Spiti
Jammu & Kashmir including Ladakh(UT)	7	Doda, Kargil, Kishtwar, Kupwara, Leh, Poonch, Reasi
Jharkhand	10	Dumka, Garhwa, Giridih, Gumla, Jamtara, Latehar, Palamu, Ramgarh, Simdega, West Singhbhum
Karnataka	12	Bidar, Vijayapur, Chamrajnagar, Chikkaballapur, Chitradurga, Gadag, Kalaburagi, Hassan, Kolar, Raichur, Ramanagara, Tumakuru

State	No. of districts	District
Madhya Pradesh	14	Alirajpur, Anuppur, Barwani, Betul, Chhindwara, Dindori, Jhabua, Mandla, Neemach, Panna, Shahdol, Shivpuri, Singrauli, Umaria
Maharashtra	18	Ahmednagar, Akola, Amravati, Aurangabad, Beed, Buldana, Dhule, Jalgaon, Jalna, Latur, Nanded, Nashik, Osmanabad, Parbhani, Ratnagiri, Solapur, Washim, Yavatmal
Manipur	5	Chandel, Churachandpur, Senapati, Tamenglong, Ukhrul
Meghalaya	6	East Garo Hills, North Garo Hills, Ribhoi, South Garo Hills, South West Khasi Hills, West Khasi Hills
Mizoram	2	Lawngtlai, Saiha
Odisha	11	Balangir, Gajapati, Kalahandi, Kandhamal, Kendujhar, Malkangiri, Mayurbhanj, Nabarangapur, Nuapada, Rayagada, Sundargarh
Rajasthan	28	Ajmer, Alwar, Banswara, Barmer, Bhilwara, Bikaner, Bundi, Chittorgarh, Churu, Dausa, Dungarpur, Ganganagar, Hanumangarh, Jaipur, Jaisalmer, Jalore, Jhunjhunu, Jodhpur, Karauli, Nagaur, Pali, Pratapgarh, Rajsamand, Sawai Madhopur, Sikar, Sirohi, Tonk, Udaipur
Sikkim	1	West
Tamil Nadu	1	Perambalur
Telangana	3	Mahabubnagar, Nagarkurnool, Nalgonda
Uttar Pradesh	1	Balrampur
Uttarakhand	5	Chamoli, Pithoragarh, Rudraprayag, Tehri Garhwal, Uttarkashi
West Bengal	2	Purulia, West Medinipur

**Table 7. Very high priority districts based on Natural Resource Index**

State	No. of districts	Names of Districts
Andhra Pradesh	7	Anantapuramu, Chittoor, Kurnool, Nellore, Prakasam, Visakhapatnam, YSR Kadapa
Arunachal Pradesh	4	Anjaw, Kurung-Kumey, Tawang, Uppar Dibang Valley
Bihar	1	Patna
Chhattisgarh	5	Jashpur, Korba, Koriya, Raj Nandgaon, Surguja
Gujarat	18	Ahmadabad, Amreli, Banaskantha, Bhavnagar, Botad, Devbhumi Dwaraka, Dohod, Gandhinagar, Gir Somanath, Jamnagar, Junagadh, Kachchh, Morbi, Patan, Porbandar, Rajkot, Sabarkantha, Surendranagar
Haryana	3	Bhiwani, Mahendragarh, Mewat
Himachal Pradesh	3	Kinnaur, Kullu, Lahul & Spiti
Jammu & Kashmir including Ladakh(UT)	11	Anantnag, Budgam, Baramulla, Doda, Kargil, Kishtwar, Kupwara, Leh, Poonch, Reasi, Srinagar

State	No. of districts	Names of Districts
Jharkhand	9	Bokaro, Deoghar, Dhanbad, Dumka, Garhwa, Gumla, Latehar, Ramgarh, West Singhbhum
Karnataka	21	Bangalore Rural, Belgaum, Bellary, Bidar, Vijayapura, Chamarajanagar, Chikkaballapur, Chitradurga, Davanagere, Dharwad, Gadag, Kalaburagi, Hassan, Haveri, Kolar, Koppal, Mysore, Raichur, Ramanagara, Tumakuru, Yadgir
Madhya Pradesh	6	Alirajpur, Anuppur, Dindori, Shahdol, Shivpuri, Singrauli
Maharashtra	23	Ahmednagar, Akola, Amravati, Aurangabad, Beed, Buldhana, Dhule, Jalgaon, Jalna, Latur, Nagpur, Nanded, Nashik, Osmanabad, Parbhani, Pune, Ratnagiri, Sangli, Satara, Sindhudurg, Solapur, Washim, Yavatmal
Mizoram	2	Lawngtlai, Saiha
Odisha	3	Kendujhar, Mayurbhanj, Sundergarh
Rajasthan	22	Ajmer, Alwar, Barmer, Bhilwara, Bikaner, Chittorgarh, Churu, Dungarpur, Ganganagar, Hanumangarh, Jaipur, Jaisalmer, Jalore, Jhunjhunu, Jodhpur, Nagaur, Pali, Rajsamand, Sikar, Sirohi, Tonk, Udaipur
Sikkim	2	North Sikkim, West Sikkim
Tamil Nadu	14	Dindigal (Anna), Dharmapuri, Karur, Krishnagiri, Namakkal, Perambalur, Ramanathapuram, Salem, The Nilgiris, Thoothukudi (Chidambaram), Tiruchirappalli, Tirunelveli, Tiruppur, Virudhunagar
Telangana	8	Jogulamba Gadwal, Mahabubnagar, Nagarkurnool, Nalgonda, Rangareddy, Sangareddy, Siddipet, Vikarabad
Uttarakhand	4	Chamoli, Pithoragarh, Rudraprayag, Uttarkashi
West Bengal	2	Purulia, West Medinipur

Note: These districts could be considered as water stressed districts or priority districts for natural resource management programs such as integrated watershed development program, drought proofing program, irrigation infrastructure etc.

**Table 8. Very high priority districts based on Integrated Livelihood Index**

State	No. of districts	Districts
Arunachal Pradesh	12	Anjaw, East Kameng, Kurung-Kumey, Lohit, Longding, Lower Dibang Valley, Lower Subansiri, Namsai, Tawang, Tirap, Upper Subansiri, West Siang
Assam	5	Chirang, Dhemaji, Dima hasao, Karbi Anglong, Kokrajhar
Bihar	24	Araria, Arwal, Banka, Bhabhua (Khamur), Bhojpur, Chhapra (Saran), Darbhanga, Gaya, Gopalganj, Katihar, Kishanganj, Lakhisarai, Madhubani, Nalanda, Nawada, Pashchim Champaran, Purba Champaran, Saharsa, Samastipur, Saupal, Sheikhpura, Sitamarhi, Siwan, Vaishali
Chhattisgarh	12	Balrampur, Bastar, Bijapur, Dantewada, Jashpur, Kanker, Kawardha (Kabirdham), Kondagaon, Narayanpur, Sukma, Surajpur, Surguja
Himachal Pradesh	2	Chamba, Kullu

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

<b>State</b>	<b>No. of districts</b>	<b>Districts</b>
Jammu & Kashmir including Ladakh (UT)	3	Doda, Kishtwar, Reasi
Jharkhand	10	Chatra, Dumka, Garhwa, Godda, Gumla, Latehar, Palamu, Saraikela Kharsawan, Simdega, West Singhbhum
Madhya Pradesh	25	Alirajpur, Ashoknagar, Balaghat, Barwani, Betul, Chhindwara, Datia, Dhar, Dindori, Guna, Jhabua, Mandla, Narsinghpur, Panna, Raisen, Rajgarh, Ratlam, Sehore, Seoni, Shajapur, Sheopur, Shivpuri, Umaria, Vidisha, West Nimar (Khargone)
Maharashtra	1	Nandurbar
Manipur	5	Chandel, Churachandpur, Senapati, Tamenglong, Ukhrul
Meghalaya	11	East Garo Hills, East Jaintia Hills, East Khasi Hills, North Garo Hills, Ribhoi, South Garo Hills, South West Garo Hills, South West Khasi Hills, West Garo Hills, West Jaintia Hills, West Khasi Hills
Mizoram	7	Aizawl, Champhai, Lawngtlai, Lunglei, Mamit, Saiha, Serchhip
Odisha	12	Boudh, Deogarh, Gajapati, Kalahandi, Kandhamal, Koraput, Malkangiri, Mayurbhanj, Nabarangpur, Nuapada, Rayagada, Sonepur
Rajasthan	13	Banswara, Baran, Bundi, Chittorgarh, Dausa, Dhaulpur, Dungarpur, Jhalawar, Karauli, Pratapgarh, Sawai Madhopur, Tonk, Udaipur
Sikkim	1	West Sikkim
Uttar Pradesh	18	Azamgarh, Bahraich, Ballia, Balrampur, Barabanki, Basti, Gonda, Hardoi, Kheri, Kushinagar, Lalitpur, Maharajganj, Mau, Sant Kabir Nagar, SiddharthNagar, Sitapur, Shravasti, Unnao
Uttarakhand	7	Almora, Bageshwar, Chamoli, Champawat, Pithoragarh, Tehri Garhwal, Uttarkashi

*Note: The districts as in Table 8 above are very high priority districts in terms livelihood index, and deserve immediate attention of the concerned Ministries/Departments for initiating programs relating to rural livelihoods, education and infrastructure development.*



## CHAPTER 04

# DEPLOYMENT OF NRI, ILI AND CI FOR DEVELOPMENTAL & WELFARE INTERVENTIONS

### 4.0 Utilisation of Prioritization Indices by Ministries and Departments

Prioritization of areas for purpose of intervention by governments is always necessary. This will ensure that the most deserving of the areas get due attention. This becomes important, given the limitations of financial resources, as also delivery capacities. Governments are always expected to be transparent and objective in their choice. The indices developed herein are based on data and scientific methodology, and therefore the Prioritization of districts based on various parameters are objective and transparent. The three indices, NRI, ILI and RAPI/CI are amenable to deployment as per specific requirements of a district and the nature of the intervention sought to be made.

- Helpful to developmental Ministries/Departments to prioritize their interventions based on resource availability
- Offer scope for coordinating and converging interventions for achieving an ecosystem approach.

Some of the Ministries and Departments, that will benefit from such prioritization are listed below:

- Ministry of Agriculture and Farmers Welfare
- Ministry of Animal Husbandry, Dairying and Fisheries
- Ministry of Rural Development and Panchayati Raj
- Ministry of Environment, Forest and Climate Change
- Ministry of Water Resources
- Ministry of Tribal Welfare
- Ministry of Skill Development
- NITI Aayog

In the sections that follow, some specific areas where the indices are deployable are depicted by Ministries/ Departments.

#### 4.1. Ministry of Agriculture & Farmers Welfare

- Designing comprehensive drought proofing action plans for highly vulnerable districts

- Stabilizing production of millets, oil seeds and pulses which are largely grown in rained areas
- Launching Mission Mode programme on Integrated crop-tree-animal systems that can diversify and stabilize farmers
- Since Agricultural ministry is the nodal agency for NMSA, funds from National Action Plan on Climate Change can be utilized for special schemes like rainwater harvesting and efficient utilization and introduction of drought tolerant varieties of millets, oilseeds and pulses
- Allocation of 'Per Drop More Crop'(PMKSY) based on vulnerability ranking
- Preference in considering tree-based systems and NBM schemes for priority districts
- Imparting rationality to crop insurance schemes (PMFBY and RWBCIS) based on degree of vulnerability of the district to weather, and agro-ecology

Specific strategies to be developed by MoA & FW may include the following:

- Cropping intensity enhancement in NRI prioritized districts
- *Rabi* season crops- Pulses and Oilseeds. High yielding varieties promotion; more nutrient resources can be promoted
- Opportunity for organic farming and systems of conservation agriculture
- Drought tolerant varieties, crop diversification, pulses and oilseeds, millets promotion in main *kharif* season in Low NRI districts

#### **4.2. Ministry of Rural Development and Panchayati Raj**

- A revised IWMP (Integrated Watershed Development Program) with new Guidelines can be formulated in identified drought prone districts with differential focus on interventions
- New IWMP Guidelines can encompass Springshed projects too
- MGNREGS Guidelines can be revised to give more emphasis on water harvesting works (there is a demand from farmers all over the country to link MGNREGS with agriculture). *In situ* conservation practices can also be included as MGNREGS eligible items
- Special focus on 168 districts under NRLM to provide off-season employment in non-farm sectors as most rainfed districts have single cropping season for 3-4 months. This can reduce distress migration

Specific strategies to be developed by MoRD & PR may include the following

- Land based interventions can be decided for NRI districts.
- Promotion of *in situ* conservation works in low NRI districts- works with low material component and higher manpower requirements
- Very high and high priority NRI districts- Water augmentation works be taken up. Material component can be enhanced.
- Very high and high priority ILI districts be given priority for NRLM

#### **4.3. Jal Shakti - Department of Water Resources**

- A special sub-plan on water resources development in rainfed districts focusing on

surface water harvesting and ground water recharge

- Soil moisture security with focussed *in situ* moisture conservation measures
- Mission Kakatiya like programs—for rejuvenation of traditional water bodies
- Amelioration of the dark blocks in priority districts
- Identification and prioritization of 100 water stressed districts (Union Budget,2020)

Specific strategies to be developed by MoWR may include the following

- More water augmentation possibility in high NRI districts.
- Irrigation intensity— an opportunity.
- Promotion of water conservation and water management-WUAs (Water User Associations)
- Judicious utilisation of available resources including ground water- a top priority in Low score NRI districts.
- Micro irrigation- Essential in low score NRI districts

#### **4.4. Ministry of Tribal Affairs**

- Many districts identified through Composite index fall in tribal belt due to low livelihood index. To provide alternate income sources in these areas, special programs can be designed to enhance their skills and income. TSP funds can be effectively made use of, in convergence with other developmental initiatives
- Special program on organic farming in tribal districts for high value crops can be developed in these districts. Best example is the successful high curcumin turmeric cultivation in Kandamahal region of Odisha through KASAM (Kandhamal Apex Spices Association for Marketing), a Farmers' cooperative organization

Specific strategies to be developed by MoTA may include the following

- Low score ILI districts to be top priority for new developmental programs.
- Need investments for overall livelihood and economic development in Low score ILI districts

#### **4.5. Ministry of Environment, Forests and Climate Change**

- Adaptation Fund available with NABARD- Since majority of the very high and high priority CI districts are extremely vulnerable to climate change, new programs can be developed by NABARD on climate change adaptation, with focus on water management/water harvesting and increasing cropping intensity etc. under Adaptation Fund
- Multilateral funds under Green Climate Fund (GCF) can be utilized to develop a dedicated climate adaptation plan for very high and high priority districts. ICAR and SAUs can provide technical support
- MoEF & CC can design a new scheme on agriculture and water resources development by converging funds from 4-5 available missions under NAPCC
- Forest tracts, particularly those constituting upper catchments of watersheds can be prioritized under rejuvenation and protection initiatives

#### **4.6. Ministry of Animal Husbandry, Dairying & Fisheries**

- Vulnerable districts from the perspective of livestock density and ratio of veterinary centres in proportion to livestock will help in guiding states to prioritize investments in these districts based on a comprehensive development plan.
- Data on various land uses can be utilized to work out the strategies for achieving fodder security in livestock dominant districts.
- Districts with well-endowed natural resources can be considered for promoting inland fisheries, and augment the farmers' income. Diversified agriculture is also a risk management tool.
- The livestock dominant districts could be strategized for promotion of integrated farming system, adopting improved livestock management and fodder production.
- Small ruminants and camels form the backbone of livelihood in highly vulnerable districts. A Comprehensive Plan with focus on breed improvement, and multiplication & distribution among the small, marginal and landless farmers in these priority districts would help.
- In vulnerable districts of the desert States of Gujarat and Rajasthan, Government Camel Centres may be developed and dairy cooperatives for camel milk be promoted.

#### **4.7. Ministry of Skill Development**

- Special skills can be developed for the landless labour in rainfed districts, where employment options are limited, particularly during lean season
- These skills can be related to farm (secondary agriculture) or non-farm sectors

#### **4.8. NITI Ayog**

- Aspirational districts can be identified and prioritized for interventions based on RAPI/ CI ranking

#### **4.9. New Initiatives for Rainfed Areas Development**

- Comprehensive drought proofing of 168 districts identified as priority
- Focused attention on 100 water stressed districts
- Interventions under integrated farming systems (IFSs) for risk mitigation
- Prioritization of districts, as also type of interventions needed to improve agricultural output, cumulative of various sub-sectors of the system - field crops, horticultural crops, livestock, fisheries etc.

#### **4.10. Deployment of Prioritization Tools for other agencies**

In addition to the Ministries and Departments discussed above, many others including at both central and state levels can use the three indices to Prioritize their own interventions relating to development and welfare. In fact, all other agencies outside the government, including NGOs, Corporate Bodies, International Funding and Development Agencies, various Research Organisations can benefit from appropriate deployment of the three indices, NRI, ILI and RAPI/CI.

## CHAPTER 05

# RAINFED AGRICULTURE - BUILDING & MAINTAINING CENTRALIZED DATABASE

### 5.0 Need for a Common Database

Data collection, quality check and updation at frequent intervals is necessary for policy planning exercise. Some sectors have been witnessing substantial changes over time due to developmental programs of central/state governments. Further, with market forces dominating the agriculture sector, frequent changes in cultivated areas, cropping patterns, management practices are also observed across the country. The parallel changes have been taking place in various dimensions of livelihood which necessarily need to be part of any planning process. With time, developmental needs are changing along with peoples' aspirations. Hence, it is imperative to update the data in respect of various natural resource and livelihood parameters at the district level to enable planning at national level, and update data at block / mandal level to enable planning at state level. It is desired that the state governments recognize the need for reliable and quality checked data. Though some sectors such as agriculture/ water resources are under state/ concurrent list vide Schedule VII of Article 246 of Constitution of India, the central government also initiates pan-India programs in agriculture and allied sectors, irrigation, rural development etc. In the pursuit of more inclusive growth across the country, many programmes such as AIBP, IWMP, MGNREGS, PMFBY, NRLM, NRHM, Jal Jeevan Yojana, Jal Shakthi Abhiyan etc. have been launched by Government of India.

Further, in the aftermath of COVID-19, the Govt. of India has in May 2020 announced several reforms in agricultural sector, along with a big size of capital investments under Aatmanirbhar Bharat. This is expected to stimulate investments in infrastructure related to both backward & forward linkages at field level.

While working on the prioritization of rainfed areas, the Task Force faced several difficulties in aggregating the data from various sources. In instances, certain data was not available at district level also. The states collect extensive data regularly, but many a time it is not organised in standardised formats. It was also seen by the Task Force, the data was not up to date in various states, making it difficult to undertake comparison of states and districts across the country at a given point of time.

Non-availability of long-term statistics on socio-economic and livelihood indicators is a major concern. There is no Organisation of the central government, that maintains a single data base by assimilating information on various parameters at district level and make it available to stakeholders. While some agencies like NABARD provide district data, considerable variation with respect to coverage and completeness of variables is observed. The respective state governments which are responsible for data collection and updation have not put a robust mechanism for data collection, maintenance and providing access to users in a timely manner. Status on data collection, updation and maintenance is not uniform across all states. In the absence of timely updation of data on relevant parameters, utilization of data corresponding to different time periods for various states circumscribes its usefulness and relevance of the output from use of such data for informed policy making.

## **5.1 Template for Data Collection and Maintenance of Centralized Database**

It would be useful to adopt a comprehensive template for data collection, and maintenance of centralized database in respect of rainfed areas for use by both central and state level agencies.

Data availability on agricultural statistics (area, production and productivity at district level) and land use statistics (nine-fold classification at district level) are maintained by DACNET of MoA & FW, and the users can access data based on their needs. Base data for these databases is sourced from respective state governments. Long term daily data on weather parameters (rainfall, temperature) is being made available by India Meteorological Department (IMD).

Data on agriculture statistics being maintained by DACNET has certain limitations in the context of decision and policy making for rainfed agriculture. While one could compute rainfed and irrigated cultivated area from available statistics, production and productivity information from rainfed and irrigated areas is not available separately. This is a constraint in estimating the contribution of rainfed area towards production of different crops. Therefore, it is essential to make available the season-wise data area sown, production and productivity of crops for irrigated and rainfed situations separately. Inter-cropping systems are predominant in rainfed areas. From the existing data systems, it would be difficult to conclude whether a system is inter-cropped or otherwise. Only when such sophisticated analysis and interpretation are possible, it becomes feasible to appreciate the situation and draw policy and program framework for the needed improvements. As of now, the rainfed areas though large in extent are not contributing proportionately to the agricultural wealth of the country, and there is scope to harvest the huge potential they bear, only if appropriate technology and policy support are offered.

Based on thorough discussions, different templates are suggested for data collection at farm level to be evolved into aggregation at block and district levels. It is suggested, that the state governments may maintain the farm level data, and aggregated further by them at block and district levels. They may then share the district level data with federal government, and also provide access to all other stakeholders including research institutions, policy making bodies, professional bodies etc.

In collecting farm level data, due care must be taken to collect it on seasonal and annual basis. With implementation of programs such as PMFBY (Prime Minister's Fasal Bheema Yojana) and Pradhan Mantri Kisan Samman Nidhi, a large volume of data is being generated which if combined with other data sources through appropriate tools such as geo-referencing and other identifiers, it can result into a highly useful database for both program planning and monitoring. The data in respect of MGNREGS (Mahatma Gandhi National Rural Employment Guarantee Scheme), Integrated Watershed Development Scheme, National Horticulture Mission, Micro Irrigation Scheme, Soil Health Card Scheme etc., wherein resource conservation and augmentation measures are developed, can also be linked to understand development and utilization of resources at farmer's field level.

### **Crop statistics may include the following in addition to existing parameters**

- Information on cropping systems details (rainfed- rainfed, rainfed- irrigated, irrigated- rainfed etc)
- Productivity of rainfed crops for each soil type/soil depth
- Productivity and production from rainfed areas
- Information on inter-cropping systems, their area and productivity
- Rainfed within and outside canal commands area
- Information on irrigation application method (flood/ micro (drip/sprinkler) and source of irrigation

### **Land use statistics may include the following in addition to existing parameters**

- Degraded lands under the heading of land not available for cultivation
- Net cropped area to be segregated into information on area under field/arable crops, area under horticulture (vegetables, fruits, nuts, flowers and tuber crops) and area under fodder crops.

**Source-wise irrigated area:** to provide information on irrigated area (net and gross) under tanks, for both medium and minor tanks.

**Area irrigated by wells:** to provide geo-referenced information of location of tube wells and other wells within the command area or outside the canal command area

**District Infrastructure:** Up to date district level Information on such variables as warehouse capacity, cold stores, institutional agricultural credit, fertilizer consumption, number of regulated whole sale agricultural markets, aggregation platforms (GrAMs), crop insurance (insured farmers), distress migration for livelihood, GDP and contribution of agriculture and other sectors to GDP, per capita income etc. may be collected or collated from other sources and made available at single point.

### 5.1.1. Template for data collection - Individual farm holdings

District:      Block:      Village:

Farmer's name:

Land holding details:

#### A. Irrigated area:

Soil type:

Soil depth:

Source of irrigation: Reservoir (canal)/ Groundwater (Tube well/other well)/ Tank (Medium/ Minor)

Irrigation method Cropping system (Intercropping system/ sole crop)

Flood/	Crop	Crop	Nutrient Consumption	Productivity
--------	------	------	----------------------	--------------

Micro/	Season	Season		
--------	--------	--------	--	--

No irrigation

#### B. Rainfed area

Soil type:

Soil depth:

Cropping system (Intercropping system/ sole crop)

Only rainfall	Crop	Crop	Nutrient Consumption	Productivity
---------------	------	------	----------------------	--------------

WHS	Season	Season		
-----	--------	--------	--	--

- In case of intercropping system: information: area and productivity to be provided separately
- Crops include field crops, horticulture, tree plantations, vegetables, fodder crops etc
- Crop season: Kharif, Rabi, Summer, Perennial

### 5.1.2. Template for rainfed area production system

Dist.	Cropping system	Season	Soil type	Soil depth	Coverage & Productivity								
					Fully Rain dependant				Protected Irrigation (Tank/Pond/WHS/Wells)				
					Main crop	Area	Yield	Inter crop	Area	Yield	Main crop	Area	Yield

### 5.1.3. Template for irrigated area production system

Dist.	Cropping system	Season	Soil type	Soil depth	Coverage & Productivity								
					Main crop	Area	Yield	Inter crop	Area	Yield	Main crop	Area	Yield

### 5.2. Dynamic Information System for Rainfed Districts – An Institutional Mechanism

One of the tasks, that the Task Force was assigned was to suggest an institutional mechanism, consisting of a consortium of national agencies, that can periodically generate dynamic information for rainfed districts.

The Task Force recommends that the data, as described in the table below, be regularly collected, compiled and updated. In addition, the Task Force also recommends that NRRA may play a pivotal role of a liaising agency for purpose of ensuring data collection by respective Ministries/ Departments, and making it available to the user departments. ICAR-CRIDA may build and host the database, and maintain it as ‘Rainfed Areas Data Repository’ (RADAR), and make it available to various stakeholders.

Provision of adequate human and financial resources is critical to creation and sustaining of such database system. The NRAA may seek additional funds for establishing a dedicated database system through ICAR-CRIDA. The entire database could be maintained in two sets, both at NRAA and ICAR-CRIDA, each serving as the mirror image of the other. Such a database can then support both development planning and research prioritization.

**Table 9: Database requirements on parameters, desirable frequency of data collection and responsible agencies**

#### A. NRM parameters

Sl. No	Parameter	Data source	Additional data providers	Current frequency of data collection	Desirable frequency of data collection	Remarks
1	Drought frequency (Met)	Derived from IMD	State Dept. of Planning/ Revenue/ Disaster Management Department	Updated once in a while	Yearly publication containing details on season wise –either district or grid-based information	Data available with state government could be made available through Disaster Management Authorities/ Dept of Agriculture/ Planning Boards

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

<b>Sl. No</b>	<b>Parameter</b>	<b>Data source</b>	<b>Additional data providers</b>	<b>Current frequency of data collection</b>	<b>Desirable frequency of data collection</b>	<b>Remarks</b>
2	Rainfall (Average annual)	IMD	State Dept. of Planning/ Revenue/ Disaster Management Department, etc.	Updated once in a while	Annual	Data available with state government could be made available through Disaster Management Authorities/ Dept of Agriculture/ State Planning Board Database could be updated with annual data for each at district level.
3	Cultivated area under rainfed conditions	Derived from DACNET, State Govt source	State Agriculture Department, Irrigation and Revenue Dept., Bureau of Economics and Statistics wing in Planning Department, ISRO	Annual	Season-wise and Annual	<p>State Departments may provide the data in a timely manner. Data could be integrated with DACNET data portal.</p> <p>State Departments may collect additional information, such as intercrops, area under different irrigation methods, rainfed area as given at 6.1.1 to 6.1.3</p> <p>The initiative could be that of the Statistics Division of DAC&amp;FW. The responsibility could be entrusted to State Agriculture Department.</p> <p>Ministry of Water Resources may collect data through State level Irrigation/Ground Water Department to synthesize data on use of irrigation facilities (both surface and ground water). The State Revenue authority will also need to offer due support.</p>
4	Groundwater development (utilization & replenishment)	CGWB	State Groundwater Board, ISRO	Once in 3-5 years	Yearly	Block level data could also be made available in public domain

## PRIORITY OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA

Sl. No	Parameter	Data source	Additional data providers	Current frequency of data collection	Desirable frequency of data collection	Remarks
5	Status of ground water (recharge from various sources i.e. rainfall, other sources including canals, ponds, tanks etc)	Derived from CGWB	State Groundwater Board	Once in 3-5 years	Season and year wise	Block level data could also be made available in public domain
5	Available water content of soil	Global data set	ICAR-NBSSLUP, ISRO			Depth-averaged available soil water content (at district or grid-based information is required
6	Permanent pastures and other grazing lands	DACNET, State Govt. source	State Dept. of Planning/ Revenue/ ISRO/ Disaster Management Department etc.	Annual	Annual	State Departments may provide the data in a timely manner. Data could be integrated with DACNET data portal
7	Cultivable waste lands	DACNET, State Govt. source	State Dept. of Planning/ Revenue/ ISRO/ Disaster Management Department etc.	Annual	Annual	State Departments may provide the data in a timely manner. Data could be integrated with DACNET data portal
8	Current fallows and other fallow lands	DACNET, State Govt. source	State Dept. of Planning/ Revenue/ ISRO/ Disaster Management Department etc.	Annual	Annual & season-wise	State Departments may provide the data in a timely manner. Data could be integrated with DACNET data portal
9	Barren and uncultivable waste-land	DACNET, State Govt. source	State Dept. of Planning/ Revenue/ ISRO/ Disaster Management Department etc.	Annual	Annual	State Departments may provide the data in a timely manner. Data could be integrated with DACNET data portal

Sl. No	Parameter	Data source	Additional data providers	Current frequency of data collection	Desirable frequency of data collection	Remarks
10	Slope/ Topography	SRTM data, NRSC	ISRO		Once in 3 years	-
11	Area under degraded and waste lands	Wasteland Atlas NRSC	ISRO	Annual	Annual	-
12	Variability in NDVI	MNCFC	ISRO	Generated for this report	Yearly and seasonal (kharif, rabi, summer)	-

## B. Livelihood parameters

Sl. No	Parameter	Source of data	Additional data providers	Current frequency of data collection	Desirable frequency of data collection	Remarks
1	Small and Marginal Farmers	Agriculture Census, DACFW, GoI	State Planning Department, Revenue Department	once in 5 years	once in 3 years	Though the data are collected by state agencies, there is a time lag between data collection and availability through the Census. This lag can be shortened, if data is accessed from the states directly. This data may also provide according to the status of irrigation (irrigated, rainfed, partly irrigated).
2	SC/ST population in rural areas	Population Census, GoI	State Planning Dept., Revenue Dept.	once in 10 years	once in 5 years	-
3	Workforce engaged in Agriculture	Population Census, GoI	State Planning Department	once in 10 years	once in 5 years	-
4	Rural population density	Population Census, GoI	State Planning Department	once in 10 years	once in 5 years	-
5	Literacy in rural areas	Population Census, GoI	State Planning Department	once in 10 years	once in 5 years	-

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

<b>Sl. No</b>	<b>Parameter</b>	<b>Source of data</b>	<b>Additional data providers</b>	<b>Current frequency of data collection</b>	<b>Desirable frequency of data collection</b>	<b>Remarks</b>
6	Number of villages having self-help groups	Population Census, GoI	State Planning Dept., Rural Development Dept. and other concerned state departments	once in 10 years	once in 5 years	-
7	Livestock population	Livestock Census, DAHD, GoI	State Planning Dept. and other relevant state departments	Once in 5 years but not very regular	once in 3 years	-
8	Share of Agriculture in District Domestic Product	National Statistical Commission and RBI	State Dept. of Planning/ Directorate of Economics & Statistics	Yearly	Yearly	District level data not available for recent years for many states. RBI provides latest data at state level. An initiative by RBI entrusting the responsibility to states may help getting latest data at district level. Information on sector-wise composition within agriculture of DDP (crop, livestock, horticulture) may also be provided
9	Per capita income	National Statistical Commission and RBI	State Dept. of Planning/ Directorate of Economics & Statistics	Yearly	Yearly	District level data not available for recent years for many states. RBI provides latest data at state level. An initiative by RBI entrusting the responsibility to States may help getting latest data at district level. Information on sector-wise composition of DDP within agriculture (crop, livestock, horticulture) may also be provided
10	Consumption of fertilizer nutrients (NPK)	Fertiliser Association of India (FAI)		Yearly and Season-wise	Yearly and Season-wise, crop-wise for both irrigated and rainfed situations	Better if DACNET or Dept of fertilisers provides the data. Crop-wise fertiliser use for rainfed and irrigated situations may be provided separately
11	Number of veterinary centres	Farmers' Portal, ( <a href="http://farmer.gov.in">http://farmer.gov.in</a> )	State Dept. of Planning and other relevant state departments	Currently available for single year (reference year not specified)	Once in 3 years; to be synchronised with Livestock Census	-

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

<b>Sl. No</b>	<b>Parameter</b>	<b>Source of data</b>	<b>Additional data providers</b>	<b>Current frequency of data collection</b>	<b>Desirable frequency of data collection</b>	<b>Remarks</b>
12	Number of villages with primary school	Population Census, GoI	State Dept. of Planning and other relevant state departments	once in 10 years	Once in 5 years	-
13	Number of villages with all-weather roads	Population Census, GoI	State Dept. of Planning and other relevant state departments; Ministry of transport	once in 10 years	Once in 5 years	-
14	Regulated wholesale agricultural markets	Directorate of Marketing & Inspection, DACFW, GoI	State Dept. of Planning and other relevant state departments	Available for the year 2004	Once in 5 years	-
15	Outstanding institutional agricultural credit	PLCP, NABARD	State Department of Planning	Yearly	Yearly	Issues of data quality exist with regard to units, etc. Source-wise data adds value. A portal like DACNET will be more useful
16	Number of villages with primary health centre / primary health sub-centre	Population Census, GoI	State Dept. of Planning and other relevant state departments	once in 10 years	Once in 5 years	-
17	Number of households with drinking water facility of tap water from treated source	Population Census, GoI	State Dept. of Planning and other relevant state departments; Dept. of Drinking Water & Sanitation, GoI	once in 10 years	Once in 5 years	-
18	Households with good and liveable housing in rural areas	Population Census, GoI	State Dept of Planning and other relevant state departments	once in 10 years	Once in 5 years	-

**Table 10: Some indicators which could not be used in the study for want of district-wise data and agencies that can generate such data are:**

Sl. No	District level data on	Agency
1	Warehouse capacity for various commodities	Central Warehousing Corporation, FCI and other relevant agencies
2	Crop insurance (insured farmers/ area sown)	PMFBY Portal; information to be provided for rainfed and irrigated crops separately and for rainfed and irrigated situations separately, if a crop is grown both as rainfed and irrigated
3	Distress migration for livelihood	Registrar General of India through Population Census

Whenever new districts are created by a state, it should be made mandatory to create data sets by the respective State Planning Department for the new and residual districts for at least two years preceding the formation of such districts. This will ensure continuity of the database.

**ANNEXURE-I****National Ranking of Districts**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
1	JAISALMER	RAJASTHAN	1	1	299
2	BIKANER	RAJASTHAN	2	2	393
3	BARMER	RAJASTHAN	3	3	241
4	NAGAUR	RAJASTHAN	4	6	291
5	JODHPUR	RAJASTHAN	5	4	370
6	CHURU	RAJASTHAN	6	8	351
7	ANANTAPURAMU	ANDHRA PRADESH	7	7	440
8	UDAIPUR	RAJASTHAN	8	16	52
9	KACHCHH	GUJARAT	9	5	598
10	PALI	RAJASTHAN	10	12	287
11	KURNOOL	ANDHRA PRADESH	11	9	386
12	AHMEDNAGAR	MAHARASHTRA	12	10	446
13	JALOR	RAJASTHAN	13	14	297
14	LAWNGTLAI	MIZORAM	14	92	1
15	DINDORI	MADHYA PRADESH	15	71	16
16	KURUNG-KUMEY	ARUNACHAL PRADESH	16	82	14
17	BHILWARA	RAJASTHAN	17	24	208
18	GUMLA	JHARKHAND	18	79	24
19	KISHTWAR	JAMMU & KASHMIR	19	44	75
20	YSR KADAPA	ANDHRA PRADESH	20	13	428
21	AJMER	RAJASTHAN	21	15	406
22	LEH	LADAKH	22	21	303
23	SOLAPUR	MAHARASHTRA	23	11	524
24	DODA	JAMMU & KASHMIR	24	37	132
25	KALABURAGI	KARNATAKA	25	17	397
26	NASHIK	MAHARASHTRA	26	18	404
27	SIKAR	RAJASTHAN	27	22	325
28	PRAKASAM	ANDHRA PRADESH	28	19	394
29	SAIHA	MIZORAM	29	64	83
30	RAJSAMAND	RAJASTHAN	30	40	190
31	BEED	MAHARASHTRA	31	25	313
32	VIJAYAPUR	KARNATAKA	32	20	413

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
33	JHUNJHUNU	RAJASTHAN	33	31	256
34	UTTARKASHI	UTTRAKHAND	34	72	101
35	DUNGARPUR	RAJASTHAN	35	106	46
36	CHAMOLI	UTTARAKHAND	36	68	121
37	BULDHANA	MAHARASHTRA	37	23	371
38	TAWANG	ARUNACHAL PRADESH	38	161	17
39	ANUPPUR	MADHYA PRADESH	39	53	175
40	PRATAPGARH	RAJASTHAN	40	181	11
41	ALIRAJPUR	MADHYA PRADESH	41	158	20
42	TUMAKURU	KARNATAKA	42	26	382
43	MAYURBHANJ	ODISHAODISHA	43	94	94
44	WEST SINGHBHUM	JHARKHAND	44	97	91
45	ANJAW	ARUNACHAL PRADESH	45	105	80
46	PITHORAGARH	UTTARAKHAND	46	107	87
47	AMRAVATI	MAHARASHTRA	47	32	350
48	LATEHAR	JHARKHAND	48	123	72
49	JALNA	MAHARASHTRA	49	30	398
50	JAIPUR	RAJASTHAN	50	29	411
51	SOUTH WEST KHASI HILLS	MEGHALAYA	51	297	3
52	KULLU	HIMACHAL PRADESH	52	88	159
53	BANSWARA	RAJASTHAN	53	261	10
54	CHITRADURGA	KARNATAKA	54	39	338
55	OSMANABAD	MAHARASHTRA	55	28	443
56	SURGUJA	CHHATTISGARH	56	151	60
57	CHITTOOR	ANDHRA PRADESH	57	34	373
58	WEST KHASI HILLS	MEGHALAYA	58	307	4
59	GARHWA	JHARKHAND	59	144	71
60	ALWAR	RAJASTHAN	60	85	200
61	CHITTORGARH	RAJASTHAN	61	127	89
62	JHABUA	MADHYA PRADESH	62	206	26
63	SENAPATI	MANIPUR	63	335	2
64	KARAULI	RAJASTHAN	64	189	36
65	KARBI ANGLONG	ASSAM	65	302	6
66	UPPER DIBANG VALLEY	ARUNACHAL PRADESH	66	83	226
67	DIMA HASAO	ASSAM	67	342	5
68	RAYAGADA	ODISHA	68	232	22

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
69	SHAHDOL	MADHYA PRADESH	69	99	186
70	SHIVPURI	MADHYA PRADESH	70	126	119
71	SIROHI	RAJASTHAN	71	108	177
72	NAGARKURNOOL	TELANGANA	72	43	387
73	MALKANGIRI	ODISHA	73	350	7
74	KARGIL	LADAKH	74	84	258
75	CHIKKABALLAPUR	KARNATAKA	75	87	244
76	MAHABUBNAGAR	TELANGANA	76	51	365
77	SIMDEGA	JHARKHAND	77	204	50
78	POONCH	JAMMU & KASHMIR	78	58	339
79	HANUMANGARH	RAJASTHAN	79	57	342
80	BALRAMPUR	UTTAR PRADESH	80	208	47
81	LATUR	MAHARASHTRA	81	38	423
82	BALRAMPUR	CHHATTISGARH	82	199	54
83	BIDAR	KARNATAKA	83	55	355
84	WEST SIKKIM	SIKKIM	84	143	138
85	AURANGABAD	MAHARASHTRA	85	35	449
86	TONK	RAJASTHAN	86	159	115
87	PANNA	MADHYA PRADESH	87	210	53
88	REASI	JAMMU & KASHMIR	88	131	166
89	PURBA CHAMPARAN	BIHAR	89	223	49
90	RAICHUR	KARNATAKA	90	67	348
91	LAHAUL & SPITI	HIMACHAL PRADESH	91	74	327
92	PERAMBALUR	TAMIL NADU	92	59	360
93	UKHRUL	MANIPUR	93	274	28
94	JASHPUR	CHHATTISGARH	94	142	165
95	KORIYA	CHHATTISGARH	95	135	183
96	JALGAON	MAHARASHTRA	96	46	438
97	NANDED	MAHARASHTRA	97	56	381
98	RATNAGIRI	MAHARASHTRA	98	50	409
99	WEST MEDINIPUR	WEST BENGAL	99	95	264
100	DHULE	MAHARASHTRA	100	63	363
101	KANDHAMAL	ODISHA	101	219	58
102	CHHAPRA (SARAN)	BIHAR	102	215	61
103	PURULIA	WEST BENGAL	103	124	214
104	BARWANI	MADHYA PRADESH	104	230	59

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
105	SOUTH GARO HILLS	MEGHALAYA	105	403	13
106	RAMANAGARA	KARNATAKA	106	70	374
107	KENDUJHAR	ODISHA	107	125	218
108	NABARANGAPUR	ODISHA	108	222	67
109	KOLAR	KARNATAKA	109	66	388
110	SUNDERGARH	ODISHA	110	121	229
111	SINGRAULI	MADHYA PRADESH	111	148	201
112	DARBHANGA	BIHAR	112	207	92
113	CHANDEL	MANIPUR	113	408	15
114	AKOLA	MAHARASHTRA	114	77	380
115	CHAMARAJANAGAR	KARNATAKA	115	111	268
116	PALAMU	JHARKHAND	116	182	135
117	DUMKA	JHARKHAND	117	168	156
118	NARAYANPUR	CHHATTISGARH	118	312	31
119	BUNDI	RAJASTHAN	119	237	69
120	TEHRI GARHWAL	UTTARAKHAND	120	170	154
121	MANDLA	MADHYA PRADESH	121	290	41
122	BETUL	MADHYA PRADESH	122	198	111
123	VAISHALI	BIHAR	123	245	64
124	CHHINDWARA	MADHYA PRADESH	124	191	139
125	RUDRAPRAYAG	UTTARAKHAND	125	164	194
126	GIRIDIH	JHARKHAND	126	176	174
127	SAWAI MADHOPUR	RAJASTHAN	127	296	48
128	EAST GARO HILLS	MEGHALAYA	128	415	18
129	KATIHAR	BIHAR	129	276	65
130	EAST KAMENG	ARUNACHAL PRADESH	130	404	21
131	CHURACHANDPUR	MANIPUR	131	462	12
132	UMARIA	MADHYA PRADESH	132	247	82
133	WEST SIANG	ARUNACHAL PRADESH	133	318	42
134	KINNAUR	HIMACHAL PRADESH	134	109	319
135	NORTH GARO HILLS	MEGHALAYA	135	427	19
136	KAWARDHA (KABIRDHAM)	CHHATTISGARH	136	196	150
137	SURAJPUR	CHHATTISGARH	137	280	70
138	BALANGIR	ODISHA	138	183	188
139	NUAPADA	ODISHA	139	233	103
140	DEVBHUMI DWARKA	GUJARAT	140	27	563

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
141	PARBHANI	MAHARASHTRA	141	93	364
142	UPPER SIANG	ARUNACHAL PRADESH	142	171	215
143	KUPWARA	JAMMU & KASHMIR	143	90	376
144	RAJ NANDGAON	CHHATTISGARH	144	145	270
145	JAMTARA	JHARKHAND	145	187	192
146	KANKER	CHHATTISGARH	146	267	86
147	GOPALGANJ	BIHAR	147	343	44
148	BANKA	BIHAR	148	414	25
149	KORBA	CHHATTISGARH	149	155	259
150	TAMENGLONG	MANIPUR	150	375	37
151	RAMGARH	JHARKHAND	151	42	530
152	GADAG	KARNATAKA	152	54	498
153	WASHIM	MAHARASHTRA	153	91	384
154	NALGONDA	TELANGANA	154	65	471
155	SHEIKHPURA	BIHAR	155	275	88
156	GANGANAGAR	RAJASTHAN	156	62	481
157	GAJAPATI	ODISHA	157	405	30
158	YAVATMAL	MAHARASHTRA	158	81	425
159	DANTEWADA	CHHATTISGARH	159	268	98
160	MUZAFFARPUR	BIHAR	160	193	202
161	RIBHOI	MEGHALAYA	161	509	9
162	BHOJPUR	BIHAR	162	221	148
163	KALAHANDI	ODISHA	163	304	76
164	NEEMUCH	MADHYA PRADESH	164	205	191
165	NALANDA	BIHAR	165	217	153
166	MADHUBANI	BIHAR	166	225	149
167	HASSAN	KARNATAKA	167	122	326
168	DAUSA	RAJASTHAN	168	253	117
169	LOWER SUBANSIRI	ARUNACHAL PRADESH	169	519	8
170	DHARWAD	KARNATAKA	170	47	535
171	EAST KHASI HILLS	MEGHALAYA	171	251	126
172	BALLARI	KARNATAKA	172	69	490
173	BENGALURU RURAL	KARNATAKA	173	78	470
174	BIJAPUR	CHHATTISGARH	174	363	57
175	SIDDHARTHNAGAR	UTTAR PRADESH	175	406	38
176	GODDA	JHARKHAND	176	262	123

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
177	SANGAREDDY	TELANGANA	177	89	418
178	WEST GARO HILLS	MEGHALAYA	178	283	107
179	ANANTNAG	JAMMU & KASHMIR	179	156	296
180	KORAPUT	ODISHA	180	313	84
181	CHATRA	JHARKHAND	181	300	97
182	MANDSAUR	MADHYA PRADESH	182	184	243
183	YADGIR	KARNATAKA	183	163	283
184	KONDAGAON	CHHATTISGARH	184	235	160
185	LAKHISARAI	BIHAR	185	332	81
186	PAKUR	JHARKHAND	186	209	211
187	BARAN	RAJASTHAN	187	440	35
188	SONBHADRA	UTTAR PRADESH	188	188	246
189	KISHANGANJ	BIHAR	189	301	109
190	SIDHI	MADHYA PRADESH	190	200	228
191	RATLAM	MADHYA PRADESH	191	288	124
192	SARAIKELLA KHARSAWAN	JHARKHAND	192	278	136
193	SAMASTIPUR	BIHAR	193	291	125
194	LUNGLEI	MIZORAM	194	488	23
195	SIWAN	BIHAR	195	325	96
196	GUNA	MADHYA PRADESH	196	311	108
197	CHAMBA	HIMACHAL PRADESH	197	303	114
198	SHEOPUR	MADHYA PRADESH	198	395	62
199	BASTAR	CHHATTISGARH	199	282	143
200	DEOGARH	ODISHA	200	392	63
201	SOUTH SIKKIM	SIKKIM	201	172	295
202	BAGESHWAR	UTTARAKHAND	202	347	90
203	BOKARO	JHARKHAND	203	101	439
204	NANDURBAR	MAHARASHTRA	204	285	147
205	EAST SINGHBHUM	JHARKHAND	205	177	294
206	KOKRAJHAR	ASSAM	206	340	95
207	SEONI	MADHYA PRADESH	207	316	113
208	JHALAWAR	RAJASTHAN	208	442	45
209	LOHIT	ARUNACHAL PRADESH	209	349	100
210	DHOLPUR	RAJASTHAN	210	331	112
211	THOOTUKUDI	TAMIL NADU	211	36	573
212	PUNE	MAHARASHTRA	212	45	559

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
213	BARAMULLA	JAMMU & KASHMIR	213	113	422
214	SRINAGAR	JAMMU & KASHMIR	214	104	451
215	PURNIA	BIHAR	215	279	172
216	MORIGAON	ASSAM	216	252	204
217	PASHCHIM CHAMPARAN	BIHAR	217	475	34
218	SINDHUDURG	MAHARASHTRA	218	118	417
219	SRI POTTI SRI RAMULU NELLORE	ANDHRA PRADESH	219	139	390
220	MYSURU	KARNATAKA	220	165	334
221	BANDA	UTTAR PRADESH	221	190	293
222	SITAMARHI	BIHAR	222	421	68
223	JAHANABAD	BIHAR	223	270	198
224	BHIWANI	HARYANA	224	52	556
225	ALMORA	UTTARAKHAND	225	327	131
226	SUKMA	CHHATTISGARH	226	382	93
227	MADHEPUR	BIHAR	227	293	176
228	HAMIRPUR	UTTAR PRADESH	228	180	317
229	GAYA	BIHAR	229	314	145
230	SATARA	MAHARASHTRA	230	103	469
231	MAHOBA	UTTAR PRADESH	231	216	262
232	LONGDING	ARUNACHAL PRADESH	232	492	32
233	HINGOLI	MAHARASHTRA	233	174	337
234	ASHOKNAGAR	MADHYA PRADESH	234	374	110
235	CHAMPHAI	MIZORAM	235	482	40
236	RAJOURI	JAMMU & KASHMIR	236	211	277
237	BILASPUR	CHHATTISGARH	237	228	253
238	EAST JAITIA HILLS	MEGHALAYA	238	506	27
239	MAHASAMUND	CHHATTISGARH	239	264	217
240	DHEMAJI	ASSAM	240	481	43
241	BHIND	MADHYA PRADESH	241	273	212
242	CHIRANG	ASSAM	242	315	162
243	KOPPAL	KARNATAKA	243	116	458
244	KRISHNAGIRI	TAMIL NADU	244	100	491
245	JOGULAMBA GADWAL	TELANGANA	245	166	358
246	VISAKHAPATNAM	ANDHRA PRADESH	246	162	377
247	GARHWAL	UTTARAKHAND	247	257	232

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
248	BHARATPUR	RAJASTHAN	248	284	210
249	REWA	MADHYA PRADESH	249	294	206
250	SOUTH WEST GARO HILLS	MEGHALAYA	250	400	106
251	SAHEBGANJ	JHARKHAND	251	246	242
252	RAMANATHAPURAM	TAMIL NADU	252	147	412
253	ARWAL	BIHAR	253	378	128
254	SANGLI	MAHARASHTRA	254	49	572
255	WEST NIMAR (KHARGONE)	MADHYA PRADESH	255	334	167
256	ADILABAD	TELANGANA	256	175	361
257	PATNA	BIHAR	257	157	405
258	SATNA	MADHYA PRADESH	258	240	265
259	SIDDIPET	TELANGANA	259	149	420
260	DAVANAGERE	KARNATAKA	260	154	414
261	JAMUI	BIHAR	261	298	213
262	JALAUN	UTTAR PRADESH	262	277	237
263	SUPAUL	BIHAR	263	391	129
264	DINDIGAL (ANNA)	TAMIL NADU	264	96	515
265	TIKAMGARH	MADHYA PRADESH	265	352	170
266	JALPAIGURI	WEST BENGAL	266	220	300
267	BALAGHAT	MADHYA PRADESH	267	370	157
268	RAIGARH	CHHATTISGARH	268	287	240
269	CHHATARPUR	MADHYA PRADESH	269	362	179
270	KHUNTI	JHARKHAND	270	281	247
271	NAGPUR	MAHARASHTRA	271	102	521
272	AMRELI	GUJARAT	272	41	604
273	AGAR MALWA	MADHYA PRADESH	273	372	181
274	CHITRAKOOT	UTTAR PRADESH	274	269	269
275	NORTH SIKKIM	SIKKIM	275	73	557
276	ARARIA	BIHAR	276	412	133
277	BHAVNAGAR	GUJARAT	277	33	618
278	TIRAP	ARUNACHAL PRADESH	278	547	33
279	DHAR	MADHYA PRADESH	279	466	85
280	SOUTH 24 PARGANAS	WEST BENGAL	280	243	288
281	NAYAGARH	ODISHA	281	365	196
282	BHABHUA (KHAIMUR)	BIHAR	282	541	39

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
283	LOWER DIBANG VALLEY	ARUNACHAL PRADESH	283	411	144
284	SHRAVASTI	UTTAR PRADESH	284	521	51
285	WEST JAITIA HILLS	MEGHALAYA	285	567	29
286	MUNGELI	CHHATTISGARH	286	319	225
287	JANGAON	TELANGANA	287	213	344
288	BELAGAVI	KARNATAKA	288	110	516
289	SAHARSA	BIHAR	289	413	152
290	DHUBRI	ASSAM	290	248	305
291	HAVERI	KARNATAKA	291	150	476
292	SERCHHIP	MIZORAM	292	528	56
293	BUDGAM	JAMMU & KASHMIR	293	167	433
294	BALLIA	UTTAR PRADESH	294	451	118
295	DARJEELING	WEST BENGAL	295	195	389
296	BUXAR	BIHAR	296	407	180
297	BOUDH	ODISHA	297	499	79
298	DHARMAPURI	TAMIL NADU	298	138	500
299	SHEOHAR	BIHAR	299	410	173
300	NAMSAI	ARUNACHAL PRADESH	300	480	99
301	BALESWAR(BALASORE)	ODISHA	301	255	312
302	SHAJAPUR	MADHYA PRADESH	302	424	168
303	WEST KAMENG	ARUNACHAL PRADESH	303	351	231
304	PULWAMA	JAMMU & KASHMIR	304	201	399
305	RANGAREDDY	TELANGANA	305	76	574
306	BAHRAICH	UTTAR PRADESH	306	508	77
307	SURENDRANAGAR	GUJARAT	307	61	589
308	UDHAMPUR	JAMMU & KASHMIR	308	367	222
309	PORBANDAR	GUJARAT	309	80	565
310	COOCH BEHAR	WEST BENGAL	310	337	250
311	YADADRI BHUVANAGIRI	TELANGANA	311	169	461
312	MAHARAJGANJ	UTTAR PRADESH	312	530	73
313	KENDRAPARA	ODISHA	313	259	333
314	GANJAM	ODISHA	314	345	252
315	KUMURAM BHEEM ASIFABAD	TELANGANA	315	236	356
316	NAWADA	BIHAR	316	478	122
317	EAST MEDINIPUR	WEST BENGAL	317	179	457

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
318	BALODA BAZAR	CHHATTISGARH	318	266	329
319	LALITPUR	UTTAR PRADESH	319	454	151
320	MAMIT	MIZORAM	320	558	55
321	DHANBAD	JHARKHAND	321	132	522
322	BANDIPORA	JAMMU & KASHMIR	322	197	427
323	AIZAWL	MIZORAM	323	497	116
324	BAGALKOT	KARNATAKA	324	178	479
325	DAMOH	MADHYA PRADESH	325	443	193
326	BEMETARA	CHHATTISGARH	326	265	352
327	DATIA	MADHYA PRADESH	327	476	146
328	LOHARDAGA	JHARKHAND	328	394	238
329	MURSHIDABAD	WEST BENGAL	329	309	306
330	NAGAON	ASSAM	330	329	292
331	WANAPARTHY	TELANGANA	331	256	366
332	GOALPARA	ASSAM	332	344	282
333	BANASKANTHA	GUJARAT	333	48	625
334	RAMBAN	JAMMU & KASHMIR	334	231	400
335	DEOGHAR	JHARKHAND	335	160	510
336	FATEHPUR	UTTAR PRADESH	336	371	271
337	MORENA	MADHYA PRADESH	337	357	281
338	SHIMLA	HIMACHAL PRADESH	338	355	286
339	SHOPIAN	JAMMU & KASHMIR	339	202	455
340	THE NILGIRIS	TAMIL NADU	340	112	552
341	JAJPUR	ODISHA	341	203	453
342	KUSHINAGAR	UTTAR PRADESH	342	560	78
343	UPPER SUBANSIRI	ARUNACHAL PRADESH	343	496	141
344	KANPUR DEHAT	UTTAR PRADESH	344	326	309
345	MAHENDRAGARH	HARYANA	345	75	607
346	SOUTH DINAJPUR	WEST BENGAL	346	426	224
347	BAKSA	ASSAM	347	330	310
348	RAJGARH	MADHYA PRADESH	348	502	140
349	BHAGALPUR	BIHAR	349	353	298
350	BEGUSARAI	BIHAR	350	425	235
351	EAST SIKKIM	SIKKIM	351	214	445
352	AURAIYA	UTTAR PRADESH	352	465	207
353	UDALGURI	ASSAM	353	324	322

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
354	GONDA	UTTAR PRADESH	354	546	104
355	RANCHI	JHARKHAND	355	387	280
356	KOTA	RAJASTHAN	356	368	302
357	VIZIANAGARAM	ANDHRA PRADESH	357	366	304
358	GUNTUR	ANDHRA PRADESH	358	234	419
359	DHENKANAL	ODISHA	359	338	324
360	UJJAIN	MADHYA PRADESH	360	423	255
361	MEDAK	TELANGANA	361	258	408
362	RAE BARELI	UTTAR PRADESH	362	448	239
363	BURHANPUR	MADHYA PRADESH	363	467	216
364	CHAMPAWAT	UTTARAKHAND	364	527	142
365	HARDOI	UTTAR PRADESH	365	544	120
366	HAZARIBAG	JHARKHAND	366	239	434
367	ANGUL	ODISHA	367	271	407
368	MUNGER	BIHAR	368	373	318
369	KRISHNA	ANDHRA PRADESH	369	227	464
370	JHANSI	UTTAR PRADESH	370	379	316
371	NADIA	WEST BENGAL	371	438	266
372	NAMAKKAL	TAMIL NADU	372	152	547
373	SAMBALPUR	ODISHA	373	384	311
374	KHAGARIA	BIHAR	374	432	273
375	KHAMMAM	TELANGANA	375	358	340
376	KATNI	MADHYA PRADESH	376	453	248
377	BONGAIGAON	ASSAM	377	356	349
378	DEWAS	MADHYA PRADESH	378	510	184
379	BALOD	CHHATTISGARH	379	321	375
380	HAMIRPUR	HIMACHAL PRADESH	380	310	391
381	BARAGARH	ODISHA	381	433	284
382	TUENSANG	NAGALAND	382	452	263
383	KIPHIRE	NAGALAND	383	464	260
384	BARPETA	ASSAM	384	388	331
385	ETAWAH	UTTAR PRADESH	385	460	267
386	RAJKOT	GUJARAT	386	60	635
387	SONITPUR	ASSAM	387	385	335
388	DARRANG	ASSAM	388	308	401
389	MIRZAPUR	UTTAR PRADESH	389	483	236

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
390	MANCHERIAL	TELANGANA	390	348	378
391	PAPUM-PARE	ARUNACHAL PRADESH	391	449	285
392	WARANGAL (URBAN)	TELANGANA	392	390	344
393	GIR SOMNATH	GUJARAT	393	98	605
394	MALDA	WEST BENGAL	394	430	308
395	BASTI	UTTAR PRADESH	395	617	74
396	VIKARABAD	TELANGANA	396	114	586
397	EAST SIANG	ARUNACHAL PRADESH	397	529	205
398	CHANGLANG	ARUNACHAL PRADESH	398	486	245
399	ROHTAS	BIHAR	399	535	195
400	KARUR	TAMIL NADU	400	130	571
401	UNNAO	UTTAR PRADESH	401	553	163
402	DURG	CHHATTISGARH	402	376	369
403	BOTAD	GUJARAT	403	86	621
404	WARDHA	MAHARASHTRA	404	241	492
405	JAMNAGAR	GUJARAT	405	146	564
406	ARIYALUR	TAMIL NADU	406	435	314
407	DAHOD	GUJARAT	407	129	579
408	BUDAUN	UTTAR PRADESH	408	554	182
409	VIDISHA	MADHYA PRADESH	409	566	164
410	EAST NIMAR (KHANDWA)	MADHYA PRADESH	410	565	169
411	CHANDRAPUR	MAHARASHTRA	411	346	402
412	GARIABAND	CHHATTISGARH	412	428	332
413	MON	NAGALAND	413	479	275
414	SITAPUR	UTTAR PRADESH	414	606	102
415	KULGAM	JAMMU & KASHMIR	415	305	447
416	GWALIOR	MADHYA PRADESH	416	320	429
417	GADCHIROLI	MAHARASHTRA	417	561	185
418	KAMAREDDY	TELANGANA	418	272	482
419	PATAN	GUJARAT	419	120	594
420	PRATAPGARH	UTTAR PRADESH	420	514	234
421	SAGAR	MADHYA PRADESH	421	522	227
422	RAIGAD	MAHARASHTRA	422	212	531
423	SALEM	TAMIL NADU	423	137	583
424	IMPHAL EAST	MANIPUR	424	328	437
425	SONEPUR	ODISHA	425	592	134

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
426	THOUBAL	MANIPUR	426	396	383
427	KAUSHAMBI	UTTAR PRADESH	427	538	220
428	JUNAGADH	GUJARAT	428	115	608
429	SEHORE	MADHYA PRADESH	429	581	158
430	BARABANKI	UTTAR PRADESH	430	624	105
431	PALGHAR	MAHARASHTRA	431	263	507
432	BANKURA	WEST BENGAL	432	504	272
433	NIRMAL	TELANGANA	433	436	357
434	KANNAUJ	UTTAR PRADESH	434	531	249
435	AZAMGARH	UTTAR PRADESH	435	605	137
436	KAMRUP	ASSAM	436	242	520
437	PEREN	NAGALAND	437	583	178
438	MAINPURI	UTTAR PRADESH	438	534	254
439	BHADRAK	ODISHA	439	381	430
440	SANT KABIR NAGAR	UTTAR PRADESH	440	656	66
441	LAKHIMPUR	ASSAM	441	516	278
442	WARANGAL (RURAL)	TELANGANA	442	471	344
443	FARRUKHABAD	UTTAR PRADESH	443	542	257
444	KANPUR NAGAR	UTTAR PRADESH	444	369	452
445	VIRUDHUNAGAR	TAMIL NADU	445	141	603
446	THANE	MAHARASHTRA	446	292	507
447	SRIKAKULAM	ANDHRA PRADESH	447	439	385
448	PURI	ODISHA	448	473	343
449	KODERMA	JHARKHAND	449	254	528
450	SURYAPET	TELANGANA	450	360	460
451	WAYANAD	KERALA	451	317	488
452	NAGAPATTINAM	TAMIL NADU	452	286	512
453	GHAZIPUR	UTTAR PRADESH	453	576	221
454	JAUNPUR	UTTAR PRADESH	454	596	197
455	GOLAGHAT	ASSAM	455	459	379
456	BISHNUPUR	MANIPUR	456	409	436
457	EAST GODAVARI	ANDHRA PRADESH	457	419	426
458	ZUNHEBOTO	NAGALAND	458	477	367
459	SHAHJAHANPUR	UTTAR PRADESH	459	614	187
460	PHEK	NAGALAND	460	555	276
461	KOLASIB	MIZORAM	461	622	171

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
462	JHARSUGUDA	ODISHA	462	380	477
463	MAHABUBABAD	TELANGANA	463	495	354
464	CHIKKAMAGALURU	KARNATAKA	464	401	462
465	NARSINGHPUR	MADHYA PRADESH	465	643	127
466	RAIPUR	CHHATTISGARH	466	472	392
467	GANDERBAL	JAMMU & KASHMIR	467	354	504
468	LONGLENG	NAGALAND	468	518	330
469	JANJGIR-CHAMPA	CHHATTISGARH	469	573	274
470	BHADRADRI KOTHAGUDEM	TELANGANA	470	512	341
471	RAJANNA SIRCILLA	TELANGANA	471	377	496
472	MEWAT (NUH)	HARYANA	472	134	622
473	KATHUA	JAMMU & KASHMIR	473	550	301
474	AMETHI	UTTAR PRADESH	474	594	230
475	VILUPPURAM	TAMIL NADU	475	389	484
476	ALIPURDUAR	WEST BENGAL	476	562	289
477	MORBI	GUJARAT	477	117	634
478	GORAKHPUR	UTTAR PRADESH	478	598	223
479	CACHAR	ASSAM	479	447	432
480	MAU	UTTAR PRADESH	480	651	130
481	IDUKKI	KERALA	481	359	509
482	THENI	TAMIL NADU	482	322	529
483	AURANGABAD	BIHAR	483	612	219
484	NARMADA	GUJARAT	484	402	489
485	PUDUKKOTTAI	TAMIL NADU	485	341	523
486	AHMEDABAD	GUJARAT	486	133	628
487	TIRUPPUR	TAMIL NADU	487	128	633
488	UNA	HIMACHAL PRADESH	488	364	513
489	ETAH	UTTAR PRADESH	489	494	396
490	THE DANGS	GUJARAT	490	398	499
491	KHORDHA	ODISHA	491	383	506
492	MANDI	HIMACHAL PRADESH	492	580	279
493	VELLORE	TAMIL NADU	493	192	597
494	KHERI	UTTAR PRADESH	494	645	161
495	FIROZABAD	UTTAR PRADESH	495	457	456
496	BILASPUR	HIMACHAL PRADESH	496	463	448

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
497	KAMRUP METROPOLITAN	ASSAM	497	295	549
498	WOKHA	NAGALAND	498	559	323
499	DHAMTARI	CHHATTISGARH	499	563	320
500	SABARKANTHA	GUJARAT	500	153	626
501	TINSUKIA	ASSAM	501	420	495
502	PASCHIM BARDHAMAN	WEST BENGAL	502	474	441
503	KOLHAPUR	MAHARASHTRA	503	336	536
504	SIRSA	HARYANA	504	229	580
505	TIRUVANNAMALAI	TAMIL NADU	505	361	532
506	AMBEDKAR NAGAR	UTTAR PRADESH	506	642	203
507	TIRUNELVELI	TAMIL NADU	507	140	637
508	TIRUCHIRAPPALLI	TAMIL NADU	508	136	639
509	MANDYA	KARNATAKA	509	393	517
510	ALLAHABAD (PRAYAGRAJ)	UTTAR PRADESH	510	484	435
511	NALBARI	ASSAM	511	249	570
512	MAHISAGAR	GUJARAT	512	186	614
513	CHANDAULI	UTTAR PRADESH	513	619	251
514	JABALPUR	MADHYA PRADESH	514	578	321
515	HARDA	MADHYA PRADESH	515	649	199
516	DEORIA	UTTAR PRADESH	516	647	209
517	PILIBHIT	UTTAR PRADESH	517	659	189
518	ARAVALLI	GUJARAT	518	173	624
519	RAISEN	MADHYA PRADESH	519	662	155
520	HAILAKANDI	ASSAM	520	537	403
521	KANGRA	HIMACHAL PRADESH	521	551	395
522	ERODE	TAMIL NADU	522	185	623
523	NORTH 24 PARGANAS	WEST BENGAL	523	591	328
524	SULTANPUR	UTTAR PRADESH	524	635	261
525	BAREILLY	UTTAR PRADESH	525	587	336
526	JAGATSINGHAPUR	ODISHA	526	517	442
527	BHARUCH	GUJARAT	527	244	595
528	MALAPPURAM	KERALA	528	289	577
529	WEST GODAVARI	ANDHRA PRADESH	529	493	478
530	PANCHMAHAL	GUJARAT	530	224	613
531	THIRUVANANTHAPURAM	KERALA	531	250	601
532	DIBRUGARH	ASSAM	532	461	519

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
533	KARIMGANJ	ASSAM	533	525	459
534	KOZHIKODE	KERALA	534	226	616
535	JAYASHANKAR BHUPALPALLY	TELANGANA	535	603	347
536	NORTH DINAJPUR	WEST BENGAL	536	658	233
537	INDORE	MADHYA PRADESH	537	489	503
538	KASGANJ	UTTAR PRADESH	538	593	362
539	QUILON (KOLLAM)	KERALA	539	306	585
540	CUTTACK	ODISHA	540	533	473
541	BIRBHUM	WEST BENGAL	541	629	315
542	KOHIMA	NAGALAND	542	545	467
543	DEHRADUN	UTTARAKHAND	543	507	505
544	MOKOKCHUNG	NAGALAND	544	536	483
545	AGRA	UTTAR PRADESH	545	422	555
546	GANDHINAGAR	GUJARAT	546	119	664
547	FAIZABAD	UTTAR PRADESH	547	623	353
548	BHANDARA	MAHARASHTRA	548	532	501
549	DHALAI (AMBASSA)	TRIPURA	549	648	307
550	VALSAD	GUJARAT	550	458	545
551	JORHAT	ASSAM	551	498	526
552	BHOPAL	MADHYA PRADESH	552	571	465
553	UTTARA KANNADA	KARNATAKA	553	543	494
554	MAHAMAYANAGAR (HATHRAS)	UTTAR PRADESH	554	552	485
555	IMPHAL WEST	MANIPUR	555	418	561
556	TIRUVARUR	TAMIL NADU	556	574	475
557	KARIMNAGAR	TELANGANA	557	549	502
558	NIZAMABAD	TELANGANA	558	569	486
559	MEHSANA	GUJARAT	559	194	649
560	SANT RAVIDAS NAGAR	UTTAR PRADESH	560	588	450
561	THANJAVUR	TAMIL NADU	561	470	554
562	SAMBHAL	UTTAR PRADESH	562	597	454
563	CHHOTA UDAIPUR	GUJARAT	563	417	578
564	MADURAI	TAMIL NADU	564	323	615
565	GONDIA	MAHARASHTRA	565	646	359
566	PALGHAT	KERALA	566	450	562
567	SIVAGANGAI	TAMIL NADU	567	501	544

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
568	SOUTH TRIPURA	TRIPURA	568	620	424
569	KANNUR	KERALA	569	339	612
570	CUDDALORE	TAMIL NADU	570	515	538
571	HOWRAH	WEST BENGAL	571	500	548
572	HOOGHLY	WEST BENGAL	572	568	511
573	LUCKNOW	UTTAR PRADESH	573	621	431
574	FARIDKOT	PUNJAB	574	520	542
575	TAPI	GUJARAT	575	399	599
576	KODAGU	KARNATAKA	576	238	645
577	HOSHANGABAD	MADHYA PRADESH	577	666	290
578	KHOWAI	TRIPURA	578	604	472
579	MEDCHAL	TELANGANA	579	455	576
580	PATHANAMTHITTA	KERALA	580	429	591
581	SAHARANPUR	UTTAR PRADESH	581	641	410
582	NAINITAL	UTTARAKHAND	582	626	444
583	JHAJJAR	HARYANA	583	441	587
584	WEST TRIPURA	TRIPURA	584	607	480
585	KALIMPONG	WEST BENGAL	585	639	415
586	MATHURA	UTTAR PRADESH	586	575	525
587	SRI MUKTSAR SAHIB	PUNJAB	587	540	541
588	SAMBA	JAMMU & KASHMIR	588	524	551
589	UDUPI	KARNATAKA	589	446	593
590	HISAR	HARYANA	590	299	640
591	VADODARA	GUJARAT	591	469	582
592	KANNIYAKUMARI	TAMIL NADU	592	218	655
593	KOTTAYAM	KERALA	593	333	631
594	MANSA	PUNJAB	594	556	543
595	JAMMU	JAMMU & KASHMIR	595	663	372
596	SEPAHIJALA	TRIPURA	596	631	468
597	BIJNOR	UTTAR PRADESH	597	636	466
598	BARNALA	PUNJAB	598	485	581
599	GOMATI	TRIPURA	599	655	416
600	ALLEPPEY	KERALA	600	444	609
601	RAMPUR	UTTAR PRADESH	601	665	368
602	SIRMAUR	HIMACHAL PRADESH	602	654	421
603	KASARAGOD	KERALA	603	503	569

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
604	MORADABAD	UTTAR PRADESH	604	627	487
605	SIVASAGAR	ASSAM	605	511	567
606	VARANASI	UTTAR PRADESH	606	585	533
607	UNAKOTI	TRIPURA	607	610	518
608	ALIGARH	UTTAR PRADESH	608	584	534
609	SOLAN	HIMACHAL PRADESH	609	577	546
610	JAGTIAL	TELANGANA	610	634	493
611	FATEHABAD	HARYANA	611	468	610
612	FIROZPUR	PUNJAB	612	539	568
613	MOGA	PUNJAB	613	487	600
614	FAZILKA	PUNJAB	614	548	566
615	MUZAFFARNAGAR	UTTAR PRADESH	615	652	474
616	JIND	HARYANA	616	491	606
617	SANGRUR	PUNJAB	617	456	620
618	KAITHAL	HARYANA	618	386	641
619	NORTH TRIPURA	TRIPURA	619	633	514
620	SHAMLI	UTTAR PRADESH	620	599	553
621	PEDDAPALLY	TELANGANA	621	660	497
622	SOUTH GOA	GOA	622	431	638
623	BATHINDA	PUNJAB	623	586	558
624	BULANDSHAHR	UTTAR PRADESH	624	632	540
625	JYOTHIBHA PHULE NAGAR (AMROHA)	UTTAR PRADESH	625	638	539
626	ERNAKULAM	KERALA	626	397	650
627	COIMBATORE	TAMIL NADU	627	260	668
628	MEERUT	UTTAR PRADESH	628	628	550
629	ROHTAK	HARYANA	629	437	648
630	TARN TARAN	PUNJAB	630	579	602
631	HARIDWAR	UTTARAKHAND	631	664	527
632	NORTH GOA	GOA	632	434	652
633	KANCHIPURAM	TAMIL NADU	633	590	596
634	SHIVAMOGGA	KARNATAKA	634	669	463
635	BAGHPAT	UTTAR PRADESH	635	611	590
636	KARNAL	HARYANA	636	505	647
637	REWARI	HARYANA	637	445	661
638	GAUTAM BUDDHA NAGAR	UTTAR PRADESH	638	572	630

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl.	DISTRICT	STATE	CI Rank	NRI Rank	ILI Rank
639	DAKSHINA KANNADA	KARNATAKA	639	526	646
640	KAPURTHALA	PUNJAB	640	564	636
641	KURUKSHETRA	HARYANA	641	490	653
642	GURGAON (GURUGRAM)	HARYANA	642	416	666
643	GURDASPUR	PUNJAB	643	640	592
644	DIMAPUR	NAGALAND	644	661	560
645	THRISSUR	KERALA	645	570	642
646	HAPUR	UTTAR PRADESH	646	653	584
647	RUPNAGAR	PUNJAB	647	618	617
648	AMRITSAR	PUNJAB	648	616	619
649	GHAZIABAD	UTTAR PRADESH	649	602	629
650	PATIALA	PUNJAB	650	600	632
651	NAVSARI	GUJARAT	651	644	611
652	KHEDA	GUJARAT	652	557	657
653	FARIDABAD	HARYANA	653	513	665
654	SHAHID BHAGAT SINGH NAGAR	PUNJAB	654	608	643
655	SONIPAT	HARYANA	655	613	644
656	UDHAMSINGH NAGAR	UTTARAKHAND	656	670	537
657	TIRUVALLUR	TAMIL NADU	657	668	575
658	PATHANKOT	PUNJAB	658	667	588
659	SURAT	GUJARAT	659	601	651
660	ANAND	GUJARAT	660	595	654
661	HOSHIARPUR	PUNJAB	661	657	627
662	LUDHIANA	PUNJAB	662	582	659
663	PANIPAT	HARYANA	663	523	669
664	YAMUNANAGAR	HARYANA	664	615	658
665	PALWAL	HARYANA	665	609	663
666	FATEHGARH SAHIB	PUNJAB	666	630	656
667	JALANDHAR	PUNJAB	667	589	667
668	SAS NAGAR	PUNJAB	668	637	660
669	AMBALA	HARYANA	669	650	662
670	PANCHKULA	HARYANA	670	625	670

**ANNEXURE-II****Intrastate Rank drawn from National Rank**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
1	ANDHRA PRADESH	ANANTAPURAMU	1	1	11	7
	ANDHRA PRADESH	KURNOOL	2	2	5	11
	ANDHRA PRADESH	YSR KADAPA	3	3	10	20
	ANDHRA PRADESH	PRAKASAM	4	4	7	28
	ANDHRA PRADESH	CHITTOOR	5	5	2	57
	ANDHRA PRADESH	SRI POTTI SRI RAMULU NELLORE	6	6	6	219
	ANDHRA PRADESH	VISAKHAPATNAM	7	7	3	246
	ANDHRA PRADESH	VIZIANAGARAM	8	10	1	357
	ANDHRA PRADESH	GUNTUR	9	9	8	358
	ANDHRA PRADESH	KRISHNA	10	8	12	369
	ANDHRA PRADESH	SRIKAKULAM	11	12	4	447
	ANDHRA PRADESH	EAST GODAVARI	12	11	9	457
	ANDHRA PRADESH	WEST GODAVARI	13	13	13	529
2	ARUNACHAL PRADESH	KURUNG-KUMEY	1	1	2	16
	ARUNACHAL PRADESH	TAWANG	2	4	3	38
	ARUNACHAL PRADESH	ANJAW	3	3	8	45
	ARUNACHAL PRADESH	UPPER DIBANG VALLEY	4	2	15	66
	ARUNACHAL PRADESH	EAST KAMENG	5	9	4	130
	ARUNACHAL PRADESH	WEST SIANG	6	6	7	133
	ARUNACHAL PRADESH	UPPER SIANG	7	5	14	142
	ARUNACHAL PRADESH	LOWER SUBANSIRI	8	16	1	169
	ARUNACHAL PRADESH	LOHIT	9	7	10	209
	ARUNACHAL PRADESH	LONGDING	10	14	5	232
	ARUNACHAL PRADESH	TIRAP	11	18	6	278
	ARUNACHAL PRADESH	LOWER DIBANG VALLEY	12	10	12	283
	ARUNACHAL PRADESH	NAMSAI	13	12	9	300
	ARUNACHAL PRADESH	WEST KAMENG	14	8	16	303
	ARUNACHAL PRADESH	UPPER SUBANSIRI	15	15	11	343
	ARUNACHAL PRADESH	PAPUM-PARE	16	11	18	391
	ARUNACHAL PRADESH	EAST SIANG	17	17	13	397
	ARUNACHAL PRADESH	CHANGLANG	18	13	17	398

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
3	ASSAM	KARBI ANGLONG	1	6	2	65
	ASSAM	DIMA HASAO	2	13	1	67
	ASSAM	KOKRAJHAR	3	12	4	206
	ASSAM	MORIGAON	4	4	6	216
	ASSAM	DHEMAJI	5	22	3	240
	ASSAM	CHIRANG	6	8	5	242
	ASSAM	DHUBRI	7	2	10	290
	ASSAM	NAGAON	8	10	9	330
	ASSAM	GOALPARA	9	14	8	332
	ASSAM	BAKSA	10	11	11	347
	ASSAM	UDALGURI	11	9	12	353
	ASSAM	BONGAIGAON	12	15	15	377
	ASSAM	BARPETA	13	17	13	384
	ASSAM	SONITPUR	14	16	14	387
	ASSAM	DARRANG	15	7	17	388
	ASSAM	KAMRUP	16	1	23	436
	ASSAM	LAKHIMPUR	17	25	7	441
	ASSAM	GOLAGHAT	18	20	16	455
	ASSAM	CACHAR	19	19	19	479
	ASSAM	KAMRUP METROPOLITAN	20	5	25	497
	ASSAM	TINSUKIA	21	18	21	501
	ASSAM	NALBARI	22	3	27	511
	ASSAM	HAILAKANDI	23	27	18	520
	ASSAM	DIBRUGARH	24	21	22	532
	ASSAM	KARIMGANJ	25	26	20	533
	ASSAM	JORHAT	26	23	24	551
	ASSAM	SIVASAGAR	27	24	26	605
4	BIHAR	PURBA CHAMPARAN	1	7	5	89
	BIHAR	CHHAPRA (SARAN)	2	4	6	102
	BIHAR	DARBHANGA	3	3	12	112
	BIHAR	VAISHALI	4	9	7	123
	BIHAR	KATIHAR	5	12	8	129
	BIHAR	GOPALGANJ	6	21	4	147
	BIHAR	BANKA	7	30	1	148
	BIHAR	SHEIKHPURA	8	11	11	155

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
BIHAR	MUZAFFARPUR	9	2	31	160	
	BHOJPUR	10	6	21	162	
	NALANDA	11	5	24	165	
	MADHUBANI	12	8	22	166	
	LAKHISARAI	13	20	10	185	
	KISHANGANJ	14	17	14	189	
	SAMASTIPUR	15	14	16	193	
	SIWAN	16	19	13	195	
	PURNIA	17	13	25	215	
	PASHCHIM CHAMPARAN	18	34	2	217	
	SITAMARHI	19	31	9	222	
	JAHANABAD	20	10	30	223	
	MADHEPURA	21	15	27	227	
	GAYA	22	18	20	229	
	ARWAL	23	24	17	253	
	PATNA	24	1	38	257	
	JAMUI	25	16	32	261	
	SUPAUL	26	25	18	263	
	ARARIA	27	28	19	276	
	BHABHUA (KAIMUR)	28	37	3	282	
	SAHARSA	29	29	23	289	
	BUXAR	30	26	28	296	
	SHEOHAR	31	27	26	299	
	NAWADA	32	35	15	316	
	BHAGALPUR	33	22	36	349	
	BEGUSARAI	34	32	34	350	
	MUNGER	35	23	37	368	
	KHAGARIA	36	33	35	374	
	ROHTAS	37	36	29	399	
	AURANGABAD	38	38	33	483	
5	CHHATTISGARH	SURGUJA	1	4	4	56
CHHATTISGARH	BALRAMPUR	2	7	2	82	
	JASHPUR	3	2	12	94	
	KORIYA	4	1	13	95	
	NARAYANPUR	5	18	1	118	

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
CHHATTISGARH	CHHATTISGARH	KAWARDHA (KABIRDHAM)	6	6	10	136
	CHHATTISGARH	SURAJPUR	7	15	5	137
	CHHATTISGARH	RAJNANDGAON	8	3	19	144
	CHHATTISGARH	KANKER	9	13	6	146
	CHHATTISGARH	KORBA	10	5	18	149
	CHHATTISGARH	DANTEWADA	11	14	8	159
	CHHATTISGARH	BIJAPUR	12	21	3	174
	CHHATTISGARH	KONDAGAON	13	9	11	184
	CHHATTISGARH	BASTAR	14	16	9	199
	CHHATTISGARH	SUKMA	15	23	7	226
	CHHATTISGARH	BILASPUR	16	8	17	237
	CHHATTISGARH	MAHASAMUND	17	10	14	239
	CHHATTISGARH	RAIGARH	18	17	16	268
	CHHATTISGARH	MUNGELI	19	19	15	286
	CHHATTISGARH	BALODA BAZAR	20	12	22	318
	CHHATTISGARH	BEMETARA	21	11	24	326
	CHHATTISGARH	BALOD	22	20	26	379
	CHHATTISGARH	DURG	23	22	25	402
	CHHATTISGARH	GARIABAND	24	24	23	412
	CHHATTISGARH	RAIPUR	25	25	27	466
	CHHATTISGARH	JANGIR-CHAMPA	26	27	20	469
	CHHATTISGARH	DHAMTARI	27	26	21	499
6	GOA	SOUTH GOA	1	1	1	622
	GOA	NORTH GOA	2	2	2	632
7	GUJARAT	KATCHCH	1	1	13	9
GUJARAT	GUJARAT	DEVBHUMI DWARKA	2	2	4	140
	GUJARAT	AMRELI	3	4	15	272
	GUJARAT	BHAVNAGAR	4	3	21	277
	GUJARAT	SURENDRANAGAR	5	7	10	307
	GUJARAT	PORBANDAR	6	8	6	309
	GUJARAT	BANASKANTHA	7	5	24	333
	GUJARAT	RAJKOT	8	6	28	386
	GUJARAT	GIR SOMNATH	9	10	16	393
	GUJARAT	BOTAD	10	9	22	403
	GUJARAT	JAMNAGAR	11	17	5	405

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
	GUJARAT	DAHOD	12	15	8	407
	GUJARAT	PATAN	13	14	11	419
	GUJARAT	JUNAGADH	14	11	17	428
	GUJARAT	MORBI	15	12	27	477
	GUJARAT	NARMADA	16	26	1	484
	GUJARAT	AHMEDABAD	17	16	26	486
	GUJARAT	THE DANGS	18	24	2	490
	GUJARAT	SABARKANTHA	19	18	25	500
	GUJARAT	MAHISAGAR	20	20	20	512
	GUJARAT	ARAVALLI	21	19	23	518
	GUJARAT	BHARUCH	22	23	12	527
	GUJARAT	PANCHMAHAL	23	22	19	530
	GUJARAT	GANDHINAGAR	24	13	33	546
	GUJARAT	VALSAD	25	28	3	550
	GUJARAT	MEHSANA	26	21	29	559
	GUJARAT	CHHOTA UDAIPUR	27	27	7	563
	GUJARAT	TAPI	28	25	14	575
	GUJARAT	VADODARA	29	29	9	591
	GUJARAT	NAVSARI	30	33	18	651
	GUJARAT	KHEDA	31	30	32	652
	GUJARAT	SURAT	32	32	30	659
	GUJARAT	ANAND	33	31	31	660
8	HARYANA	BHIWANI	1	1	1	224
	HARYANA	MAHENDRAGARH	2	2	5	345
	HARYANA	NUH	3	3	7	472
	HARYANA	SIRSA	4	4	2	504
	HARYANA	JHAJJAR	5	9	3	583
	HARYANA	HISAR	6	5	8	590
	HARYANA	FATEHABAD	7	11	6	611
	HARYANA	JIND	8	13	4	616
	HARYANA	KAITHAL	9	6	9	618
	HARYANA	ROHTAK	10	8	12	629
	HARYANA	KARNAL	11	14	11	636
	HARYANA	REWARI	12	10	15	637
	HARYANA	KURUKSHETRA	13	12	13	641

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
8	HARYANA	GURUGRAM(GURGAON)	14	7	19	642
	HARYANA	FARIDABAD	15	15	18	653
	HARYANA	SONIPAT	16	18	10	655
	HARYANA	PANIPAT	17	16	20	663
	HARYANA	YAMUNA-NAGAR	18	19	14	664
	HARYANA	PALWAL	19	17	17	665
	HARYANA	AMBALA	20	21	16	669
	HARYANA	PANCHKULA	21	20	21	670
9	HIMACHAL PRADESH	KULLU	1	2	2	52
	HIMACHAL PRADESH	LAHAUL &SPITI	2	1	6	91
	HIMACHAL PRADESH	KINNAUR	3	3	5	134
	HIMACHAL PRADESH	CHAMBA	4	4	1	197
	HIMACHAL PRADESH	SHIMLA	5	6	4	338
	HIMACHAL PRADESH	HAMIRPUR	6	5	7	380
	HIMACHAL PRADESH	UNA	7	7	11	488
	HIMACHAL PRADESH	MANDI	8	11	3	492
	HIMACHAL PRADESH	BILASPUR	9	8	10	496
	HIMACHAL PRADESH	KANGRA	10	9	8	521
	HIMACHAL PRADESH	SIRMAUR	11	12	9	602
	HIMACHAL PRADESH	SOLAN	12	10	12	609
10	JAMMU & KASHMIR including Ladakh (UT)	KISHTWAR	1	3	1	19
	JAMMU & KASHMIR	LEH	2	1	9	22
	JAMMU & KASHMIR	DODA	3	2	2	24
	JAMMU & KASHMIR	KARGIL	4	5	5	74
	JAMMU & KASHMIR	POONCH	5	4	10	78
	JAMMU & KASHMIR	REASI	6	9	3	88
	JAMMU & KASHMIR	KUPWARA	7	6	12	143
	JAMMU & KASHMIR	ANANTNAG	8	10	7	179
	JAMMU & KASHMIR	BARAMULLA	9	8	15	213
	JAMMU & KASHMIR	SRINAGAR	10	7	19	214
	JAMMU & KASHMIR	RAJOURI	11	15	6	236
	JAMMU & KASHMIR	BUDGAM	12	11	17	293
	JAMMU & KASHMIR	PULWAMA	13	13	13	304
	JAMMU & KASHMIR	UDHAMPUR	14	19	4	308

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
10	JAMMU & KASHMIR	BANDIPORA	15	12	16	322
	JAMMU & KASHMIR	RAMBAN	16	16	14	334
	JAMMU & KASHMIR	SHOPIYAN	17	14	20	339
	JAMMU & KASHMIR	KULGAM	18	17	18	415
	JAMMU & KASHMIR	GANDERBAL	19	18	21	467
	JAMMU & KASHMIR	KATHUA	20	21	8	473
	JAMMU & KASHMIR	SAMBA	21	20	22	588
	JAMMU & KASHMIR	JAMMU	22	22	11	595
11	JHARKHAND	GUMLA	1	2	1	18
	JHARKHAND	WEST SINGHBHUM	2	3	5	44
	JHARKHAND	LATEHAR	3	5	4	48
	JHARKHAND	GARHWA	4	7	3	59
	JHARKHAND	SIMDEGA	5	14	2	77
	JHARKHAND	PALAMU	6	12	8	116
	JHARKHAND	DUMKA	7	9	10	117
	JHARKHAND	GIRIDIH	8	10	11	126
	JHARKHAND	JAMTARA	9	13	12	145
	JHARKHAND	RAMGARH	10	1	24	151
	JHARKHAND	GODDA	11	19	7	176
	JHARKHAND	CHATRA	12	22	6	181
	JHARKHAND	PAKUR	13	15	13	186
	JHARKHAND	SARAIKELA KHARSAWAN	14	20	9	192
	JHARKHAND	BOKARO	15	4	20	203
	JHARKHAND	EAST SINGHBHUM	16	11	18	205
	JHARKHAND	SAHEBGANJ	17	17	15	251
	JHARKHAND	KHUNTI	18	21	16	270
	JHARKHAND	DHANBAD	19	6	22	321
	JHARKHAND	LOHARDAGA	20	24	14	328
	JHARKHAND	DEOGHAR	21	8	21	335
	JHARKHAND	RANCHI	22	23	17	355
	JHARKHAND	HAZARIBAG	23	16	19	366
	JHARKHAND	KODERMA	24	18	23	449
12	KARNATAKA	KALABURAGI	1	1	12	25
	KARNATAKA	VIJAYAPUR	2	2	13	32
	KARNATAKA	TUMAKURU	3	3	10	42

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
13	KARNATAKA	CHITRADURGA	4	4	6	54
	KARNATAKA	CHIKKABALLAPUR	5	13	1	75
	KARNATAKA	BIDAR	6	7	8	83
	KARNATAKA	RAICHUR	7	9	7	90
	KARNATAKA	RAMANAGARA	8	11	9	106
	KARNATAKA	KOLAR	9	8	11	109
	KARNATAKA	CHAMARAJANAGAR	10	15	2	115
	KARNATAKA	GADAG	11	6	23	152
	KARNATAKA	HASSAN	12	17	4	167
	KARNATAKA	DHARWAD	13	5	26	170
	KARNATAKA	BALLARI	14	10	21	172
	KARNATAKA	BENGALURU RURAL	15	12	18	173
	KARNATAKA	YADGIR	16	20	3	183
	KARNATAKA	MYSURU	17	21	5	220
	KARNATAKA	KOPPAL	18	16	15	243
	KARNATAKA	DAVANAGERE	19	19	14	260
	KARNATAKA	BELAGAVI	20	14	24	288
	KARNATAKA	HAVERI	21	18	19	291
	KARNATAKA	BAGALKOT	22	22	20	324
	KARNATAKA	CHIKKAMAGALURU	23	25	16	464
	KARNATAKA	MANDYA	24	24	25	509
	KARNATAKA	UTTARA KANNADA	25	28	22	553
	KARNATAKA	KODAGU	26	23	28	576
	KARNATAKA	UDUPI	27	26	27	589
	KARNATAKA	SHIVAMOGGA	28	29	17	634
	KARNATAKA	DAKSHINA KANNADA	29	27	29	639
13	KERALA	WAYANAD	1	5	1	451
	KERALA	IDUKKI	2	8	2	481
	KERALA	MALAPPURAM	3	3	5	528
	KERALA	THIRUVANANTHAPURAM	4	2	8	531
	KERALA	KOZHIKODE	5	1	11	534
	KERALA	KOLLAM	6	4	6	539
	KERALA	PALGHAT	7	12	3	566
	KERALA	KANNUR	8	7	10	569
	KERALA	PATHANAMTHITTA	9	10	7	580

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
14	KERALA	KOTTAYAM	10	6	12	593
	KERALA	ALAPPUZHA	11	11	9	600
	KERALA	KASARAGOD	12	13	4	603
	KERALA	ERNAKULAM	13	9	14	626
	KERALA	THRISSUR	14	14	13	645
14	MADHYA PRADESH	DINDORI	1	2	1	15
	MADHYA PRADESH	ANUPPUR	2	1	28	39
	MADHYA PRADESH	ALIRAJPUR	3	6	2	41
	MADHYA PRADESH	JHABUA	4	12	3	62
	MADHYA PRADESH	SHAHDOL	5	3	32	69
	MADHYA PRADESH	SHIVPURI	6	4	14	70
	MADHYA PRADESH	PANNA	7	13	5	87
	MADHYA PRADESH	BARWANI	8	14	6	104
	MADHYA PRADESH	SINGRAULI	9	5	36	111
	MADHYA PRADESH	MANDLA	10	19	4	121
	MADHYA PRADESH	BETUL	11	9	12	122
	MADHYA PRADESH	CHHINDWARA	12	8	17	124
	MADHYA PRADESH	UMARIA	13	16	8	132
	MADHYA PRADESH	NEEMUCH	14	11	33	164
	MADHYA PRADESH	MANDSAUR	15	7	42	182
	MADHYA PRADESH	SIDHI	16	10	41	190
	MADHYA PRADESH	RATLAM	17	18	15	191
	MADHYA PRADESH	GUNA	18	21	10	196
	MADHYA PRADESH	SHEOPUR	19	31	7	198
	MADHYA PRADESH	SEONI	20	22	13	207
	MADHYA PRADESH	ASHOKNAGAR	21	30	11	234
	MADHYA PRADESH	BHIND	22	17	38	241
	MADHYA PRADESH	REWA	23	20	37	249
	MADHYA PRADESH	WEST NIMAR (KHARGONE)	24	24	24	255
	MADHYA PRADESH	SATNA	25	15	45	258
	MADHYA PRADESH	TIKAMGARH	26	25	27	265
	MADHYA PRADESH	BALAGHAT	27	28	21	267
	MADHYA PRADESH	CHHATARPUR	28	27	29	269
	MADHYA PRADESH	AGAR MALWA	29	29	30	273
	MADHYA PRADESH	DHAR	30	36	9	279

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
MADHYA PRADESH	MADHYA PRADESH	SHAJAPUR	31	33	25	302
	MADHYA PRADESH	DAMOH	32	34	34	325
	MADHYA PRADESH	DATIA	33	38	19	327
	MADHYA PRADESH	MORENA	34	26	46	337
	MADHYA PRADESH	RAJGARH	35	40	18	348
	MADHYA PRADESH	UJJAIN	36	32	44	360
	MADHYA PRADESH	BURHANPUR	37	37	39	363
	MADHYA PRADESH	KATNI	38	35	43	376
	MADHYA PRADESH	DEWAS	39	41	31	378
	MADHYA PRADESH	VIDISHA	40	44	23	409
	MADHYA PRADESH	EAST NIMAR (KHANDWA)	41	43	26	410
	MADHYA PRADESH	GWALIOR	42	23	49	416
	MADHYA PRADESH	SAGAR	43	42	40	421
	MADHYA PRADESH	SEHORE	44	47	22	429
	MADHYA PRADESH	NARSINGHPUR	45	48	16	465
	MADHYA PRADESH	JABALPUR	46	46	48	514
	MADHYA PRADESH	HARDA	47	49	35	515
	MADHYA PRADESH	RAISEN	48	50	20	519
	MADHYA PRADESH	INDORE	49	39	51	537
	MADHYA PRADESH	BHOPAL	50	45	50	552
	MADHYA PRADESH	HOSHANGABAD	51	51	47	577
15	MAHARASHTRA	AHMEDNAGAR	1	1	22	12
	MAHARASHTRA	SOLAPUR	2	2	30	23
	MAHARASHTRA	NASHIK	3	3	15	26
	MAHARASHTRA	BEED	4	5	3	31
	MAHARASHTRA	BULDHANA	5	4	9	37
	MAHARASHTRA	AMRAVATI	6	8	5	47
	MAHARASHTRA	JALNA	7	7	13	49
	MAHARASHTRA	OSMANABAD	8	6	21	55
	MAHARASHTRA	LATUR	9	10	18	81
	MAHARASHTRA	AURANGABAD	10	9	23	85
	MAHARASHTRA	JALGAON	11	12	20	96
	MAHARASHTRA	NANDED	12	15	11	97
	MAHARASHTRA	RATNAGIRI	13	14	16	98
	MAHARASHTRA	DHULE	14	16	7	100

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
15	MAHARASHTRA	AKOLA	15	17	10	114
	MAHARASHTRA	PARBHANI	16	20	8	141
	MAHARASHTRA	WASHIM	17	19	12	153
	MAHARASHTRA	YAVATMAL	18	18	19	158
	MAHARASHTRA	NANDURBAR	19	28	1	204
	MAHARASHTRA	PUNE	20	11	33	212
	MAHARASHTRA	SINDHUDURG	21	23	17	218
	MAHARASHTRA	SATARA	22	22	24	230
	MAHARASHTRA	HINGOLI	23	24	4	233
	MAHARASHTRA	SANGLI	24	13	34	254
	MAHARASHTRA	NAGPUR	25	21	29	271
	MAHARASHTRA	WARDHA	26	26	25	404
	MAHARASHTRA	CHANDRAPUR	27	31	14	411
	MAHARASHTRA	GADCHIROLI	28	33	2	417
	MAHARASHTRA	RAIGAD	29	25	31	422
	MAHARASHTRA	PALGHAR	30	27	27	431
	MAHARASHTRA	THANE	31	29	27	446
	MAHARASHTRA	KOLHAPUR	32	30	32	503
16	MAHARASHTRA	BHANDARA	33	32	26	548
	MAHARASHTRA	GONDIA	34	34	6	565
	MANIPUR	SENAPATI	1	3	1	63
	MANIPUR	UKHRUL	2	1	4	93
	MANIPUR	CHANDEL	3	6	3	113
	MANIPUR	CHURACHANDPUR	4	9	2	131
	MANIPUR	TAMENGLONG	5	4	5	150
	MANIPUR	IMPHAL EAST	6	2	8	424
17	MANIPUR	THOUBAL	7	5	6	426
	MANIPUR	BISHNUPUR	8	7	7	456
	MANIPUR	IMPHAL WEST	9	8	9	555
	MEGHALAYA	SOUTH WEST KHASI HILLS	1	3	1	51
	MEGHALAYA	WEST KHASI HILLS	2	4	2	58
	MEGHALAYA	SOUTH GARO HILLS	3	6	4	105
	MEGHALAYA	EAST GARO HILLS	4	7	5	128
18	MEGHALAYA	NORTH GARO HILLS	5	8	6	135
	MEGHALAYA	RIBHOI	6	10	3	161

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
17	MEGHALAYA	EAST KHASI HILLS	7	1	11	171
	MEGHALAYA	WEST GARO HILLS	8	2	10	178
	MEGHALAYA	EAST JAITIA HILLS	9	9	7	238
	MEGHALAYA	SOUTH WEST GARO HILLS	10	5	9	250
	MEGHALAYA	WEST JAITIA HILLS	11	11	8	285
18	MIZORAM	LAWNGTLAI	1	2	1	14
	MIZORAM	SAIHA	2	1	6	29
	MIZORAM	LUNGLEI	3	4	2	194
	MIZORAM	CHAMPHAI	4	3	3	235
	MIZORAM	SERCHHIP	5	6	5	292
	MIZORAM	MAMIT	6	7	4	320
	MIZORAM	AIZAWL	7	5	7	323
	MIZORAM	KOLASIB	8	8	8	461
19	NAGALAND	TUENSANG	1	1	3	382
	NAGALAND	KIPHIRE	2	2	2	383
	NAGALAND	MON	3	4	4	413
	NAGALAND	PEREN	4	10	1	437
	NAGALAND	ZUNHEBOTO	5	3	8	458
	NAGALAND	PHEK	6	8	5	460
	NAGALAND	LONGLENG	7	5	7	468
	NAGALAND	WOKHA	8	9	6	498
	NAGALAND	KOHIMA	9	7	9	542
	NAGALAND	MOKOKCHUNG	10	6	10	544
20	NAGALAND	DIMAPUR	11	11	11	644
	ODISHA	MAYURBHANJ	1	1	10	43
	ODISHA	RAYAGADA	2	8	2	68
	ODISHA	MALKANGIRI	3	17	1	73
	ODISHA	KANDHAMAL	4	6	4	101
	ODISHA	KENDUJHAR	5	3	15	107
	ODISHA	NABARANGPUR	6	7	6	108
	ODISHA	SUNDERGARH	7	2	16	110
	ODISHA	BALANGIR	8	4	13	138
	ODISHA	NUAPADA	9	9	11	139
	ODISHA	GAJAPATI	10	24	3	157

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
21	ODISHA	KALAHANDI	11	13	7	163
	ODISHA	KORAPUT	12	14	9	180
	ODISHA	DEOGARH	13	23	5	200
	ODISHA	NAYAGARH	14	18	14	281
	ODISHA	BOUDH	15	27	8	297
	ODISHA	BALESWAR(BALASORE)	16	10	20	301
	ODISHA	KENDRAPARA	17	11	22	313
	ODISHA	GANJAM	18	16	17	314
	ODISHA	JAJPUR	19	5	27	341
	ODISHA	DHENKANAL	20	15	21	359
	ODISHA	ANGUL	21	12	24	367
	ODISHA	SAMBALPUR	22	22	19	373
	ODISHA	BARAGARH	23	25	18	381
	ODISHA	SONEPUR	24	30	12	425
	ODISHA	BHADRAK	25	20	25	439
21	ODISHA	PURI	26	26	23	448
	ODISHA	JHARSUGUDA	27	19	29	462
	ODISHA	KHORDHA	28	21	30	491
	ODISHA	JAGATSINGHAPUR	29	28	26	526
	ODISHA	CUTTACK	30	29	28	540
	PUNJAB	FARIDKOT	1	4	2	574
	PUNJAB	SRI MUKTSAR SAHIB	2	6	1	587
	PUNJAB	MANSA	3	8	3	594
	PUNJAB	BARNALA	4	2	7	598
	PUNJAB	FIROZPUR	5	5	6	612
	PUNJAB	MOGA	6	3	10	613
	PUNJAB	FAZILKA	7	7	5	614
	PUNJAB	SANGRUR	8	1	14	617
	PUNJAB	BATHINDA	9	12	4	623
	PUNJAB	TARN TARAN	10	10	11	630
	PUNJAB	KAPURTHALA	11	9	17	640
	PUNJAB	GURDASPUR	12	20	9	643
	PUNJAB	RUPNAGAR	13	17	12	647
	PUNJAB	AMRITSAR	14	16	13	648
	PUNJAB	PATIALA	15	14	16	650

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
22	PUNJAB	SHAHID BHAGAT SINGH NAGAR	16	15	18	654
	PUNJAB	PATHANKOT	17	22	8	658
	PUNJAB	HOSHIARPUR	18	21	15	661
	PUNJAB	LUDHIANA	19	11	20	662
	PUNJAB	FATEHGARH SAHIB	20	18	19	666
	PUNJAB	JALANDHAR	21	13	22	667
	PUNJAB	SAS NAGAR	22	19	21	668
22	RAJASTHAN	JAISALMER	1	1	24	1
	RAJASTHAN	BIKANER	2	2	30	2
	RAJASTHAN	BARMER	3	3	19	3
	RAJASTHAN	NAGAUR	4	5	22	4
	RAJASTHAN	JODHPUR	5	4	29	5
	RAJASTHAN	CHURU	6	6	28	6
	RAJASTHAN	UDAIPUR	7	10	8	8
	RAJASTHAN	PALI	8	7	21	10
	RAJASTHAN	JALOR	9	8	23	13
	RAJASTHAN	BHILWARA	10	12	17	17
	RAJASTHAN	AJMER	11	9	31	21
	RAJASTHAN	SIKAR	12	11	26	27
	RAJASTHAN	RAJSAMAND	13	15	15	30
	RAJASTHAN	JHUNJHUNU	14	14	20	33
	RAJASTHAN	DUNGARPUR	15	19	6	35
	RAJASTHAN	PRATAPGARH	16	23	2	40
	RAJASTHAN	JAIPUR	17	13	32	50
	RAJASTHAN	BANSWARA	18	27	1	53
	RAJASTHAN	ALWAR	19	18	16	60
	RAJASTHAN	CHITTORGARH	20	21	10	61
	RAJASTHAN	KARAULI	21	24	4	64
	RAJASTHAN	SIROHI	22	20	14	71
	RAJASTHAN	HANUMANGARH	23	16	27	79
	RAJASTHAN	TONK	24	22	12	86
	RAJASTHAN	BUNDI	25	25	9	119
	RAJASTHAN	SAWAI MADHOPUR	26	29	7	127
	RAJASTHAN	GANGANAGAR	27	17	33	156

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
23	RAJASTHAN	DAUSA	28	26	13	168
	RAJASTHAN	BARAN	29	32	3	187
	RAJASTHAN	JHALAWAR	30	33	5	208
	RAJASTHAN	DHOLPUR	31	30	11	210
	RAJASTHAN	BHARATPUR	32	28	18	248
	RAJASTHAN	KOTA	33	31	25	356
24	SIKKIM	WEST SIKKIM	1	2	1	84
	SIKKIM	SOUTH SIKKIM	2	3	2	201
	SIKKIM	NORTH SIKKIM	3	1	4	275
	SIKKIM	EAST SIKKIM	4	4	3	351
24	TAMIL NADU	PERAMBALUR	1	2	2	92
	TAMIL NADU	THOOTUKKUDI	2	1	19	211
	TAMIL NADU	KRISHNAGIRI	3	4	6	244
	TAMIL NADU	RAMANATHAPURAM	4	13	3	252
	TAMIL NADU	DINDIGAL (ANNA)	5	3	9	264
	TAMIL NADU	DHARMAPURI	6	10	7	298
	TAMIL NADU	THE NILGIRIS	7	5	16	340
	TAMIL NADU	NAMAKKAL	8	14	15	372
	TAMIL NADU	KARUR	9	7	18	400
	TAMIL NADU	ARIYALUR	10	25	1	406
	TAMIL NADU	SALEM	11	9	21	423
	TAMIL NADU	VIRUDHUNAGAR	12	12	24	445
	TAMIL NADU	NAGAPATTINAM	13	19	8	452
	TAMIL NADU	VILUPPURAM	14	24	5	475
	TAMIL NADU	THENI	15	20	11	482
	TAMIL NADU	PUDUKKOTTAI	16	22	10	485
	TAMIL NADU	TIRUPPUR	17	6	27	487
	TAMIL NADU	VELLORE	18	16	23	493
	TAMIL NADU	TIRUVANNAMALAI	19	23	12	505
	TAMIL NADU	TIRUNELVELI	20	11	28	507
	TAMIL NADU	TIRUCHIRAPPALLI	21	8	29	508
	TAMIL NADU	ERODE	22	15	26	522
	TAMIL NADU	TIRUVARUR	23	29	4	556
	TAMIL NADU	THANJAVUR	24	26	17	561
	TAMIL NADU	MADURAI	25	21	25	564

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
25	TAMIL NADU	SIVAGANGAI	26	27	14	567
	TAMIL NADU	CUDDALORE	27	28	13	570
	TAMIL NADU	KANNIYAKUMARI	28	17	30	592
	TAMIL NADU	COIMBATORE	29	18	31	627
	TAMIL NADU	KANCHIPURAM	30	30	22	633
	TAMIL NADU	TIRUVALLUR	31	31	20	657
25	TELANGANA	NAGARKURNNOOL	1	1	15	72
	TELANGANA	MAHABUBNAGAR	2	2	12	76
	TELANGANA	NALGONDA	3	3	21	154
	TELANGANA	SANGAREDDY	4	5	17	177
	TELANGANA	JOGULAMBA GADWAL	5	8	10	245
	TELANGANA	ADILABAD	6	10	11	256
	TELANGANA	SIDDIPET	7	7	18	259
	TELANGANA	JANGAON	8	11	3	287
	TELANGANA	RANGAREDDY	9	4	28	305
	TELANGANA	YADADRI BHUVANAGIRI	10	9	20	311
	TELANGANA	KUMURAM BHEEM ASIFABAD	11	12	8	315
	TELANGANA	WANAPARTHY	12	13	13	331
	TELANGANA	MEDAK	13	14	16	361
	TELANGANA	KHAMMAM	14	17	1	375
	TELANGANA	MANCHERIAL	15	16	14	390
	TELANGANA	WARANGAL (URBAN)	16	20	3	392
	TELANGANA	VIKARABAD	17	6	30	396
	TELANGANA	KAMAREDDY	18	15	22	418
	TELANGANA	NIRMAL	19	21	9	433
	TELANGANA	WARANGAL (RURAL)	20	23	3	442
	TELANGANA	SURYAPET	21	18	19	450
	TELANGANA	MAHABUBABAD	22	24	7	463
	TELANGANA	BHADRADRI KOTHAGUDEM	23	25	2	470
	TELANGANA	RAJANNA SIRCILLA	24	19	25	471
	TELANGANA	JAYASHANKAR BHUPALPALLY	25	28	6	535
	TELANGANA	KARIMNAGAR	26	26	27	557
	TELANGANA	NIZAMABAD	27	27	23	558

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
26	TELANGANA	MEDCHAL	28	22	29	579
	TELANGANA	JAGTIAL	29	29	24	610
	TELANGANA	PEDDAPALLY	30	30	26	621
26	TRIPURA	DHALAI (AMBASSA)	1	7	1	549
	TRIPURA	SOUTH TRIPURA	2	4	3	568
	TRIPURA	KHOWAI	3	1	5	578
	TRIPURA	WEST TRIPURA	4	2	6	584
	TRIPURA	SEPAHIJALA	5	5	4	596
	TRIPURA	GOMATI	6	8	2	599
	TRIPURA	UNAKOTI	7	3	8	607
	TRIPURA	NORTH TRIPURA	8	6	7	619
27	UTTAR PRADESH	BALRAMPUR	1	4	2	80
	UTTAR PRADESH	SIDDHARTHNAGAR	2	12	1	175
	UTTAR PRADESH	SONBHADRA	3	2	34	188
	UTTAR PRADESH	BANDA	4	3	44	221
	UTTAR PRADESH	HAMIRPUR	5	1	47	228
	UTTAR PRADESH	MAHOBA	6	5	40	231
	UTTAR PRADESH	JALAUN	7	7	32	262
	UTTAR PRADESH	CHITRAKOOT	8	6	42	274
	UTTAR PRADESH	SHRAVASTI	9	25	3	284
	UTTAR PRADESH	BALLIA	10	15	12	294
	UTTAR PRADESH	BAHRAICH	11	23	7	306
	UTTAR PRADESH	MAHARAJGANJ	12	26	5	312
	UTTAR PRADESH	LALITPUR	13	16	16	319
	UTTAR PRADESH	FATEHPUR	14	10	43	336
	UTTAR PRADESH	KUSHINAGAR	15	36	8	342
	UTTAR PRADESH	KANPUR DEHAT	16	8	45	344
	UTTAR PRADESH	AURAIYA	17	19	24	352
	UTTAR PRADESH	GONDA	18	32	10	354
	UTTAR PRADESH	RAE BARELI	19	14	33	362
	UTTAR PRADESH	HARDOI	20	31	13	365
	UTTAR PRADESH	JHANSI	21	11	46	370
	UTTAR PRADESH	ETAWAH	22	18	41	385
	UTTAR PRADESH	MIRZAPUR	23	20	31	389
	UTTAR PRADESH	BASTI	24	55	6	395

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
	UTTAR PRADESH	UNNAO	25	34	18	401
	UTTAR PRADESH	BUDAUN	26	35	19	408
	UTTAR PRADESH	SITAPUR	27	52	9	414
	UTTAR PRADESH	PRATAPGARH	28	24	30	420
	UTTAR PRADESH	KAUSHAMBI	29	29	26	427
	UTTAR PRADESH	BARABANKI	30	59	11	430
	UTTAR PRADESH	KANNAUJ	31	27	35	434
	UTTAR PRADESH	AZAMGARH	32	51	15	435
	UTTAR PRADESH	MAINPURI	33	28	37	438
	UTTAR PRADESH	SANT KABIR NAGAR	34	73	4	440
	UTTAR PRADESH	FARRUKHABAD	35	30	38	443
	UTTAR PRADESH	KANPUR NAGAR	36	9	57	444
	UTTAR PRADESH	GHAZIPUR	37	39	27	453
	UTTAR PRADESH	JAUNPUR	38	46	22	454
	UTTAR PRADESH	SHAHJAHANPUR	39	54	20	459
	UTTAR PRADESH	AMETHI	40	45	29	474
	UTTAR PRADESH	GORAKHPUR	41	48	28	478
	UTTAR PRADESH	MAU	42	70	14	480
	UTTAR PRADESH	ETAH	43	22	52	489
	UTTAR PRADESH	KHERI	44	68	17	494
	UTTAR PRADESH	FIROZABAD	45	17	59	495
	UTTAR PRADESH	AMBEDKAR NAGAR	46	67	23	506
	UTTAR PRADESH	ALLAHABAD (PRAYAGRAJ)	47	21	55	510
	UTTAR PRADESH	CHANDAULI	48	56	36	513
	UTTAR PRADESH	DEORIA	49	69	25	516
	UTTAR PRADESH	PILIBHIT	50	74	21	517
	UTTAR PRADESH	SULTANPUR	51	63	39	524
	UTTAR PRADESH	BAREILLY	52	42	48	525
	UTTAR PRADESH	KASGANJ	53	44	50	538
	UTTAR PRADESH	AGRA	54	13	71	545
	UTTAR PRADESH	FAIZABAD	55	58	49	547
	UTTAR PRADESH	MAHAMAYANAGAR (HATHRAS)	56	33	62	554
	UTTAR PRADESH	SANT RAVIDAS NAGAR	57	43	56	560
	UTTAR PRADESH	SAMBHAL	58	47	58	562

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
28	UTTAR PRADESH	LUCKNOW	59	57	54	573
	UTTAR PRADESH	SAHARANPUR	60	66	53	581
	UTTAR PRADESH	MATHURA	61	38	64	586
	UTTAR PRADESH	BIJNOR	62	64	60	597
	UTTAR PRADESH	RAMPUR	63	75	51	601
	UTTAR PRADESH	MORADABAD	64	60	63	604
	UTTAR PRADESH	VARANASI	65	41	65	606
	UTTAR PRADESH	ALIGARH	66	40	66	608
	UTTAR PRADESH	MUZAFFARNAGAR	67	71	61	615
	UTTAR PRADESH	SHAMLI	68	49	70	620
	UTTAR PRADESH	BULANDSHAHR	69	62	68	624
	UTTAR PRADESH	JYOTIBHA PHULE NAGAR (AMROHA)	70	65	67	625
	UTTAR PRADESH	MEERUT	71	61	69	628
	UTTAR PRADESH	BAGHPAT	72	53	73	635
	UTTAR PRADESH	GAUTAM BUDDHA NAGAR	73	37	75	638
29	UTTARAKHAND	UTTARKASHI	1	2	3	34
	UTTARAKHAND	CHAMOLI	2	1	4	36
	UTTARAKHAND	PITHORAGARH	3	3	1	46
	UTTARAKHAND	TEHRI GARHWAL	4	5	7	120
	UTTARAKHAND	RUDRAPRAYAG	5	4	8	125
	UTTARAKHAND	BAGESHWAR	6	8	2	202
	UTTARAKHAND	ALMORA	7	7	5	225
	UTTARAKHAND	GARHWAL	8	6	9	247
	UTTARAKHAND	CHAMPAWAT	9	10	6	364
	UTTARAKHAND	DEHRA DUN	10	9	11	543
29	UTTARAKHAND	NAINITAL	11	11	10	582
	UTTARAKHAND	HARIDWAR	12	12	12	631
	UTTARAKHAND	UDHAMSINGH NAGAR	13	13	13	656
	WEST BENGAL	WEST MEDINIPUR	1	1	5	99
29	WEST BENGAL	PURULIA	2	2	1	103
	WEST BENGAL	JALPAIGURI	3	5	10	266
	WEST BENGAL	SOUTH 24 PARGANAS	4	6	8	280

**PRIORITIZATION OF DISTRICTS FOR DEVELOPMENT PLANNING IN INDIA**

Sl. No.	STATE	DISTRICT	State Ranking			National CI Rank
			CI	NRI	ILI	
WEST BENGAL	DARJEELING	5	4	15	295	
	COOCH BEHAR	6	8	4	310	
	EAST MEDINIPUR	7	3	18	317	
	MURSHIDABAD	8	7	11	329	
	SOUTH DINAJPUR	9	9	2	346	
	NADIA	10	11	6	371	
	MALDA	11	10	12	394	
	BANKURA	12	14	7	432	
	ALIPURDUAR	13	15	9	476	
	PASCHIM BARDHAMAN	14	12	17	502	
	NORTH 24 PARGANAS	15	17	14	523	
	NORTH DINAJPUR	16	20	3	536	
	BIRBHUM	17	18	13	541	
	HOWRAH	18	13	20	571	
	HOOGHLY	19	16	19	572	
	KALIMPONG	20	19	16	585	

**APPENDIX -I****Immediate  
Time-Bound**

**F.No. 2-1/2017-NRAA  
Government of India  
Ministry of Agriculture & Farmers Welfare  
Department of Agriculture, Cooperation & Farmers Welfare  
(National Rainfed Area Authority)**

NASC Complex, 2<sup>nd</sup> Floor,  
DPS Marg, Pusa, New Delhi  
Dated 26<sup>th</sup> December, 2018

**ORDER**

In pursuance of a decision taken in the Brainstorming Workshop on "Prioritization of Rainfed Districts in India" organized by NRAA, DAC&FW; and ICAR-CRIDA from 11-12<sup>th</sup> December, 2018, Task Force with following composition is hereby constituted to take forward the deliberations for conclusive deliverables:-

- |       |  |                   |
|-------|--|-------------------|
| i.    | Dr. B. Venkateswarlu, Former VC,<br>Vasant Rao Naik Marathwada, Krishi Vidyapith, Parbhani | - Chairman        |
| ii.   | Dr. C.S. Murthy, Head Agriculture Division, NRSC   | - Member          |
| iii.  | Dr. Shibendhu S. Roy, Director, MNCFC  | - Member          |
| iv.   | Shri Sandeep Ranjan, Director, CWC   | - Member          |
| v.    | Dr. G. Ravindra Chary, Director I/C, CRIDA   | - Member          |
| vi.   | Dr. K.V. Rao, Principal Scientist, CRIDA   | - Member          |
| vii.  | Dr. B.M.K. Raju, Principal Scientist, CRIDA  | - Member          |
| viii. | Dr. C.A. Rama Rao, Principal Scientist, CRIDA  | - Member          |
| ix.   | Shri. B. Rath, Technical Expert (WM), NRAA   | -Member Secretary |

2. The terms of the reference of the Task Force shall be as under:-

- (i) To suggest clear definition of rainfed areas with acceptable dimensions to different user agencies;
- (ii) To finalize the Natural Resource Index (NRI) and Integrated Livelihood Index (ILI) parameters and the process of aggregation for deliberation of rainfed districts and prioritization;
- (iii) To suggest template for generating important data base pertaining to rainfed agriculture for use by both central and state level agencies;
- (iv) To suggest an institutional mechanism with a consortium of national agencies to periodically generate dynamic information system for rainfed districts.
- (v) To reorder 150 districts identified as vulnerable based on revisited RAPI parameters and reorganization of districts, to also suggest 50 of these most critically drought prone districts for first phase drought proofing interventions.
- (vi) To study and suggest any other related issue as felt appropriate by the Committee.

3. The Task Force will submit its report to CEO, NRAA within a period of three months from a date of issue of this order.

4. A copy of the deliberations held in the said Brainstorming Workshop is also enclosed.

  
(B Rath)  
Technical Expert (WM)

To

All Members of the Task Force.

Copy to:

- (i) Secretary, DAC&FW, Krishi Bhawan, New Delhi
- (ii) Secretary & DG, DARE, Krishi Bhawan, New Delhi
- (iii) Secretary, Ministry of Water Resources, River Development & Ganga Rejuvenation.
- (iv) Chairman & Ex-officio Secretary, Central Water Commission, New Delhi
- (v) CEO, NRAA, New Delhi
- (vi) AS (RFS), DAC&FW, Krishi Bhawan, New Delhi
- (vii) JS (RFS), DAC&FW, Krishi Bhawan, New Delhi

## SUBMISSION CERTIFICATE

The National Rainfed Area Authority constituted a Task Force vide office order on 26<sup>th</sup> Dec 2018. The terms of reference of the task force include (a) to suggest clear definition of rainfed area with acceptable dimensions to different user agencies, (b) to finalise the Natural Resource Index (NRI) and Integrated Livelihood Index (ILI) parameters and the process of aggregation for Prioritization of rainfed districts, (c) to suggest a template for collection of data and maintenance of centralized database on rainfed agriculture for use by both central and state level agencies, (d) to suggest an institutional mechanism with consortium of national agencies to periodically generate dynamic information system for rainfed districts and (e) to reorder 150 districts identified as vulnerable based on revisited RAPI and reorganization of districts; and to suggest 50 of these most critically drought prone districts for first phase drought proofing interventions.

The Task Force deliberated at length upon various issues with reference to terms of reference in different meetings and in workshop attended by various stakeholders representing scientific community, as also policy makers. During the process of finalization of methodology for prioritization, various databases available at various levels - central, state governments, banking institutions etc. were examined in detail and parameters chosen where sufficient data was available. It was yet realised that there were several gaps in the availability of some datasets, especially for parameters of livelihood at district level.

Some suggestions have been made on generation of datasets on various parameters which would be helpful for better informed policy making with respect to rainfed agriculture. We hope that the report would be found useful while formulation and implementation of developmental schemes by various ministries.

**Dr G Ravindra Chary**  
(Member)

**Dr KV Rao**  
(Member)

**Dr BMK Raju**  
(Member)

**Dr CA Rama Rao**  
(Member)

**Dr Shibendu S Ray**  
(Member)

**Dr CS Murthy**  
(Member)

**Sri Sandeep Ranjan**  
(Member)

**Sri B Rath**  
(Member- Secretary)

**Dr B Venkateswarlu**  
(Chairman)

## List of Abbreviations

ACU	Adult Cattle Unit
ACZ	Agro Climatic Zone
AER	Agro Ecological Region
AESR	Agro Ecological Sub-Region
AEZ	Agro Ecological Zone
AR	Assessment Report
AWC	Available Water Content
BPL	Below Poverty Line
CGWB	Central Ground Water Board
CI	Composite Index
CMIP-5	Coupled Model Inter-comparison Project -5
CRIDA	Central Research Institute for Dryland Agriculture
DACFW	Department of Agriculture, Cooperation and Farmers' Welfare
DACNET	An IT application developed by DACFW in collaboration with National Informatics Centre (NIC) for agricultural informatics and communication
DAHD	Department of Animal Husbandry and Dairying
DDP	District Domestic Product
DES	Directorate of Economics and Statistics
DIP	District Irrigation Plan
DPAP	Drought Prone Area Program
FAI	Fertilizer Association of India
FCI	Food Corporation of India
GCF	Green Climate Fund
GDP	Gross Domestic Product
GoI	Government of India
GSA	Gross Sown Area
GVA	Gross Value added
Ha	Hectare

IASRI	Indian Agricultural Statistics Research Institute
IBRD	International Bank for Reconstruction and Development
ICAR	Indian Council of Agricultural Research
IF's	Integrated farming systems
ILI	Integrated Livelihood Index
IMD	India Meteorological Department
IPCC	Intergovernmental Panel on Climate Change
ISRO	Indian Space Research Organisation
IWMP	Integrated Watershed Management Program
KASAM	Kandhamal Apex Spices Association for marketing
Max	Maximum
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MI	Moisture Index
Min	Minimum
mm	Millimetre
MNCFC	Mahalanobis National Crop Forecast Centre
MoA & FW	Ministry of Agriculture and Farmers Welfare
MoEF & CC	Ministry of Environment, Forest and Climate Change
MoRD	Ministry of Rural Development
MoTW	Ministry of Tribal Welfare
MoWR	Ministry of Water Resources
NABARD	National Bank for Agriculture and Rural Development
NAPCC	National Action Plan on Climate Change
NARES	National Agricultural Research and Education System
NARP	National Agricultural Research Project
NATP	National Agricultural Technology Program
NBM	National Bamboo Mission
NBSS&LUP	National Bureau of Soil Survey and Land Use Planning
NDVI	Normalized Difference Vegetation Index
NGO's	Non-Governmental Organisations
NIA	Net Irrigated Area

NPK	Nitrogen, Phosphorus and Potassium
NRAA	National Rainfed Area Authority
NRI	Natural Resource Index
NRM	Natural Resource Management
NRSC	National Remote Sensing Centre
NSA	Net Sown Area
NWDPRA	National Watershed Development Project for Rainfed Areas
P	Precipitation
PCA	Principal Component Analysis
PCI	Per Capita Income
PE	Potential Evapotranspiration
PHC	Primary Health Centre
PHS	Primary Health Sub-Centre
PLCP	Potential Linked Credit Plan
PMKSY	Pradhan Mantri Krishi Sinchay Yojana
PR	Panchayat Raj
RADAR	Rainfed Area Data Repository
RAPI	Rainfed Areas Prioritization Index
RBI	Reserve Bank of India
RCP	Representative Concentration Pathway
RWBCIS	Restructured Weather Based Crop Insurance Scheme
SAUs	State Agricultural Universities
SC	Scheduled Caste
SHG	Self-Help Group
SRTM	Shuttle Radar Topography Mission
ST	Scheduled Tribe
ToR	Terms of Reference
TSP	Tribal Sub Plan
UTs	Union Territory
WUAs	Water User Associations



**National Rainfed Area Authority (NRAA)**  
Department of Agriculture, Cooperation & Farmers Welfare  
Ministry of Agriculture & Farmers Welfare

JULY 2020