AGRICULTURAL PRODUCTIVITY IN EASTERN INDIA

VOLUME I



REPORT OF THE
COMMITTEE ON AGRICULTURAL
PRODUCTIVITY IN EASTERN INDIA
RESERVE BANK OF INDIA
1984

Price { Inland Rs. 70 (postage free) Foreign US \$ 20 (postage free)

Published by K. R. Holla, Secretary, Committee on Agricultural Productivity in Eastern India, for the Reserve Bank of India, Bombay-400 023 and printed by Girish Shah at PRINTRITE, 24B Ambalal Doshi Marg, Raja Bahadur Compound, Bombay-400 023.

Chairman

S. R. Sen

Members

S. K. Mukherjee Pradhan Hari Shankar Prasad K. Ramamurthy

Harbans Singh

Secretary

K. R. Holla

FOREWORD

The Reserve Bank of India has now completed 50 years. During this period, the range of its functions has steadily extended from traditional central banking to active promotion of national objectives of accelerating growth with stability, furthering social justice and reducing inter-regional disparities. Considering the crucial role of agriculture in the growth of the economy, improvement of agricultural productivity and credit support for agriculture have been important objectives of the Bank's policy.

Experience has shown that reduction of regional disparities in the levels of development often requires adoption of different strategies for different regions. One region which has been engaging the special attention of national authorities including the Reserve Bank is Eastern India.

Eastern India comprising West Bengal, Orissa, Bihar and East U.P. is endowed with rich natural and human resources for development. At one time, the region's agricultural productivity was high, but has been falling in recent years. The growth in agricultural productivity particularly in the last two and a half decades has been modest and well below the attainable levels considering the region's large potential. In view of this, the Reserve Bank, jointly with National Bank for Agriculture and Rural Development appointed a Committee, with Dr. S. R. Sen, Chairman, International Food Policy Research Institute and member of the Commission on Centre-State Relations, as Chairman, to make a detailed study of the constraints on improving agricultural productivity in this region and suggest remedial measures, with particular reference to credit and investment, to achieve as much of the potential as possible by the end of the present decade. The Committee comprised the following members: Dr. S. K. Mukherjee, member, State Planning Board, Government of West Bengal, Dr. Pradhan Hari Shankar Prasad, Professor of Economics, A. N. Sinha Institute of Social Studies, Patna, Shri K. Ramamurthy, member, Board of Revenue, Government of Orissa, Cuttack* and Shri Harbans Singh, Agricultural Production Commissioner, Government of India. The Committee submitted its Report on December 31, 1984.

^{*} Retired from Government service from June 30, 1984.

⁺ Retired from Government service from October 31, 1984.

The Committee in its Report has made a number of useful recommendations. The Report has pointed out that accelerated agricultural development in the region has to be spearheaded by massive provision of tubewells and pumpsets, improvement in drainage, water management techniques, research and extension, power, custom services and postharvest arrangements for storage and marketing. It has highlighted the need for improving productivity per hectare and per cultivator, especially in the case of small and marginal farmers through sciencebased and industry-linked farming technology. It has urged the promotion of cultivation of HYV crops and high value crops through the adoption of labour-cum-capital intensive techniques by small and marginal farmers and provision of improved custom services through the setting up of leasing agencies. It has drawn attention to the need for reorganisation and strengthening of the credit structure, for which it has suggested a number of measures. The Report points out that the region is near the threshold of accelerated progress, but it would be necessary to give it a "big push" in terms of substantial public investment, credit support from the banking system and, more importantly, efficient management. The Committee is of the opinion that, if its recommendations are effectively implemented, it should be possible for the region to achieve an annual compound growth rate of at least 5 per cent in agricultural production during the next 10 years.

The Committee has produced a very valuable Report. I have no doubt the recommendations made by it will have a far reaching impact on the formulation and implementation of agricultural policies for the region in the coming years. We owe a special debt of gratitude to Dr. S. R. Sen and his colleagues for the high quality of work that has gone into the preparation of the Report.

I am happy that this Report is being published in the Golden Jubilee year of the Reserve Bank. It is hoped that it will be widely read and warmly welcomed by planners and policy makers and the valuable recommendations made by the Committee will become an important input in the plan of action to improve agricultural productivity of the eastern region of the country.

Reserve Bank of India Bombay May 27, 1985.

In malhotiz

GOVERNOR

CONTENTS

VOLUME I

PART I

EASTERN INDIA

								Page
•	Foreword	•••	··· .	•••	•••	***		v
	Abbreviations	•••	•••	•••	•••	,	•••	ix
1.	Introduction	′	•••	•••		•••.	•••	1
2.	An Overview	•••	•••	•••	•••	•••	•••	19
3.	Trends in Agricultural	Develo	opment		•••	•••	•••	30
4.	General Constraints to	Agricul	ltural G	rowth	•••	•••		68
5.	Strategy for Accelerating	ıg Agri	icultura	l Grow	th.	.***	•••	76
6.	Prospects for Accelerat	ing Ag	gricultu	ral Gro	owth	•••		84
7.	Management and Organ	nisation	ı	•••	•••	***		94
8.	Land and Farm Policy		•••	•••	•••	•••		106
· 9.	Irrigation, Drainage and	d Wate	r Man	agemen	it	•••	•••	121
10.	Input Supply	•••	•••	•••	•••	•••	•••	140
11.	Agricultural Research,	Extens	ion and	1 Trair	ing.	•••	•••	152
12.	Marketing Development	•	•••	•••	•••	•••	•••	172
13.	Agricultural Developme	nt in T	ribal A	reas		•••	•••	184
14.	Animal Husbandry and	Fisher	ry Deve	elopme	nt	•••	•••	199
15.	Credit Policy	•••	•••	•••	•••	•••	··· .	212
16.	Investment and Credit	Requir	ements	•	•••	•••	•••	245
17.	Conclusion	•••	•	•••	•••	•••	•••	257

APPENDICES

	· · · · · · · · · · · · · · · · · · ·	Page
i.	RBI Memorandum dated March 10, 1983 on the Setting up of the Committee on Agricultural Productivity in Eastern India	263
	Eastern India	205
2	Terms of Reference of the Working Groups	265
3	List of Persons met by the Committee	268
4.	List of Persons who Submitted Notes to the Committee	276
5.	The Andhra Pradesh Irrigation Utilisation and Area Development Act, 1984 — Relevant Extracts	279
6.	The West Bengal Inland Fisheries Act, 1984 — Relevant Extracts	299
7,	Report of the National Commission on Agriculture (Final . Report) — Relevant Recommendations	303
8.	Report of the National Committee on the Development of Backward Areas, on Drought-Prone Areas and Desert Areas — Relevant Recommendations	318
9.	Report of the National Committee on the Development of Backward Areas on Chronically Flood Affected Areas — Relevant Recommendations	346
10.	Report of the Irrigation Commission 1972 — Relevant Recommendations	352
11.	Report of the Rashtriya Barh Ayog (National Commission on Floods) — Relevant Recommendations	367
12.	Report of the Committee on Forestry for Alleviation of Property, 1984 — Relevant Recommendations	372
13.	Report of the Group on Perishable Agricultural Commodities, May, 1981 — Relevant Recommendations	378
	SUBJECT INDEX	387

Subject Index

Page A	Page
Agriculture-resource base Agrarian structure 30 32, 33, 69, 70	- Poultry development 203, 204 - Research findings 200, 201, 210
- Agro-climatic zones 31 - Irrigation 33-35	— Sheep development , 204
 Land use pattern Physical resources 31, 32 30, 31 	В
Agricultural development	Bio-fertilizers 144 Blue green algae (BGA) 170
in tribal areas 118, 184 — Major constraints 185-188	Budgetary allocations for agriculture 102, 103
- Special features of tribal areas 184, 185	Business organizations 101
Strategy for agricultural development in tribal	. c
areas 188-196 Agricultural growth rate 19, 90-93	Central Institute for
- Cropping intensity 37, 38, 86	Agricultural Engineering
— New policies and action programmes — need for 26	Research 159 Central Institute for
Agricultural production and	Small Tools 116
productivity trends 35-37 — Commodity-wise review 38-47	Central Scheme for control of soil erosion 111
Agricultural research, extension and training 72-74, 79, 80,	Centrally Sponsored Schemes 123, 124, 248, 249
152, 160, 161	— Dugwells 127
- Existing infrastructure 152, 153	— Tubewell bores 123, 124 Committee on Agricultural
- Farmers' training 165, 166 - Improved implements	Productivity in Eastern India 2, 3, 263
and machinery 158, 159	- Composition 3, 263
 Needs of resource-poor farmers 	 Scope of the Report Terms of reference of
National Agricultural Research Project 153	the Committee 2, 264 — Working groups
- Research efforts needed 155-157	appointed by the
- Research in IRRI 169-171 - Results of research	Committee 6, 265-267 Consolidation of holdings 107
available on shelf 159, 160 — Specific research	Constraints to agricul- tural growth 68
problems 153-155	 Administrative inefficiency Main constraints 69
— Supplementary extension services 164, 165	— Organizational constraints 73, 74
— Training and visit system 160-163	- Social and structural constraints 69-71
Agricultural Universities and research institutes 7	Technological constraints 71-73
Agricultural servicing	Compact area development 123
agencies 81 Agro-forestry 111	Co-operatives 98, 99 Co-operative farming 106
Agro-Industries Corporations 95, 96 Agro-service centres 117	Coordination 101, 166-168 — Inter-departmental
Animal husbandry 199, 200	coordination 101, 102
 Dairy development Goat development 201-203 205 	Coordination between research and extension 166-168
- Piggery development 205	Credit policy 192-194, 212-234

•	Page	Page
	_	G ·
— Deposit mobilisation	220, 221 231	G ,
Credit extensionCredit obligations	219, 220	Government functionaries 95
- Improving overdues	217, 220	Grameen banks of
climate	224, 225	Bangladesh 238, 239
— Interest rate structure	221, 222	Green Revolution 1
- Organizational	225 220	· H
- Policy measures to	225-229	
reduce overdues	222-224	Horticulture Marketing and
 Recommendations 		Processing Company 179
regarding		Hydrams 135
— commercial banks	220	High value crops 111-115
and RRBs — insurance	230 232, 233	High yielding varieties of crops 48, 111-115
— medium and long-	232, 233	01 010ps 40, 111 110
term loans	217-219	I
— short-term loans	214-217	
— subsidy	232	Industry-linkages with 117, 118
 Role of NABARD Simplification of 	233	Inputs 48, 140 Investment and credit
procedures	231, 232	requirements 245
- Single-window		- Investment in agriculture
approach	227	and allied services 245
- Staff development	228	- Investment on major and
 Sub-committee on overdues 	225	medium irrigation 246
— Training	231	- Investment on minor irrigation 246-249
Credit trends	48-55	- Investment on drainage 250, 251
Crop planning	109-111	— Investment on rural
D	-	electrification 252
Diesel supply	96, 97	Investment on rural industry centres 253
Dieser suppry	90, 91	industry centres 253 — Medium and long-term
E		credit loans 255
101		- Short-term credit
Electricity — Economy in use of	89	loans 253, 254
electricity	128	K
- Electric power	96, 97	N
— Supply and		Kolhapur weirs 135
requirements of	89 , 90	
F		· L
		Land and farm policy 106-118
Farm clinics 2	31, 240-244	Leasing agencies/
Farmer groups	107, 108	companies 116, 117, 126, 127
Farm machinery and implements	72 116 117	Large-sized adivasi
Failed well compensa-	73, 115-117	multi-purpose
tion scheme	127, 128	societies 55, 192-194, 227, 228 Land development banks 50, 51
Fertilizers 48, 8	88, 142, 143	Land development banks 50, 51
risheries development	205	M .
 Inland fisheries Leasing policy 	206 207	Mana
- Marine fisheries	207 206	Management and
 Marketing infrastructure 	208	organization 94-105 Marketing development 172, 194, 195
— Renovation of ponds		- Cold storages 183
and lakes — Research findings	206	— Co-operative marketing 175-177
Floor limit for	208, 211	 Demand constraints 172
operational holdings	108, 109	 Marketing infrastructure Perishable commodities 173 178
-	,	— registrable commodities 178

	Page	•	Page
 Public distribution Storage 	177 182	Soil testing Special development	143
- Transport	181	programmes	56-60
- Watch groups	. 175		_: 60
Monitoring and evaluation	104,168	— Command Area Develop-	
-		ment Programme	56
N ·	•	- Compact Area Programme	58, 59
		— Comprehensive Area	
National Bank for		Development Programme	59
Agriculture and Rural	5 55 555	— Development of oilseeds	56, 57
Development	2, 55, 233	- Drought-prone Area	£7 £0
National Horticulture Board	100	Programme	57, 58
Doard	180	 Dryland agriculture Economic Rehabilitation 	59
O		of Rural Poor	59
0		- Intensive Pulses	39
Operation Barga	33	Development Programme	57
Organic farming	145, 149-151	- Integrated Rural	3,
0.8	1.0, 1.7 101	Development Programme	57
P		- Special programme for	•
_		increasing rice production	<i>5</i> 8
Panchayat Samities	97, 98	— Special programme for	
Pesticides	144, 145	small and marginal	
Population	30	farmers	57
Primary agricultural		Standing Committees	103, 104
credit societies 4	9, 50, 226, 227	Strategy for accelerating	
_		agricultural growth	76
R		- Appropriate technology	5 / 85
Desired Desired Desire	E4 EE 220	for Eastern India	76, 77
Regional Rural Banks	54, 55, 230	— Credit	80
Report of the Committee		 Diversification in crop pattern 	80, 81
on forestry programmes for alleviation of		- Extension	79, 80
poverty	195, 372-377	- Land management	77, 00
Report of the Group on	1,0,0.201.	— Organization and	• • •
Perishable Agricultural		management	81
Commodities	378-385	— Policy measures	81-83
Report of the Irrigation		— Price support and	
Commission ·	352-366	marketing	80
Report of the National		- Spearheads for	
Commission on Agricult	ture 303-317	accelerating agri-	
Report of the National	267 271	cultural growth	78 ₁₎ 79
Commission on Floods	367-371	— Strategy for small and	112-115
Report of the National Committee on Develop-		marginal farmers	112-113
ment of Backward Areas	e	_	
— Chronically flood	•	T	
affected areas	346-351	T	•00
- Drought-prone and		Tenancy reform	108
desert areas	318-345		
Report of the Working		v	
Group for evolving		Vigilance	145
scientific method of		Vikas Volunteer Vahini	231
assessing crop_yields	235-237		, 196-198
Rural Industry Centres	183, 253	7 0.01.11.1.3 0.7 Emiliantions 77-101	, 170-170
S		\mathbf{w}	
E. d.	140-142	Water Management	121
Seeds Sequencing of actions	102	- Artesian wells	133
Social and farm forestry	195	- Centrally sponsored	
Soils	31, 111	schemes	123
UVID			

-	Page		Page
- Compact Area		- Leasing Agencies	126
Development	123	 Micro-watershed 	•
- Conjunctive use of		development	135, 136
surface and groundwater	134	 Reservoir management 	133
— Cyclones	139	— River lifts	134, 135
- Deep tubewells	128-130	— Sale and hiring	•
— Diesel Pumpsets	125	of pumpsets	126
	250, 251	 Surface irrigation 	130
- Economy in use of		— Tank irrigation	134
groundwater	128	— Warabandi	131
- Electric pumpsets	125	— Waterlogging	35, 136, 137
- Field channels	131	 Water releases 	130, 131
- Flood control	138	- Water rates	,
- Groundwater			130, 132, 133
exploitation	122, 123	Women — role of	192