UNITED NATIONS RESEARCH INSTITUTE FOR SOCIAL DEVELOPMENT

DP 62

GENDER, ENVIRONMENT AND POVERTY INTERLINKS IN RURAL INDIA

REGIONAL VARIATIONS AND TEMPORAL SHIFTS, 1971-1991

by Bina Agarwal*

UNRISD Discussion Papers are preliminary documents circulated in a limited number of copies to stimulate discussion and critical comment.

^{*}Professor of Economics, Institute of Economic Growth, University of Delhi, India

The United Nations Research Institute for Social Development (UNRISD) is an autonomous agency that engages in multi-disciplinary research on the social dimensions of contemporary problems affecting development. Its work is guided by the conviction that, for effective development policies to be formulated, an understanding of the social and political context is crucial. The Institute attempts to provide governments, development agencies, grassroots organizations and scholars with a better understanding of how development policies and processes of economic, social and environmental change affect different social groups. Working through an extensive network of national research centres, UNRISD aims to promote original research and strengthen research capacity in developing countries.

Current research themes include Crisis, Adjustment and Social Change; Socio-Economic and Political Consequences of the International Trade in Illicit Drugs; Environment, Sustainable Development and Social Change; Integrating Gender into Development Policy; Participation and Changes in Property Relations in Communist and Post-Communist Societies; and Political Violence and Social Movements. UNRISD research projects focused on the 1995 World Summit for Social Development include Rethinking Social Development in the 1990s; Economic Restructuring and Social Policy; Ethnic Diversity and Public Policies; and The Challenge of Rebuilding War-torn Societies.

A list of the Institute's free and priced publications can be obtained from the Reference Centre.

United Nations Research Institute for Social Development Palais des Nations 1211 Geneva 10 Switzerland

(41.22) 798.84.00/798.58.50 Fax (41.22) 740.07.91

Note: The paging of the electronic version of this article may vary from the printed source.

ISSN: 1012-6511

Copyright © United Nations Research Institute for Social Development (UNRISD). Short extracts from this publication may be reproduced unaltered without authorization on condition that the source is indicated. For rights of reproduction or translation, application should be made to UNRISD, Palais des Nations, 1211 Geneva 10, Switzerland. UNRISD welcomes such applications.

The designations employed in this publication, which are in conformity with United Nations practice, and the presentation of material herein do not imply the expression of any opinion whatsoever on the part of the United Nations Research Institute for Social Development concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by UNRISD of the opinions expressed in them.

Preface

This paper analyses the interrelationships between gender, poverty and environmental change in rural India, focusing especially on variations across regions and shifts over time during the past two decades. After briefly identifying the major factors leading to environmental degradation, it traces why and how this degradation and the appropriation of natural resources by the state (statization), and by a minority of individuals (privatization), tend to have particularly adverse implications for the female members of poor rural households. Regional variations and temporal shifts in the intensity of these effects are traced both descriptively and through the specification of an index, termed by the author the GEP index, for measuring gender-environment-poverty vulnerability. Governmental and community-initiated responses to environmental degradation and natural resource appropriation are also examined, and the necessity of gender-directed policies highlighted.

Among the adverse class-gender effects noted in the paper are an increase among poor rural households in women's and female children's time and energy spent in fuel, fodder, and water collection; a decrease in women's incomes from non-timber forest products and agriculture; an adverse effect on the health and nutrition of household members in general, and female members in particular; an erosion of social support networks built by women to tide the household over economic crises; and a marginalization and decline in peasant women's traditional knowledge of plants and species.

The gender specificity of these effects is seen to arise from pre-existing gender inequalities in, especially, the division of labour; the intra-household distribution of subsistence resources; access to productive resources, other assets, and income-earning opportunities; and participation in public decision-making forums.

However, the noted effects vary in form and intensity across India, due to geographic differences in gender bias, in environmental risk, and in poverty incidence. Rural women are worst-off in regions where all three forms of disadvantage are strong and reinforce each other, as in many parts of northern India, and especially Bihar. They are best-off where all three types of disadvantage are weak, as in southern and northeast India, and especially Kerala. Other regions fall in between.

The author asserts that regions of high gender-environment-poverty vulnerability warrant special attention in terms of schemes which give poor women greater control over economic resources in general, and common property resources in particular. Women's active participation in forest protection and wasteland development schemes is especially important not only for improving family welfare, but also for ensuring scheme success, promoting gender equity, enlarging local knowledge systems, increasing women's participation in public decision making bodies, enhancing women's bargaining power both within and outside the household, and contributing to their overall empowerment.

April 1995 Dharam Ghai Director

◆ Contents

INTRODUCTION		1
I. AN OVERVIEW OF INTERLINKS 1		
◆(1) Environmental Degradation and Forms of Appropriation		1
(a) Forms of environmental degradation		2
(b) The process of statization		2
(c) The process of privatization		3
(d) The erosion of community management systems		4
(e) Population growth		5
(f) Consumption patterns		7
(g) Choice of agricultural technology and erosion of local		7
knowledge systems		7
◆(2) Implications: Class-Gender Effects		8
(a) The specificity of class and gender		8
(b) The effects		11
On time		11
On income		12
On nutrition On health		13 13
On social support networks		14
On indigenous knowledge systems		14
II. REGIONAL VARIATION IN GENDER INEQUALITIES, ENVIRONMENTAL DISADVANTAGE AND POVERTY INCIDENCE	15	
◆(1) Regional Variations in Gender Inequalities		15
(a) Sex ratio	16	
(b) Rural female labour force participation rate (RFLFPR)	18	
(c) Rural female literacy rate (RFLR)	19	
(d) Access to property, especially arable land (e) Rural total fertility rate (RTFR)		21 21
◆(2) Regional Variations in Environmental Disadvantage	23	
(a) Normal rainfall levels		23
(b) Per cent area under forest		24
◆(3) Regional Variations in Poverty Incidence		25

III. THE GEP INDICES:		
MEASURING GENDER-ENVIRONMENT-POVERTY VULNERABILITY CROSS-REGIONALLY AND INTERTEMPORALLY		
(1) Colortion of Northead		
•(1) Selection of Indicators	26	
◆(2) Computation Method	27	
◆(3) Results	28	
(a) Extent of gender-environment-poverty (GEP) vulne in 1971 and 1991	28	
<i>(b) Intertemporal shifts in indices (c) The consolidated indices</i>	31 31	
IV. RESPONSES	34	
V. IN CONCLUSION	37	
◆ Appendix Note: GEP Indices: Computation Method		
and Data Sources	41	
◆ Appendix Tables	43	
◆ References	45	

◆ List of Tables and Maps

Tables

(1) General tables:

Table 1 Distribution of village common land to individual households in different regions

Table 2 Average annual income derived from village commons by poor and nonpoor households in different regions, 1982-1985

Table 3 Time taken and distance travelled for firewood collection in different regions

Table 4 Indicators of gender, environment and poverty vulnerability

(2) GEP indices

Table 5a	GEP(V) indices 1991
Table 5b	GEP(V) indices 1971
Table 5c	States falling in different ranges of GEP(V) indices in 1971 and 1991
Table 6 Interter	mporal shifts over 1971-1991: States falling in different ranges of GEP(VT) indices
Table 7a	States falling in different ranges of GEP(VC) consolidated indices, 1971 and 1991
Table 7b	States falling in different ranges of G, E, P and GEP(VC) consolidated indices, 1991
Table 7c	Intertemporal shifts in consolidated indices over 1971-1991: States falling in different ranges of G(T), E(T), P(T) and GEP(VCT)
Appendix table Appendix table	

GEP(VC) consolidated indices, 1971 and 1991

and GEP(VCT) consolidated indices

Intertemporal shifts over 1971-1991 in G(T), E(T), P(T)

Maps

Appendix table 3

Appendix table 4

Map 2 Rural female labour force participation rates (1981)

Map 3 Rural female literacy rates (1991)

Map 4 Rural total fertility rates (1988)

Map 5 Normal rainfall levels (1989)

Map 6 Per cent area under forest (1987-1989)

Map 7 Per cent rural non-poor (1987-1988)

Map 8 GEP(V) 2b index (1991)

Map 9 GEP(VC) 2b index (1991)

◆ Abbreviations and Acronyms

FSI Forest Survey of India J & K Jammu and Kashmir

NGO non-governmental organization
NRSA National Remote Sensing Agency

NTFP non-timber forest produce

RFLFPR rural female labour force participation rate

RFLR rural female literacy rate

RLFPR rural labour force participation rate

RLR rural literacy rate RTFR rural total fertility rate

UP Uttar Pradesh VC village commons

Acknowledgements

This is a revised and shortened version of a paper prepared for the World Resources Institute (Washington, D.C.) in 1994, as part of its "Second India Study Revisited" project. I am grateful to the participants of two workshops organized in connection with the project for their responses. At the Institute of Economic Growth I would like to thank Anita Kumari and the staff of the computer unit for their assistance. I also thank Dharam Ghai and the two anonymous reviewers of UNRISD for their constructive suggestions.



https://www.yunbaogao.cn/report/index/report?reportId=5_21660



