

SSR REPORT (revised)

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QUARTER

YEAR 4

SHORT TITLE: Poverty Traps and Public Policy

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ORGANISATION: AUSTRALIAN NATIONAL UNIVERSITY

PROJECT START DATE: April 1, 2002, END DATE: June 30, 2006.

MAIN ACTIVITIES DURING YEAR:

The following papers have been written during this year. Their titles and abstracts follow. The full texts of the papers are being emailed separately.

1. Poverty Nutrition Trap in Rural India (Authors R. Jha, R. Gaiha and A. Sharma)

ABSTRACT

The contributions of the present report are as follows. Using data for rural India we test for the existence of a PNT in the case of two macronutrients – calories and protein - and select micronutrients (calcium, carotene, iron, riboflavin and thiamine) separately and for each category of wages – sowing, harvesting, and other – and for male and female workers separately. We use robust sample selection procedures to arrive at consistent estimates. It is discovered that the PNT exists in a number of cases. The paper also advances a number of policy conclusions from the analysis.

2. On Modelling Variety in Consumption Expenditure on Food (Authors R. Jha, R. Gaiha and A. Sharma)

ABSTRACT

In the present paper we compute nutrient-expenditure elasticities for two macro nutrients (calories and protein) and five micro nutrients (calcium, thiamine, riboflavin, calcium and iron). We show that in each case the respective elasticities are positive and significant. This lends support to our hypothesis that, in contrast to the results of Behrman and Deolalikar (1987), an increase in income would increase nutrient intake. We then compute difference in the elasticity of substitution for rich and poor across commodity groups (along the lines of Behrman and Deolalkar (1989)) and show that this difference, while significant, is small. This further corroborates our conclusion that increases in income would lead to nutrient intake.

3. Curvature in Slutsky Matrix: Estimates from Rural India (Authors R. Jha, R. Gaiha and A. Sharma)

ABSTRACT

The motivation in this paper is to understand the nutritional impact of food price changes with large numbers suffering protein-calorie deficiency. In India, it has been reported that during the 1990s cereal consumption declined while non-cereal consumption increased. Whether this shift in consumption is a result of changes in relative prices is the focus of this analysis. In this paper we work with four food groups: wheat, rice, pulses and milk. The coefficients on income for all substitution elasticities except the one of rice with milk are significant. In all cases except milk with respect to other commodities these are positive as well. Thus with rise in income households are better able to substitute all commodities except milk with other commodities. On the other hand, the substitution elasticity of milk with respect to other commodities drops with income.

4. Opening the Black Box of Individual Labour Supply: Is Individual Behaviour Asymmetric for Rural India? (Author K. Sinha)

ABSTRACT

The aim of this paper is to study the effect of nutrition on labour supply behaviour of males and females in rural India both theoretically and empirically. Research concerning nutrition-wage relationship concentrates on linkages between the two. Wage is found not to be directly related to nutrition, it is related through productivity (in terms of labour supply). The relationship between productivity and nutrition in developing countries has not been adequately explored (Strauss & Thomas 1998). The analysis in this chapter is carried out in two parts. In the first part we start by modelling labour supply behaviour of an individual. On basis of the reduced form equations obtained empirical analysis is done wherein labour supply for males and females are estimated. Our primary interest lies in tracing the effect of nutrition on labour supply behaviour of married males and females.

5. Opening the Black Box of Household Labour Supply: Is Household Behaviour Unitary or Collective? (Author K. Sinha)

ABSTRACT

In this paper we move from the realm of labour supply behaviour of a single individual to their behaviour when they are a part of a household. As modelling household labour supply is in itself a vast field, first we discuss relevant models suggested in the literature i.e., the unitary models and collective models of labour supply. Second, we estimate the unitary and collective models of household labour supply for rural India and test as to which models suits labour supply behaviour of rural Indian households. The impact of distribution factors a la Chiappori et al. (2002) are also incorporated in the analysis for rural Indian households.

6. Local public goods in a democracy: Theory and evidence from rural India (Authors: S. Gupta and R. Jha)

ABSTRACT

One of the key determinants of poverty and nutritional status in Indian villages is the availability of infrastructure and other local public goods. At the village level this provision is made by a high level of government so a study of the preferences of the government with respect to infrastructure provision is critical to understanding the

availability of such local public goods at the village level. This paper examines allocation of local public goods over jurisdictions (villages) with individuals with identical tastes and different incomes, in a model with democratic institutions and majority rule. The median voter (in income) in each jurisdiction determines the probability of re-election for the incumbent government. The jurisdiction with the median of these median voters is most favoured. With identical median voters in jurisdictions, and with re-election requiring less than 50% of the mandate, jurisdictions with higher income inequality get favoured. Results from a survey data (from NCAER) on infrastructure provision in over 1600 Indian villages confirm this hypothesis. Ethnic fragmentation does not affect public good provision but political fragmentation does. Finally, villages with the median population are the most favoured for public goods allocation. Sparsely populated and too densely populated villages are relatively neglected.

7. Farm Productivity and Energy Intake in Rural India (Authors: R. Jha, R. Gaiha and A. Sharma)

ABSTRACT

This paper attempts to verify whether the existence of the poverty nutrition trap has implications for agricultural productivity in rural India. We find evidence that energy intake has affected farm productivity in rural India irrespective of whether we do robust regression or control for self-selection issues through a Heckman procedure. Thus improving energy intake would help improve farm productivity in rural India.

DISSEMINATION OUTPUTS

Several working papers from the project are available on ASARC website:

<http://rspas.anu.edu.au/asarc/publications.php>

Several papers from this project will now be submitted to major conferences for presentation and to journals for publication. We aim to put together a book on the project and will be approaching major international publishers for publication.

DISCUSSION OF FINDINGS WITH POLICY MAKERS AND PRACTITIONERS

A workshop was organised in New Delhi in November 2005 to discuss the results from the project. This workshop was very well attended with participation of staff from government, academic institutions, policy making bodies, independent senior health and nutrition experts as well as representatives from the Delhi office of DFID (David Radcliffe and Michael Ward), IFAD, and the Ford Foundation. The complete list of participants and a program of this workshop are attached in the Appendix to this report.

Overall the participants were highly appreciative of the work done in this project. The papers included in this report were revised in accordance with the comments and suggestions received from participants at this workshop.

PLANNED ACTIVITIES FOR NEXT YEAR

None – the project has come to an end.

PLANNED MODIFICATIONS TO PROJECT IMPLEMENTATION:

OTHER COMMENTS: It is our considered view that the project has led to many important papers that will be useful both from a policy perspective as well as academically. All my coauthors and I would like to express our deep appreciation and thanks to DFID for funding this project.

NAME: RAGHBENDRA JHA

DATE: 27th JUNE 2006

Appendix Workshop Participant List and Program

Australia South Asia Research Centre's (ASARC)

Project Completion Workshop

Poverty Nutrition Traps in Rural India

supported by DFID

Tuesday, 22 November 2005

Conference Centre, India International Centre, New Delhi, India

List of Participants

<i>Name</i>	<i>Affiliation</i>
Prof Bina Agarwal	Inst. of Economic Growth, Delhi, India
Mr Raj Bhatia	Ford Foundation, Delhi, India
Dr Rajesh Chadha	NCAER Delhi, India
Assoc. Prof Puneet Chitkara	TERI, School of Advanced Studies, Delhi, India
Dr Venkatesh Dutta	Lecturer, BBA Central University Lucknow, India
Dr Raghav Gaiha	Univ. of Delhi, project co-researcher, Delhi, India
Dr Santanu Gupta	Institute of Technology and Management, Delhi, India
Prof Raghendra Jha	Project co-ordinator, ASARC, Canberra, ACT, Australia
Mr Karan Jassal	Economist, Reliance Energy, Delhi, India
Dr Paramjeet Kaur	Univ. of Delhi, SGGSCC, Delhi, India
Dr Simrit Kaur	Univ. of Delhi, management studies, Delhi, India
Dr P.D. Kaushik	Rajiv Gandhi Foundation, Delhi, India
Dr Suresh Kulkarni	Consultant, Delhi, India
Prof. KV Bhanu Murthy	Delhi School of Economics, Delhi, India
Dr Sudhir Naib	Ministry of Defence, Delhi, India
Dr Mani Nandhi	University of Delhi, Delhi, India
Mr David Radcliffe	DFID Delhi, India
Dr Anshuman Saikia	IFAD Delhi, India
Dr Pronab Sen	Planning Commission, Govt of India, India

Prof. Shylashri Shankar	Centre for Policy Research, Delhi, India
Dr A. Venkatraman	Health specialist, Delhi, India
Michael P. Ward	DFID Delhi, India

The Program of the Workshop was as follows:

PROGRAM
PROJECT COMPLETION WORKSHOP
POVERTY NUTRITION TRAP IN RURAL INDIA

SPONSORING AGENCY:
DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID),
UK

INDIA INTERNATIONAL CENTRE ANNEXE
10 AM TO 1.15PM, TUESDAY, 22 NOVEMBER 2005

Session 1: 10:00 to 11:30am

Poverty, Nutrition and the Labour Market Experience

Chair: Prof. Bina Agarwal, Institute of Economic Growth

Speakers: Prof. Raghav Gaiha and Prof. Raghendra Jha

Discussant: Dr Simrit Kaur

Concluding Remarks: Prof. Bina Agarwal

11:30 to 11:45 am — Coffee Break

Session 2: 11:45 am to 1:15 pm

Panel Discussion on: Poverty and Nutrition Outcomes in Rural India: Regional Analyses

Chair: Dr Pronab Sen

Speakers: Prof. Shylashri Shankar,
Prof. Raghav Gaiha and
Prof. Raghendra Jha

1:15 pm — Lunch