Journal of Social and Economic Development

Vol. 6 No. 1 **January - June 2004**

INSTITUTE FOR SOCIAL AND ECONOMIC CHANGE
BANGALORE

JOURNAL OF SOCIAL AND ECONOMIC DEVELOPMENT
(Published biannually in January and July)
Institute for Social and Economic Change
Bangalore–560 072, India

Aims and Scope

The Journal provides a forum for in-depth analysis of problems of social, economic, political, institutional, cultural and environmental transformation taking place in the world today, particularly in developing countries. It welcomes articles with rigorous reasoning, supported by proper documentation. Articles, including field-based ones, are expected to have a theoretical and/or historical perspective. The Journal would particularly encourage inter-disciplinary articles that are accessible to a wider group of social scientists and policy makers, in addition to articles specific to particular social sciences. The Journal also gives scope to Research Notes, Comments, Book Reviews and Review Articles.

All correspondence to be addressed to:

Editor
Journal of Social and Economic Development
Institute for Social and Economic Change
Prof. V. K. R. V. Rao Avenue
Nagarabhavi P.O.
Bangalore 560 072, India

Journal of Social and Economic Development

Vol. VI January – June 2004 No.1

Articles

Book Reviews

ISSN 0972 – 5792

Website: www.isec.ac.in/journal

Impact of Trade Liberalisation on Employment in Indian Manufacturing: Evidence from the Organised Sector

Shashanka Bhide [*]
Kaliappa Kalirajan [**]

Abstract

Manufacturing has been seen as a means of economic development in the country since independence. Moving people out of agriculture for better wages meant the need to develop a diversified and growing industrial sector. The economic reforms launched in the early 1990s were rooted in the need for removing various constraints on economic growth. These reforms provided new opportunities for investment by the private sector and greater import competition for the domestic producers. This paper is an attempt to assess the impact on employment in response to the reforms initiated in the 1990s. The paper examines the impact of the reforms on employment by decomposing employment into average size of the firm, labour intensity of output, and number of firms in the industry.

Introduction

Industry, or more specifically manufacturing, has been seen as a means of economic development in the country since independence. Moving people out of agriculture for better wages meant the need to develop a diversified and growing industrial sector. This expectation has not been entirely fulfilled for India to the extent it has in some of the faster growing developing countries. For instance, in China, manufacturing sector accounts for over 35 per cent of the total GDP; for the ASEAN countries as a whole the figure is 25 per cent; for India, the share is only 17 per cent (Thomas 2002). In terms of employment, manufacturing provides for about 11 per cent of total employment in the Indian economy. The economic reforms in India launched in the early 1990s were rooted in the need for removing various constraints on economic growth. Reforms in the industrial and trade policies provided new opportunities for investment by the private sector and greater import competition for the domestic producers. The tax and financial sector reforms aimed at providing more attractive environment for business. The initial impact of these

[*] RBI Chair Professor, Institute for Social and Economic Change, Bangalore

[**] Professor, Foundation for Advanced Studies in International Development, Tokyo. The authors are grateful to the anonymous referee for the comments, which helped us improve the paper substantially.

reforms was to accelerate growth of the economy including industry. The real GDP growth was about 7 per cent for three consecutive years of 1994–95, 1995–96 and 1996–97. Growth of manufacturing output (GDP real) rose by 10 per cent during this three year-period of high growth. However, since this period of accelerated growth, there was a slow down until the very recent pick up of growth in 2003–04. The decline in growth of output in the period 1997–98 to 2001–02 was greater for industry than for the economy as a whole.

The decline in the growth of industrial output since 1997–98 led to a concern on the sustainability of higher rate of growth for the sector. A variety of factors were suggested by researchers as being responsible for the slow growth, some cyclical and some structural: global economic slowdown, high real interest rates, uncertainty for the domestic producers induced by increased import competition due to liberalization of the trade policies, inadequate reforms in labour policy and the small-scale industry policy[1]. While there have been attempts at resolving some of the adverse policy conditions, the prospect of slower industrial growth is likely to undermine the objective of accelerating economic growth during the next five-year period as articulated in the official policy documents. For example, the Tenth Five-Year Plan envisages a growth of real GDP at the rate of 8 per cent per year.

More than merely the deceleration in output growth it is the potential for slower growth of employment in manufacturing that has attracted more debate on an appropriate policy framework. When the economic reforms began in the early 1990s, there were concerns relating to the expansion of employment opportunities as a consequence of these reforms. Fiscal compression, privatization and greater import competition were thought to restrain output and hence employment growth. These concerns came in the wake of a decade of accelerated industrial growth in the 1980s but with stagnant employment in the organized sector of manufacturing. One of the concerns emerging from the growth experience of the 1980s was that it was not only the stagnant employment in manufacturing but the implication that employment elasticity of output had declined. Lower elasticity would mean future growth of output, which might lead to smaller increase in employment. However, the actual experience of the 1990s in the context of growth of employment in the organized manufacturing was more positive. A number of recent studies point to an accelerated growth of employment in the organized sector of manufacturing in the 1990s as compared with the previous decade (Goldar 2000 and Tendulkar 2003). These studies also point out that after allowing for some other factors such as real wage growth and the number of days worked per worker (rather than the total number of workers), the employment elasticity of output had not shown any decline in the 1980s. These studies suggest that the economic reforms of the 1990s indeed had a positive impact on employment in manufacturing. In a detailed study of the impact of trade liberalization on employment in India, Goldar (2002) points to the

employment enhancing impact of trade liberalization.

Hasan, Mitra and Ramaswamy (2003) present a rigorous analysis of the impact of trade liberalization on labour-demand elasticity of manufacturing sector in India. They use data from Annual Survey of Industries (ASI) for the sub-sectors of manufacturing for the Indian States for the period 1980 to 1997. This study estimates the impact of trade liberalization, characterized by the declining tariff and non-tariff barriers, on labour-demand elasticity to be positive. The study also shows that the demand elasticity is greater in states with more flexible labour regulations. The implication of higher demand elasticity of labour is greater potential for employment shocks when there are shocks to wage rates or output demand. Although this study highlights one transmission mechanism of the impact of trade liberalization on employment, it does not indicate the overall impact on employment. Conceptually, trade liberalization may have a 'scale effect' on employment as the demand for manufacturing output may increase with the decline in product prices due to liberalization of a protected market. There may also be a 'substitution effect' as the composition of manufacturing output may also change when characterized by labour intensity of production. Production capacity of 'labour-intensive' sectors may rise relative to 'capital-intensive' sectors reflecting a move towards sectors in which a developing economy such as India's can be expected to have a comparative advantage in trade.

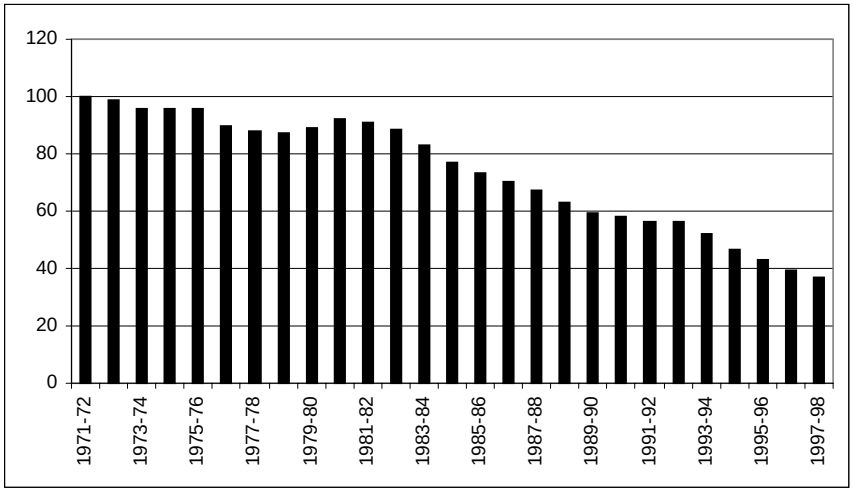
Given the importance of creating employment opportunities in an economy such as India where there are no unemployment safety nets we provide a further analysis of the trends in the organized manufacturing sector through a decomposition of the employment in the sector in terms of intensity of labour use, average size of the factory (factory) and the number of firms (factories). The previous studies have generally considered total employment in the organized manufacturing, in the aggregate or at 2-digit level of classification, for analysis. This paper also presents the analysis at 2-digit level classification of manufacturing industries. We present an assessment of the impact of trade liberalization on employment in manufacturing.

Employment Trends in the Manufacturing Sector

Manufacturing sector was seen as an instrument of economic development where more employment could be found for transferring surplus labour from agriculture over time. However, between 1961 and 1999, while employment share of agriculture and allied sectors declined from 75.9 per cent to 60.4 per cent, the share of manufacturing increased from 9.3 per cent to only 11 per cent. The other segments of industry, namely, mining & quarrying, electricity, gas and water supply and construction absorbed an additional 6 per cent of the share, and services absorbed the remaining 8 per cent (Table 1). Thus, manufacturing sector offered relatively slower growth of employment than the other non-agricultural sectors and also relative to its own output growth. At the aggregate level, the slower absorption of

labour in manufacturing is illustrated by the declining ratio of employment to output (Figure 1).

Figure 1: Labour Intensity of Manufacturing Output: Index of the Ratio of Employment to Real GDP with 1971-72=100



Note: The index is derived based on data on real GDP from manufacturing and employment estimated as employment in organized manufacturing *plus* employment in unorganized manufacturing calculated in a NCAER report (NCAER 2002).

It is also important to note that in the more recent period, growth of employment in manufacturing occurred in the private sector of the organized sector relative to the decline in employment in the public sector and in the unorganized sector relative to stagnation in the organized sector (Tables 2 and 3).

These available data, therefore, suggest that employment growth in the manufacturing sector has been slow relative to the other non-agricultural sectors and in the 1990s, employment growth in the organized sector slowed and declined in the public sector.

Table 1: Percentage Distribution of Employment by Sectors

Sectors	1961	1983	1993	1999
Agriculture & allied sectors	75.9	68.5	64	60.4
Industry	11.6	14.5	15.8	17.3
Manufacturing	9.3	10.6	10.6	11
Other	2.3	3.9	5.2	6.3
Services	3.2	6.4	9.6	11.3
Total	100.0	100.0	100.0	100.0

Source: Based on Sundaram and Tendulkar (2003)

Table 2: Rate of Growth of Employment, 1993-94 to 1999-00 (% per year)

Sector	Organised	Unorganized	Total
Agriculture	-1.00	0.03	0.02
Mining & quarrying	-1.30	-2.40	-1.91
Manufacturing	0.87	2.95	2.58
Electricity, gas & water supply	0.51	-17.00	-3.55
Construction	-0.69	5.85	5.21
Trade, hotels & restaurants	1.43	5.79	5.72
Transportation, storage & communication	0.21	7.59	5.53
Finance, real estate, business services	1.27	8.30	5.40
Community, social and personal services	0.80	-3.56	-2.08
All	0.56	1.12	1.07

Source: Government of India (2002).

Table 3. Employment Trends in Manufacturing Sector in the 1990s

Sector	Level in million persons		% change
	1993-94	1999-00	1993 to 1999
Organised sector			
Public	1.784	1.531	-14.18
Private	4.630	5.085	9.83
Total	6.414	6.616	3.15
Unorganized sector	33.337	37.166	11.49
All	39.751	43.782	10.14

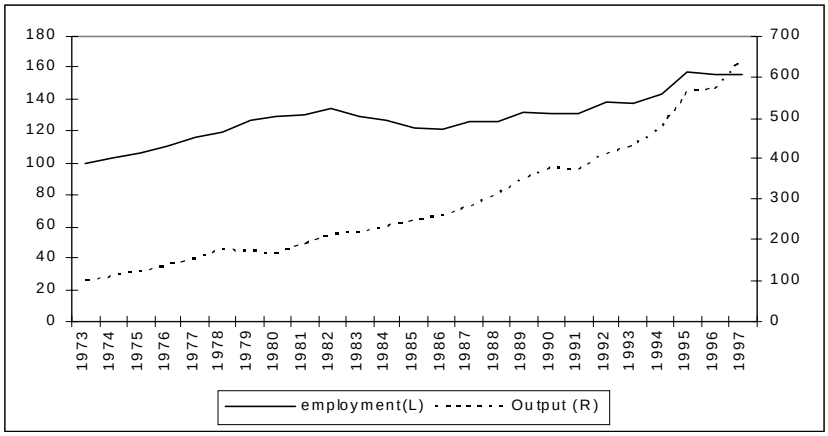
Source: Estimates based on Government of India (2002) and Government of India (2003).

These trends, however, mask one important trend in manufacturing sector employment. Data available for the organised sector from the Annual Survey of Industries for the period up to 1997–98 show an unmistakable acceleration in employment growth in the 1990s. Studies by Goldar (2000) and Tendulkar (2003) find a clear break in the 1990s from stagnation in employment observed in the previous decade of the 1980s. Goldar (2000), for example, notes that employment growth in the ASI manufacturing sector was 0.53 per cent per annum during 1980–90 and it was 2.69 per cent per annum during 1990–97.

These are clearly different trends when we compare the sample survey results for 1999–00 and the ASI results up to 1997–98, with the former showing very little growth in organized sector employment but the latter showing an accelerated

growth. We should note, however, that even in the sample survey results, there is an increase in the growth rate of employment relative to the performance in the pervious decade of the 1980s. The pattern of growth of employment and output in the ASI manufacturing sector is shown in Figure 2 below.

Figure 2: Employment and Output in Organised Manufacturing: Indices with 1973=100



Note: Employment in terms of number of workers and output is the real gross value of output based on ASI data.

The acceleration in employment growth occurred from about mid-1980s up to about mid-1990s but it has since then actually turned negative. The slowdown in manufacturing output growth has also, therefore, been accompanied by stagnation of employment.

The period of stagnant employment in the organized manufacturing sector in the 1980s was described as one of 'jobless growth' in the literature. Goldar (2000) and Tendulkar (2003) point to the break from this pattern and Tendulkar (2003) suggests that the economic reforms of the 1990s have had a positive impact on employment contrary to the pessimism expressed by some at the beginning of the reform process. The slowdown in output growth of manufacturing since 1997-98, if only cyclical, would reverse when the demand conditions improve. But the more consistent pattern of declining intensity of labour use in manufacturing, however, indicates that the employment growth in manufacturing may not depend only on the recovery of output growth. Two main factors that were identified in the past studies for reducing intensity of labour use in manufacturing were (1) rising real product wage rates; and (2) more intensive use of existing labour force as reflected in the rise in the number of days of employment rather than the number of workers.

In these studies the role of trade liberalization was indicated but not explicitly examined. In another detailed study, noted earlier, of the impact of trade liberalisation on manufacturing employment, Goldar (2002) points to the employment enhancing role of trade liberalization. He shows that export-oriented industries performed better in the 1990s in increasing the employment growth. We propose to test this result in a slightly different framework in the following section.

Manufacturing Employment: A Decomposition Analysis

The rise of employment growth in the organized manufacturing sector in the 1990s came after a decade of stagnation in the 1980s. A persistent pattern during the 1980s as well as in the 1990s was the decline in the ratio of employment to output. Inverse of this ratio is 'average labour productivity', suggesting a continuous improvement in productivity. In the context of the debate on deindustrialization (Rowthorn and Ramaswamy 1997), the decline in the share in real terms relative to the fall in current prices share reflects an improvement in the productivity of manufacturing sector in the country. There has been a faster growth of services relative to manufacturing during the period between 1997–98 and 2001–02. However, evidence on the improvement in productivity is still mixed. In a recent study, Unel (2003) shows the rise in total factor productivity during both the decades of 1980s and 1990s. Thus, prospects for employment growth are related to productivity improvement and improvement in overall demand conditions. In fact, total employment can be decomposed in a manner in which labour intensity is one component[2]:

$$N = (N/Q) \cdot (Q/F) \cdot F \quad \text{———} \quad (1)$$

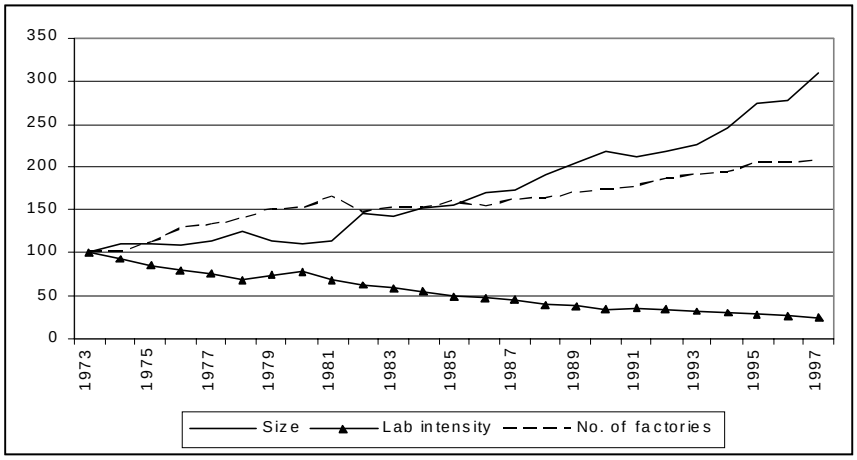
Where,
N= total employment in terms of number of workers
Q= Output (value of gross output)
F = number of factories

The first term in the right hand side of equation (1) is the labour intensity of output, the second term (Q/F) is the average size of the factory in terms of output and the term F is the total number of factories.

Growth in employment can be approximated as a sum of growth in the components. If the labour intensity reduces as a result of higher labour productivity induced by a variety of factors, employment can still increase depending on the impact of these and other factors on firm size and number of factories. In other words, producers may increase the size of the factory to derive economies of scale and also set up new production facilities to increase production.

The trends in the three components are illustrated in Figure 3 for the period 1973–74 to 1997–98 based on the ASI data. The trends again clearly point to the decline in labour intensity of output over the period and increase in the size of firm (factory) and number of factories. Average size of the factories in terms of value of output increased much faster than the rise in the number of factories.

Figure 3: Components of Employment in Organised Manufacturing: Indices with 1973=100



Note: Size is in terms of value of gross output in real terms per factory. Labour intensity is number of workers per real value of output.

A decomposition of the growth in employment for different periods has been provided in Table 4. In the 1970s, 1980s and 1990s for the years defined above in the table, there has been a decline in labour intensity. There has also been a significantly higher increase in the average size of the factories in the 1980s and 1990s relative to 1970s. However, the number of factories increased at a significantly higher rate in the 1970s than in the subsequent two decades.

The results point to the increase in the size of factory, measured in terms of value of output per factory. Because of the decline in labour-intensity of production, the average employment per factory may decline. There may be an increase in the average productivity of labour leading to a decline in employment per factory.

To provide an overview of the differences in the growth of employment, size (of factories with respect to output value), number of factories and changes in labour intensity across different industrial sectors, the pattern of changes has been presented for 2-digit groupings of the ASI manufacturing sector in Tables 5 and 6.

Table 4: Decomposition of Growth in Employment in Organised Manufacturing: Average Annual Growth Rates (%)

Period	Employment (No. of Workers)	Size (Real Gross Output Per Factory)	Intensity (No. of Workers Per Real Value of Gross Output)	Factories (No.)
1973-80	3.99	2.20	-4.99	6.77
1980-90	0.35	5.86	-6.74	1.23
1990-98	2.09	5.18	-5.60	2.50
1993-98	2.30	6.95	-6.72	2.06
1973-98	1.84	4.72	-5.92	3.04

Table 5: Labour Intensity and Other Components of Employment in ASI Manufacturing Industry in the 1980s

Sector	2-digit Level Group	Labour Intensity in 1982-85	Percentage Change between Average for 1985-90 and Average for 1982-85			
			Size of Factory (Output)	Size of Factory (Workers/ Factory)	Labour Intensity (Workers/ Output)	Factories (Number)
Rubber, Plastic, Petroleum & Coal Products	31	20.3	12.92	-6.46	-16.99	18.87
Basic Chemicals, Products	30	43.6	23.28	-5.52	-22.09	14.70
Basic Metals and Alloys	33	62.7	13.93	-8.99	-18.50	5.82
Non-Electrical Machinery	35	71.5	19.00	-6.62	-21.04	5.84
Wool, Silk & Manmade Fibres	24	83.9	58.53	6.91	-31.86	-1.95
Food Products	20-21	89.2	20.59	-12.77	-26.53	5.14
Electrical Machinery	36	89.6	25.52	-8.17	-25.51	15.77
Leather Products	29	98.0	20.48	6.31	-11.57	19.56
Textile Products	26	102.0	31.73	8.90	-16.56	11.13
Transport	37	105.2	16.77	-17.54	-28.22	15.45
Other Manufacturing	38	107.3	67.83	5.99	-35.92	6.62
Manufacture of Metal Products	34	113.7	16.50	-2.90	-16.04	5.55
Paper Products	28	139.2	12.55	-12.58	-21.91	6.23
Non-Metallic Mineral Products	32	163.0	25.49	-13.34	-30.01	18.10
Cotton Textiles	23	168.4	10.11	-18.59	-25.70	3.74
Wood, Furniture, Fixtures	27	220.4	26.45	-4.25	-21.16	-2.05
Beverages, Tobacco & Products	22	249.7	9.85	1.46	-10.58	1.94
Jute, Hemp etc., Textiles	25	428.3	9.34	-17.40	-23.56	1.91
All Manufacturing (Excluding Repairs)	100	36.2	21.72	-9.83	-25.32	7.71

Note: Sectors arranged in ascending order of level of intensity in the 'base' period. Percentage changes have been calculated using the average levels of each variable for the periods indicated. The real output of the sectors has been derived by deflating nominal output by a wholesale price index specific to each sector.

One striking feature of the changes in labour intensity in both the periods considered is that the intensity has declined in nearly all the sectors. Only one of the sectors, namely, wood, furniture and fixtures, has shown increase in labour intensity during the 1990s. Although the average level of intensity is closer to the lowest intensity level among all the sectors, it should be noted that the overall average intensity is not derived from an aggregation of the individual sectors.

Since nearly all sectors show a decline in labour intensity, it would be important to examine if there has been change in intensity due to change in the structure of industry: whether there is an expansion of higher intensity sectors relative to lower intensity sectors. We estimated the labour intensity by holding the structure of output constant (keeping the sectoral shares of real output constant) for two selected periods and by comparing with the actual intensity over time.

Table 6: Labour Intensity and Other Components of Employment in ASI Manufacturing Industry in the 1990s

Sector	2-digit Level Group	Labour Intensity in 1985-90	Percentage Change between 1985-90 and 1993-98			
			Size of Factory (Output)	Size of Factory (Workers/ Factory)	Labour Intensity (Workers/ Output)	Factories (Number)
Rubber, Plastic, Petroleum & Coal Products	31	16.8	25.85	0.77	-19.96	50.72
Basic Chemicals, Products	30	34.0	45.06	-3.36	-34.30	34.08
Basic Metals and Alloys	33	51.1	57.52	-1.39	-38.49	10.95
Electrical Machinery	36	53.3	38.99	-7.40	-34.13	30.98
Wool, Silk & Manmade Fibres	24	57.2	86.92	-1.60	-48.19	25.22
Food Products	20-21	65.5	47.21	4.09	-29.61	19.85
Other Manufacturing	38	68.7	202.83	31.84	-57.36	24.75
Non-Electrical Machinery	35	70.8	52.61	-1.06	-34.32	12.93
Transport	37	75.5	92.47	-5.00	-49.19	23.35
Textile Products	26	85.1	51.44	33.26	-13.11	89.08
Leather Products	29	86.6	28.18	-10.08	-30.16	74.30
Manufacture of Metal Products	34	95.5	51.06	8.96	-28.06	22.04
Paper Products	28	108.7	54.73	4.64	-31.87	13.69
Non-Metallic Mineral Products	32	114.1	31.70	-15.68	-36.62	27.06
Cotton Textiles	23	125.1	16.84	-21.93	-33.36	23.62
Wood, Furniture, Fixtures	27	173.7	-11.11	-0.88	8.43	2.54
Beverages, Tobacco & Products	22	223.3	61.55	40.03	-13.16	-5.20
Jute, Hemp etc., Textiles	25	327.4	-50.22	-53.25	-7.00	103.98
All Manufacturing (Excluding Repairs)	100	27.0	42.73	-2.94	-29.63	22.96

Note: Sectors arranged in ascending order of level of intensity in the 'base' period. Percentage changes have been calculated using the average levels of each variable for the periods indicated. The real output of the sectors has been derived by deflating nominal output by a wholesale price index specific to each sector.

The estimates given in Table 7 show that the structural change implies further reduction in labour-intensity. The sectors with lower labour intensity have expanded relative to the sectors with higher labour intensity.

Table 7: Changes in Intensity with Fixed Output Shares

Period	Actual Intensity (Weighted Average of Sectoral Intensity)	Intensity Using Fixed Output Structure of 1983-84 (Weighted Average)	Intensity Using Fixed Output Structure of 1990-91 (Weighted Average)
1983-84	94.08	94.08	89.94
1990-91	50.84	54.13	50.84
1997-98	34.53	38.39	35.80

Some Explanations for Trends in Employment

Thus, reduction in labour intensity was the major factor that led to lower growth of employment in the 1980s as well as 1990s. The other two components of employment, namely, average size and number of factories expanded during the 1980s as well as 1990s. The changes were in response to various other factors that affected the business sector: both at the micro and macro levels. One issue that has been of concern with reference to employment has been the impact of the liberalisation of trade policies. The total impact on employment would depend on the impact of the policy changes on the components. To indicate the range of parameters affecting business conditions as well as variables that are controlled by the industry, we have summarized in Table 8, the changes in selected variables that relate to the performance of the manufacturing sector.

Two factors that were substantially different in the 1990s relative to the previous two decades were (1) trade to GDP ratio and the ratio of PM to WPI_all. These two variables in a sense captured the impact of trade liberalisation in the 1990s. Although there were reforms in trade policies even prior to the 1990s, the combination of industrial policy reforms and trade policy reforms was launched in the 1990s. These changes would have influenced industrial sector in a variety of ways including employment. Table 8 also shows the sharp rise in employment in the factory sector and in output during the 1990s relative to the stagnation in employment during the 1980s.

Table 8: Trends in Selected Variables Relating to Manufacturing Sector's Performance (Annual % Growth Rates Based on Semi-Log Regression Models with Time Dummies for Different Periods)

Item	1970s	1980s	1990s
I. Macro Variables			
a. GDP_R	3.94	5.43	4.91
b. WPI_All	5.58	7.17	4.86
c. Trade_GDP Ratio	6.26	0.39	7.92
d. (Total Exports/ GDP) Ratio	5.90	2.72	3.99
e. (Total Imports/ GDP) Ratio	6.52	-1.17	10.93
II. Broad Manufacturing Related Variables			
a. GDPR_Mfg	5.74	7.05	6.01
b. PM	5.40	7.00	5.34
c. PM/WPI	-0.18	-0.16	-0.80
d. (Exports/ GDP) in Manufacturing	6.65	5.78	2.48
e. (Imports/ GDP) in Manufacturing	4.14	-1.41	9.05
III. Variables Relating to ASI Manufacturing Sector			
a. Employees Number	4.61	-0.11	7.49
b. Workers Number (N)	4.02	0.02	7.08
c. Factories Number	7.53	1.26	8.65
d. Value Added (Real) (VA)	7.47	7.51	9.67
e. Gross Output (Real) (Q)	10.21	7.59	12.42
f. Wage Rate (Employees)	6.97	11.54	6.53
g. Wage Rate (Workers)	8.50	11.72	7.89
h. Labour Productivity (Q/N)	5.95	7.58	4.99
i. Labour Intensity (N/Q)	-5.62	-7.04	-4.75
j. Labour Intensity (N/VA)	-2.65	-6.83	-1.99
IV. Components of ASI Manufacturing Sector Employment			
a. Employees Per Factory	-2.71	-1.06	-1.07
b. Workers Per Factory	-3.28	-1.23	-1.46
c. Output Per Factory (Real)	2.49	6.27	3.47
d. Value Added Per Factory (Real)	-0.06	6.18	0.93
V. Structure of ASI Manufacturing Industry			
a. Standard Deviation (GVA_Nominal)	-0.60	-0.58	1.34
b. Standard Deviation (Employees)	0.15	-2.07	1.45
c. Standard Deviation (Workers)	0.24	-1.84	1.22
d. Standard Deviation (Output Value Nominal)	0.80	1.60	0.72

We have attempted to examine the impact of trade liberalisation on employment in the following regression model:

$$\text{Log } Y = a0 + a1 \text{ Log } Y(-1) + a2 \text{ Log GDPR} + a3 \text{ Log TRADE} + u \quad \text{——} \quad (2)$$

Where,
Y = each of the three components of employment considered one at a time, GDPR = real GDP, TRADE = proxy for trade liberalization, and u = error term

Two variables reflect trade liberalization. One is the ratio of total trade (imports plus exports of merchandise) to GDP and the second is the ratio of the price of manufactured goods (wholesale price index PM) to the overall wholesale price index (WPI_all). Other explanatory variables that may be considered include the real wage rate or the ratio of real wage rate to the cost of capital. Limiting the range of explanatory variables to just an activity variable such as real GDP and a proxy for trade liberalization, it does point to the need for a more intensive analysis. However, this paper provides an initial assessment of the impact of trade liberalization on employment. The estimation results have been presented in Tables 9a – 9c. The analysis is based on annual data for the period 1973–74 to 1997–98. In the regression analysis, we have included another employment-related variable, namely, average size of the factory in terms of workers per factory as a dependent variable[3].

Before we present the findings of the regression analysis, an examination of some intuition behind the plausible impact of the selected explanatory variables on employment variables is useful. There are two types of impact of the activity variable such as the real GDP and trade liberalisation. The 'scale effect' represented by the impact of real GDP on average size of the factory or number of factories can be expected to be positive, as the impact of higher demand for manufacturing output can be met by increasing the scale of operations. There may also be a 'composition effect' resulting from changes in the composition of manufacturing output. The impact of higher GDP may not be uniform across all the sectors, leading to change in the composition of output and in turn influencing the average size of the firm/ factory. The impact on number of factories may remain positive as more firms may enter production due to higher demand for output.

The impact on labour-intensity of output may be difficult to predict since firms may respond by enhancing the size of operations by increasing the use of capital rather than labour. Changes in the composition of output in terms of contribution by different sub-sectors may have different firm-level characteristics, such as labour-intensity, and may reinforce or offset the 'scale effect'. In this sense, the impact of activity level or trade liberalisation, measured either with respect to average employment or size characteristics of the firms and labour-intensity of production would become an empirical issue rather than theoretical prediction.

Table 9a. Explaining the Employment Growth: Size and Number of Factories

Independent Variables	Dependent Variable: Log (Q/FACNUM)		Dependent Variable: Log (FACNUM)	
	Regression Coefficient	Absolute Value of t-Ratio	Regression Coefficient	Absolute Value of t-Ratio
Trade Liberalisation Proxy: PM/WPI_All				
Constant	1.6384	0.47ns	3.4090	1.87*
Log (GDP_R)	0.6330	3.51***	0.1346	3.61***
Log (PM/WPI_All)	-0.9809	1.57ns	0.9937	3.06***
Lag1 (dep. Variable)	0.2970	1.58ns	0.7446	10.47***
AR(1)			0.4939	2.54**
R Squared	0.98		0.96	
LM for Serial Correlation (AR(2))	0.91ns		2.05ns	
Trade Liberalisation Proxy: Trade/GDP Ratio				
Constant	-5.3539	4.35***	2.9689	3.14***
Log (GDP_R)	0.8523	4.69***	0.0766	1.14ns
Log (Trade_GDP)	-0.1602	1.95*	0.1109	1.58ns
Lag1 (dep. Variable)	0.1998	1.09ns	0.6747	6.02***
R Squared	0.98		0.95	
DW	2.04		2.48	
LM for Serial Correlation (AR(2))	1.95ns		4.19ns	

Note: The level of significance of the regression coefficient is indicated by * for 10%, ** for 5%, *** for 1% and ns if significant at more than 10%; LM = Breusch-Godfrey Lagrange Multiplier statistic for serial correlation; Q = output value (real); FACNUM= number of factories. For other acronyms please see the text.

Table 9b: Explaining the Employment Growth: Labour Intensity

Independent Variables	Dependent Variable: Log (N/Q)		Dependent Variable: Log (N/Q)	
	Regression Coefficient	Absolute Value of t-Ratio	Regression Coefficient	Absolute Value of t-Ratio
Trade Liberalisation Proxy: PM/WPI_All				
Constant	6.2685	1.69ns		
Log (GDP_R)	-0.5652	3.51***		
Log (PM/WPI_All)	0.5992	1.32ns		
Lag1 (dep. Variable)	0.4953	3.68***		
R Squared	0.99			
LM for Serial Correlation (AR(2))	1.26ns			
Trade Liberalisation Proxy: Trade/GDP Ratio				
Constant	14.3726	6.77***	13.7883	6.19***
Log (GDP_R)	-0.8962	6.79***	-0.8590	6.19***
Log (Trade_GDP)	0.2044	4.28***	0.2089	5.38***
Lag1 (dep. Variable)	0.3244	3.08***	0.3561	3.20***
AR(1)			-0.3437ns	1.27ns
R Squared	0.99		0.99	
LM for Serial Correlation (AR(2))	6.98**		2.72ns	

Note: N= number of workers; for explanation of the other acronyms refer to the note under Table 9a.

Table 9c. Explaining the Employment Growth: Employment Per Factory

Independent Variables	Dependent Variable: Log (Workers/Factory)		Dependent Variable: Log (Workers/Factory)	
	Regression Coefficient	Absolute Value of t-Ratio	Regression Coefficient	Absolute Value of t-Ratio
Trade Liberalisation Proxy: PM/WPI_All				
Constant	6.0818	1.94*	4.2862	1.68 ns
Log (GDP_R)	-0.1278	2.25**	-0.0819	1.63 ns
Log (PM/WPI_All)	-0.4766	0.90 ns	0.3169	0.77 ns
Lag1 (dep. Variable)	0.4531	2.47**	0.5647	2.92***
AR(1)			-0.3451	0.20 ns
R Squared	0.79		0.77	
LM for Serial Correlation (AR(2))	5.01*		1.96 ns	
Trade Liberalisation Proxy: Trade/GDP Ratio				
Constant	4.1036	2.51**	3.4983	2.05*
Log (GDP_R)	-0.1328	1.93*	-0.1067	1.68 ns
Log (Trade_GDP)	0.0455	0.62 ns	0.0532	1.00 ns
Lag1 (dep. Variable)	0.4375	2.32**	0.5052	2.33**
AR(1)			-0.2972	1.06 ns
R Squared	0.78		0.78	
LM for Serial Correlation (AR(2))	6.06**		2.39 ns	

Note: For explanation of the acronyms refer to the notes under Table 9a and 9b.

The main results can be summarised as follows:

i. The impact of overall demand conditions reflected in higher real GDP (GDPR) is to increase the size of factories (in terms of output per factory) and number of factories. Its impact on size of factories, in terms of number of workers per factory, is not significant. The impact of higher GDP on labour intensity is negative. This captures the persistent decline in labour intensity over time.
ii. The impact of trade liberalisation as captured by one of the two variables, trade_gdp ratio, on labour intensity is positive. The impact of (PM/WPI_all) on labour intensity is not significant.
iii. The impact of trade_gdp ratio is negative on average firm size. Greater trade openness favours smaller firms.
iv. The number of factories is influenced positively by GDP and (PM/WPI_all).

The results point to the pressures in the business conditions to improve labour productivity. The previously cited studies by Goldar (2000) and Tendulkar

(2003) emphasize the role of higher product wages in affecting employment. However, the trade variables were not explicitly brought in. The results presented here show that trade variables have an important bearing on Indian industry. The impact on labour intensity as captured in the above analysis suggests that opening up on the trade front may have slowed down the downward movement of labour intensity.

Conclusions

Manufacturing sector was perceived as the source of new employment opportunities in the development process in India. While the sector expanded and provided a growth impetus for the economy, its performance as a source of employment was less than anticipated by the policy makers. In comparison with the performance of manufacturing in other developing economies such as China and ASEAN group of economies, Indian manufacturing has been able to absorb a lower share of labour force in the economy. After a sharp acceleration in output in the mid-1990s, manufacturing output in India is showing signs of slower growth. In the context of policies for an accelerated growth of GDP over the next five years, the slower growth in manufacturing is a major constraint. More importantly, faith in manufacturing to deliver on more employment opportunities is beginning to be questioned.

Organised manufacturing sector, however, did provide more employment in the 1990s after the stagnation in the 1980s. This outcome provides some support for economic reforms. While stagnation in employment in the organised sector of manufacturing has been at least partly attributed to rising real wage rates in the period, in recent times, there has also been concern on the need for reforms in the labour policies to promote employment in manufacturing. Rise in real wage rate may be only one of the factors that may lead to the substitution of labour by capital in the production process. Factors such as available technology options, policy incentives for capital investment also influence the employment opportunities in the manufacturing sector.

This paper has examined the pattern of changes in employment in the organised manufacturing sector at a disaggregated level. Employment is seen in terms of three components: labour intensity, size of factories and number of factories.

One critical feature in the organised sector of Indian manufacturing affecting employment growth has been the decline in the labour-intensity of output or conversely, the rise in labour productivity. The rise in productivity has not been matched by the rise in demand for manufacturing output so that aggregate employment increases. We show that there is a consistent decline in labour intensity in manufacturing. However, there is an increasing tendency in the size of factories and increase in the number of factories.

Regression analysis shows that while the overall growth of the economy has positively influenced decline in labour intensity, greater trade has a positive effect on labour intensity. Greater trade openness has also a negative impact on the size of factory. In other words, increased trade openness has increased labour intensity and favoured smaller firms. The ratio (PM/WPI_ALL) has affected the number of factories positively, suggesting that greater market competition is leading to the growth of newer firms which may be better organised to perform in the new business environment. The regression results, however, are based on a limited set of explanatory variables and therefore, need to be examined further in a broader analysis to test their robustness.

Notes

[1] RBI (2002 and 2003) outlines the various views on the slowdown of the industrial output growth after the mid-1990s and also presents a comprehensive analysis of the industrial performance during the 1990s.

[2] There can be alternative ways of decomposition, for example, (N/Q) ={(N/F) / (Q/F)}. This suggests, besides the output per factory the average size of the factory in terms of total employees can also be a matter of decision for the managers.

[3] The estimation strategy followed is to first assess the serial correlation in residuals using Breusch- Godfrey LM test as given in *Eviews*, and if the test shows significant serial correlation, then a second regression equation is estimated using the AR(1) term.

References

Goldar, B.N. (2000). Employment Growth in Manufacturing in India. *Economic and Political Weekly*. XXXV(14):1191-95.

——— (2002) *Trade Liberalization and Manufacturing Employment: The Case of India*. Employment Paper 2002/34. Geneva: International Labour Organization.

Government of India (2002). *Report of the Special Group on Targetting Ten Million Employment Opportunities Per Year Over the Tenth Five Year Plan Period*. New Delhi: Planning Commission.

——— (2003). *Economic Survey, 2002-03*. New Delhi: Ministry of Finance.

Hasan, R., D. Mitra, and K.V. Ramaswamy (2003). Trade Reforms, Labour Regulations and Labour-Demand Elasticities: Empirical Evidence from India. *Working Paper 9879*. http://www.nber.org/papers/w9879. MA: NBER Working Paper Series, National Bureau of Economic Research.

NCAER (2002). *A Macroeconometric Model for the Indian Economy*. A Project Report Submitted to the Canadian International Development Agency. New Delhi: National Council of Applied Economic Research.

RBI (2002). *Report on Currency and Finance (2000-01)*. Mumbai: Reserve Bank of India.

RBI (2003). *Report on Currency and Finance (2001-02)*. Mumbai: Reserve Bank of India.

Rowthorn, R., and R. Ramaswamy (1997). Deindustrialisation: Causes and Implications. *IMF Working Paper WP 97/42*. Washington D.C: International Monetary Fund.

Sundaram, K., and S.D. Tendulkar (2002). The Working Poor in India: Employment-Poverty Linkages and Employment Policy Options. *Discussion Paper 4*. Issues in Employment and Poverty, Recovery & Reconstruction Department. Geneva: International Labour Organization.

Tendulkar, S.D. (2003). Employment Growth in Factory Manufacturing Sector During Pre and Post-Reform Periods. A Paper Presented at the *NBER-NCAER Annual Conference on Indian Economy*. New Delhi.

Thomas, J.J. (2002). A Review of Indian Manufacturing. In K. S. Parikh and R. Radhakrishna (eds.), *India Development Report.* New Delhi: Oxford University Press.

Unel, B. (2003). Productivity Trends in India's Manufacturing Sectors in the Last Two Decades. *IMF Working Paper WP/03/22*. Washington, D.C: IMF.

Land Reforms and Liberalisation in India: Rhetoric and Realities

N. Rajasekaran *

Abstract

The higher transaction costs in the *bi-modal* agrarian structure tend to reduce efficiency due to the moral hazards of labour and high cost of supervision. The findings indicate that in the states where the land reforms reported amazing achievements, the development indicators also reciprocated it with a gentle progress. The study suggests that in a primarily agricultural country like India, blanket reforms should not be encouraged to obscure the hard-earned gratifying achievements in agriculture and weaken the knees and necks of the rural masses. Proactive measures with the participation of a vibrant civil society to ascertain *uni-modal* agrarian structure should be the priority to ensure alternative livelihood systems to the vulnerable sections of society and social inclusion in the end.

Introduction

The inequalities in the distribution of land and the resultant increase in the value of land hamper agricultural development through a variety of visible and invisible transfer mechanisms from agriculture.[1] In India, nearly a third of the income from agriculture is being displaced from rural economy through visible and invisible transfer mechanisms due to the prevalence of conservative social and economic institutions in the villages. In a primarily agricultural country like India, where more than 70 per cent of the population depend on agriculture for their minimum privations and where noticeable imperfections in both labour and credit markets prevail, land inequality tends to be endogenous to income inequality. The classical economists have given a great deal of attention to the specification of economic and social structure, and have placed the understanding of the role of institutions and the state above all in determining not only the size of the economy (efficiency) but also the personal distribution of income (equity). Thus, the key to structure, institutions and the state is the distribution of asset ownership (de Janvry and Sadoulet 1988). Benjamin and

* Senior Fellow, ARMES (Academy of Rural Management and Environmental Sustainability), Bangalore - 78. The study benefited substantially from the discussion with Prof. R. S. Deshpande, ISEC, Bangalore. I would like to thank the anonymous referee of the journal for his encouraging and helpful comments and suggestions. Nevertheless, the usual disclaimers do apply here too.

Brandt (1997) expound that the impact of distribution of land on income inequality cannot be fully appreciated without reference to the structure of factor markets.

Neo-classical development economics school, growth with equity, underscores that the unequal distribution of asset ownership affects both efficiency and equity when transaction cost is included.[2] The transaction costs vary with land ownership, pattern of class formation and social differentiation in rural society due to moral hazards. But the classical economists insist that the redistribution of or social control over the asset is the key to reducing such transaction costs as the need to supervise labour and moral hazards in contractual arrangements would be reduced substantially. This has led the neo-classical development economists to advocate redistribution before growth (Adelman 1975; Mencher 1974). Mencher (1974) perceived in the Indian context that the effective implementation of land reforms prior to green revolution would have facilitated surpassing the goals of green revolution by cleansing conflicts and contradictions in the green revolution.

The Indian agriculture inherited two inexorable impediments from the British, viz., rural indebtedness and unproductive land tenure systems. Rural indebtedness was subdued partially through the inflationary situation in the post-war period and through subsidised institutional credit. But the inefficient land tenure systems and elusive inequalities in the distribution of land were found to be extremely difficult to do away with totally through deliberate policy measures and sincere state interventions. As a consequence, the relations of production in Indian agriculture are highly complicated to comprehend as different types of farmers coexist on the basis of ethnic and cultural identities. The personal cultivation with hired labour and tenancy relations like sharecropping or occupancy tenants are being practised depending upon the prevailing *bi-modal* or *uni-modal* structure in the pre-capitalist situation with imperfect or undeveloped markets. Since both the situations tend to have exploitative proclivities, there is an urgent need to correct the production relations to make the production system more efficient by removing the moral hazards and transaction costs. In the agrarian relations of production in the developing countries, the transaction costs remain noticeably higher due to the imperfections in the system itself. The system subsumes the state, the individuals and the social and economic institutions or collective action of the individuals. The proper and effective co-ordination of all the three would ascertain the reduction in transaction costs, reduction in moral hazards and ensure higher total factor productivity. This could be practicable only in a modernised peasant economy system where ownership and control of means of production are equitably distributed among family-consumption oriented peasants who employ family labour for production purposes (Ghose 1983).[3]

The experience of fostering agricultural development in Japan, Mexico, Taiwan and South Korea transpires the relevance of modernised peasant economy system. Johnston (1970) underscores that Japan's approach demonstrates the potential that exists for increasing farm output within the framework of a small-scale labour-intensive

agriculture by innovation and widespread adoption of yield increasing varieties. It appears to have great advantages for the developing countries with economic structure characterised by incipient phase. Similarly, Flores (1963) establishes that land reforms gave Mexico a government with a new concern for the people and the nation; it destroyed the caste system,[4] increased mobility, instilled the idea of progress and personal ambition, and helped create a favourable climate for road building, irrigation projects and industrialisation. Johnston (1970) also corroborates that in Mexico land holding ceased to be important as a source of political power or prestige, it became highly important as business enterprise for profit maximising entrepreneurs able and willing to exploit the economic opportunities that emerged. Hiseh and Lee (1966) assert that the main aspect of Taiwan's agricultural development was state's ability to meet the organisational requirements. In many developing countries more than the organisational requirements, the institutional and other obstacles have to be overcome. The slackness in reforms in these countries is attributed to the weakness of the peasantry as a whole. Wolf Ladejinsky (1969) elucidates the situation in countries like India that "the peasants themselves while discontented have not developed a movement whether in the form of tenant unions like those of Japan before the reforms or peasant political parties like those of Eastern Europe after First World War". Warriner (1969) also identifies similar reasons for the poor achievements of land reforms in developing countries. Joshi (1974) observes that between occupancy tenants on the one hand and tenancy-at-will sharecroppers and agricultural labourers on the other, land reforms in India and Pakistan were biased in favour of the former. It expounds clearly that only the healthy interaction between the state, the individuals and the collective action of people can ascertain a success in land reforms and as a result reduce transaction costs in the production relations.

In this backdrop of peasant agriculture in the balance, the present study seeks to assess the achievements and impact of land reforms and the role of the state, the people or people's collective action and the social or cultural institutions prevailing across states. The study also attempts to probe the relevance of land reforms in the context of liberalisation. The required data for the analysis of land reforms achievements have been gathered from the published sources like Annual Reports of the Ministry of Agriculture and Ministry of Rural Development, Government of India. The state in the study refers to the land reform legislation and implementing authorities, mainly bureaucrats and local leaders or opinion leaders (in the case of Land Tribunals). The term 'people' refers to movements like those of peasants and tenants. The social institutions explain the cultural and ethnic identities of the peasantry. This study is organised in six sections. While the following section delves into the rhetoric of land reform measures, the second and third sections assess the achievements and impact of land reforms respectively. The fourth section discusses the results in the context of liberalisation in India. The last section tunes the results in the context of liberalisation and draws the concluding observations of the study.

Rhetoric of Land Reforms

The neo-populist tradition (Chayanov) establishes the viability of peasant agriculture and its ability to survive and prosper under difficult circumstances. The peasantry also does not have the necessary tendency to develop economic inequalities. Chayanov sees modernisation of traditional small farming as a peasant path of raising the technical level of agricultural production at the same time conserving the peasant institutional framework of the family small holding (Harrison 1975). Ohkawa (1972) asserts that marginal and small farms tend to have an economic advantage over large farms as long as farm labour is cheap (because the opportunity cost of labour is low) and relatively abundant. But, he perceives that the potential superiority of small farms in terms of economic efficiency may be offset by various differentiation factors that give large farms a differential and artificial advantage over small farms due to the non- availability of divisible innovations to the poor. In a thickly populated labour abundant country, lack of divisible innovations does not provide differential advantage to large farms.

On the contrary, Johnston and Tomich (1985) underscore that, to a considerable extent, the tendency to extol the superior efficiency of large farm units is motivated by special interest groups that stand to benefit from a dualistic pattern of development.[5] The rent seeking activities of private enterprises as a lobby obligate the government to show favouritism to one group and impinges the social welfare (Krueger 1974).[6] The unstable ruling regime also views the prevalence of larger proportion of the population consisting of individual farm households as a threat to the maintenance of power. In line with this, Colander (1984) in his Neo-Classical Political economy makes the powerful pragmatic assumption that the state, far from being an exogenous force, is at least partially endogenous and the policies it institutes will reflect vested interests in society. In a modernised society, people tend to be rational individuals even while supporting the group interest. As Olson (1965 & 1982) observes, though a group of individuals have some interest in common, the rational individuals place their personal interest above the group interest even in the distributional coalitions. The proliferation of such coalitions in stable societies inevitably expands the role of government and the complexity of regulations to foster a higher rate of growth by placing the society inside a higher production possibility frontier (Srinivasan 1985).[7]

In his 'logic of choice'[8] polemics, Olson underscores that "economic theory is relevant whenever actors have determinate wants or objectives and at the same time do not have such an abundance of the means needed to achieve these ends that all of their desires are satisfied. The ends in question may be social status or political power and the means will be anything that is in fact conducive to the attainment of the ends whether or not these means can fetch a price in the market. This means that economic (precisely microeconomic) theory is in a fundamental

sense more nearly a theory of rational behaviour than a theory of material goods". While facing monopolies harmful to their interests, people form 'sophisticated' variant type of small groups with specific goals to enhance their bargaining power. Since this type of pressure groups continue to exist in all the polities both western democracies and developing countries, the public choice theorists identify the factors determining the success or failure of these interest groups as common. Thus equilibrium between rent seeking and pressure groups is considered to be the major pillar of development in the framework of New Political Economy.[9]

In the open economy, the existence of interest groups and pressure groups is not identified with hostility to the state. Pareto relevant externalities, as Buchanan and Stubblebine envisage, are said to be there when in a competitive equilibrium, the marginal conditions for optimal resource allocation and hence, for Pareto efficiency are violated. This situation necessitates the collective action of pressure groups to force government intervention through resistance and accommodation, not conflicts but harmony. Mill recommends authoritative interference in cases like market failure, externalities in the provision of merit goods and intermediate goods like basic education and public services, relief of poverty and so on. According to Classical liberalism (Smith, Hume, Hayek), a good government is one which promotes opulence through a policy of promoting natural liberty by establishing 'laws of justice' which guarantee free exchange and peaceful competition. Egalitarianism was not considered as the norm for deriving principle of public policy. Many economic historians (Hicks 1969; North 1981) argue that the European growth miracle of the 18th and 19th centuries is directly related to the creation of property rights broadly associated with the market economy. Similarly, in the Indian context also, the widespread practice of exploitative land tenure systems ostensibly in the pre-independence era and disguised in the post-independence period with no demesne on land to the cultivators was essentially identified as the major factor for all the economic evils in India.

The complexity of human affairs is, therefore, the result of 'social construction'[10] of human reality. Hirsch (1977), in his "Social Limit to Growth", challenges the promotion of self-interest, spontaneous harmony, efficiency, growth and prosperity[11] while elucidating the extremely complex and constantly dynamic nature of human and social activity. This could be untangled only through perceiving the interaction, both economic and social, between diverse groups in maximising their welfare both individual and group. Thus, the interpretation of the relationship between government, individuals and the limits of collective activities in the economic realm would transpire the complexities and dynamics of the socially constructed world.

The Liberal Political Economists,[12] though against egalitarianism and governmental intervention in the distribution of wealth, assert that substantial inequalities in disposable income will distort the pattern of effective demand within

the market. And it would draw productive resources towards the satisfaction of the needs and wants of the wealthier members of society at the expense of the requirements of the poor. The Marxian Political Economists who subscribe to methodological holism and analytical collectivism underscore that economic inequalities are inevitable consequences of the relations of production in which the few who own the means of production expropriate 'surplus value' from those who actually operate the means of production. Such intensification of inequalities leads to political alienation of the proletariat from the capitalist order leading to conflicts in society. These inequalities and distributional conflicts would become a stumbling block to socially desirable development.

In the context of achievements of green revolution in India, Mencher (1974) observes that conflicts (between the landed and the landless) and contradictions (goals of production and distribution of wealth) in the green revolution would have been prevented to surpass the goals of green revolution by resorting to effective implementation of land reforms prior to the green revolution era. The technological forces not only reinforced but also accelerated the dual tendencies of agrarian change (economic impetus for large farmers and economic insecurity for the small peasants). And it necessitated the revision of old land reform laws (Ladejinsky 1970; Frankel 1969; Joshi 1974; Mencher 1974). Similarly, a plethora of studies have postulated the uneven spread of agricultural growth, in space and across size classes, and its upbringing of unbridled inequality. A deeper treatment of the underlying sources of uneven growth suggests the crucial importance of public investment and the distorting effects on the increasingly unequal distribution of land and wealth (Byres 1998; Rao 1986).[13] Neo-Marxian and Structuralist studies manifest that resource allocation cannot be separated from wealth distribution or production organisation. And the social relations of production may inhibit accumulation and determine the forms of technological change (Rao 1986).[14] The unbalanced growth in agriculture thus bears the proclivities of stretching the inequalities further and disturbing the resource allocation.

With the advent of 'growth with social justice' slogan in the Fourth Five Year plan in India, the two major planks of consensus among policy makers and scholars were reached. One was public investment on supplying major infrastructure to mobilise growth potential. And secondly, redistribution of land to the direct cultivator or labourer and creation of co-operatives so that growth benefits would be spread among the population at large. Thus, the interdependence of agrarian inequalities and the poor growth in agriculture has been debated threadbare in the mode of production polemics. Ultimately, the structural inequalities and production relations were found to be critical to the development of productive potential (Rao and Storm 1998). Thus, the arguments clearly envisage that the prevalence of inequality can double-cross growth by aggravating inequalities and full or optimum

utilisation of potentials. Thus, it necessitates perforce the ownership of a large number of small farms to realise the drive towards growth.

In addition, the prevalence of innumerable social norms and social institutions continues to determine the individual and collective action of the farmers in the process of fostering agricultural growth (Bardhan and Rudra 1986). Myrdal (1968:766) states that "... all social mechanisms in India operate mainly in accord with the power structure. India is ruled by compromises and accommodations within and between upper upper-class and the various other groups that constitute the bulk of the upper class. The fact that members of the upper class call themselves, and believe themselves to be, "middle class" is not without significance. ... In public discussions, it is commonly argued that greater consideration for the "middle class" would forward the cause of equality". Brecher (1959)[15] observes that lack of radical deeds to follow through changing institutions was one of the reasons for the slow progress in land reforms and less than pledged social and economic change. This insinuates that the conservative social norms and weapons of the weak or subsistence proof social institutions come in the way of realising the rhetoric or ideals in land reforms programmes and as a result in the social and economic transformation.

It portends the need for intransigent commitment of the state in reforming the irrational social norms and unyielding social institutions in the incipient development. Classical economists expound that redistribution of or social control over the asset is the key to reduce the transaction costs. Marxists tend to believe that the reduction of transaction costs requires equalisation in access to and control over assets. The neo-classicals also emphasise that transaction costs can be reduced by perfecting markets (extension of property rights) and by more effective contractual arrangements (institutions) (Krueger 1992; de Janvry and Sadoulet 1989).[16] The theory of collective action views the state as activated by the constellation of interest groups. The competition among large number of rent seeking interest groups precipitates the reduction of overall social welfare, for each group seeks to promote its own welfare. de Janvry and Sadoulet (1989) conclude that " ... if either distribution of land ownership is made more equitable via land reforms or the state moves towards more democratic forms of decision-making, the resulting equilibrium technological bias, by being closer to the states own optimum, will imply both greater equity and greater efficiency."

The discussion of the rhetoric of land reforms thus holds that the rational action by individuals, healthy competition among interest groups for a broader common goal and democratic form of decision-making of the state would help to foster a desirable growth with greater equity. The prevalence of a large number of modernised small peasant farms would effectuate efficiency in the production process by reducing the transaction costs.

Achievements of Land Reform Measures

The performance of land reform measures has been analysed in two ways, viz., achievements in land reform proper and achievements in land settlement by looking at the progress of the implementation of old ceiling laws and the revised ceiling laws.

The ceiling limits of landholding in different states are consistent with the national guidelines suggested by the Union Government. The upper limit provided flexibility in the revised land ceiling laws in almost all the states.[17] The severe droughts in the late sixties (1965-66 and 1966-67) and the resultant national food insecurity and the food insecurity of the poor necessitated the revision of the distributional considerations of the Union government to reduce the regional and class inequities. As a part of this, the ceiling on surplus land was lowered to economic size (Rao 1986). But the classification of land into different categories like irrigated land with one crop, two crops and dry land extended scope for evasion and corruption in declaring the category of land due to non-availability of proper updated land records in many states. The consideration of providing exemption to the cultivation of horticultural crops from land ceiling limits as part of the liberalisation process clearly would wind up the land reform proper measures. This is because it may not be difficult to get the large farms declared as horticultural cropland with the connivance of knowledge-proof revenue officials by cultivating a few horticultural crops on the bunds. In the revised ceiling limits**,** most of the states had removed the limit range aspect of the land ceiling. Instead, while some states considered the lower limit suggested as the only ceiling, some had chosen the upper limit and the others opted for the mean of the range in accordance with the ideational and structural form of the states. For instance, Kerala and West Bengal governments had opted for the lower threshold ceiling limits and strictly implemented it.

In conformity with the different ceiling limits followed and the seriousness shown in the proper implementation of land reform measures, the achievements also exhibited difference from state to state and from old ceiling laws to revised ceiling laws. The achievements of land reform proper measures on area distributed and number of beneficiaries in the old and revised land ceiling laws have been shown in Table 1. It indicates that the achievements under old ceiling laws are not as expected to correct the anomalies existing in the structural distribution of land holdings. The achievements in some of the big states that contribute a major share to the National Income and form a considerable geographical area are cursory during the old ceiling laws. The southern states, in particular, did not show any progress. But the opposite of this was noticed in the revised land ceiling laws. Assam, Haryana, Madhya Pradesh, Maharashtra, Rajashtan, Uttar Pradesh and

Table 1: Land Reform Achievements in India (Area in Acres) as Percentage of Total

STATES	Area Distributed			Number of Beneficiaries			Achievements as on Nov.1995			
	Old Ceiling	Revised Ceiling		Old Ceiling	Revised Ceiling		Returns	Returns	Declared	Taken
	Period	1981-82	Up to Nov'95	Period	1981-82	Up to Nov'95	Filed	Disposed	Surplus	Possession
Andhra Pradesh	0.04	16.22	10.91	0	15.69	10.15	27.81	28.11	10.87	9.61
Assam	4.05	17.38	9.63	5.55	19.79	8.72	1.37	1.34	8.28	8.78
Bihar	0.06	7.28	5.83	0	10.78	7.34	3.40	3.42	6.60	6.35
Gujarat	2.22	0.22	2.58	1.33	0.07	0.62	3.64	3.67	3.13	2.42
Haryana	5.74	0.92	1.68	3.12	0.37	0.54	1.82	1.83	1.30	1.34
Himachal Pradesh	0.01	0.19	0.06	0.08	0.35	0.09	0.17	0.17	3.82	4.29
Jammu & Kashmir	22.80	0	8.71	0	0	8.94	0	0	6.16	6.86
Karnataka	0	2.86	2.30	0	0.77	0.61	8.78	8.80	3.80	2.53
Kerala	0	2.86	1.24	0	6.43	2.87	4.48	4.47	1.86	1.45
Madhya Pradesh	1.97	4.34	3.58	0.77	2.43	1.43	15.08	15.16	4.58	4.55
Maharashtra	8.56	15.65	10.85	2.85	6	2.79	6.68	6.73	9.87	10.09
Manipur	0	0	0.03	0	0	0.02	0.01	0.01	0.02	0.03
Orissa	0	5.58	2.96	0	5.94	2.65	3.59	3.59	2.37	2.52
Punjab	4.27	0.60	1.98	1.99	0.22	0.53	3.45	3.49	1.78	1.61
Rajasthan	10.66	6.77	8.57	2.92	2.03	1.54	5.48	5.47	8.12	8.51
Sikkim										
Tamil Nadu	2.11	3.08	3.06	2.69	2.67	2.62	1.51	1.37	2.57	2.61
Tripura	0	0.05	0.03	0	0.06	0.03	0.10	0.11	0.03	0.03
Uttar Pradesh	8.79	12.71	7.42	5.01	14.56	6.67	6.00	6.02	7.42	7.94
West Bengal	28.70	3.06	18.42	73.68	11.64	41.73	5.72	5.41	17.19	18.33
All India**	19,73,759	17,99,525	51,68,411	11,08,108	12,82,458	50,33,310	15,99,428	15,82,397	73,95,124	65,58,101

** Figures for India are in absolute numbers.

Note: The proportions are computed vertically. That is why the area taken possession is higher than the area declared surplus. The higher area taken possession than the declared surplus also indicates the sincerity of the particular state government in implementing the land reforms.

West Bengal recorded consistently remarkable achievements in comparison with other states in all the components. Interestingly, West Bengal, Tamil Nadu, Karnataka, Kerala, Madhya Pradesh, and Rajasthan have 82.79 per cent of the aggregate returns pending cases. This substantiates the seriousness shown in the proper implementation of land reform measures in these states.

Akin to this, the distribution of beneficiaries of land reforms also highlights the spectacular performance towards social justice. Table 2 discloses that social justice principle suggested in the national guidelines has been sincerely followed in the distribution of number of beneficiaries. But, in the area distributed to beneficiaries, it shows less than the suggested norm to Scheduled Castes and Scheduled Tribes. This underscores the sly disparities shown by the implementing agencies with their traditional attitude of superciliousness towards the rural poor and their mental affinity with the rural landed gentry in the distribution of area taken possession of through land reform measures. Though in the number of beneficiaries most of the states reported more than 50 per cent SC and ST beneficiaries, only a few states recorded above 50 per cent of the area distributed through land reforms among these vulnerable categories.

Santhanam Committee on Corruption observes that where there is power and discretion, there is always the possibility of abuse, more so when power and discretion have to be exercised in the context of scarcity and controls and pressure to spend money. The folklore of corruption in Asian Drama raises the question "Is there any general asociality that leads people to think that anybody in a position of power is likely to exploit it in the interest of himself, his family, or other social groups to which he has a feeling of loyalty?" The social fabric of public administration thus continues to determine the deliverance of benefits of public programmes. Invariably in India, the higher echelon of society continues to occupy the seat of power as determined by a number of committees and studies.[18] Similar discrimination on the basis of race relations has been established in the American Dilemma of Myrdal. The Mandal Commission and Kaka Kalelkar Reports on Backward Classes have pointed out the poor representation of Other Backward Classes and Scheduled Castes and Scheduled Tribes in the government services, particularly in plum positions. It is also established that the bureaucrats in India are clearly in a position to influence if not determine policies. While not all bureaucrats (in collusion with sections of political elite) are engaged in corrupt and rent seeking activities, there is evidence that these are widespread (Pedersen 1992). A host of studies have established that more than two-thirds of all Hindu IAS officers and three quarters of all officers are Hindus belonging to the upper castes, or "middle classes" or "intermediate classes", the largest group being Brahmans (Potter 1986; Frankel and Rao 1989; Khan 1989; Goyal 1989; Reddy 1989).[19] Thus, the social relations, self-interest and their own group interests of bureaucrats with the collusion of other rural elite favoured their own groups.

Table 2: Distribution of Beneficiaries of Land Reforms in India (Area in Acres)

STATES	Area Distributed to Beneficiaries						Number of Beneficiaries					
	SC		ST		Others		SC		ST		Others	
	1981-82	Nov 1995	1981-82	Nov 1995	1981-82	Nov 1995	1981-82	Nov 1995	1981-82	Nov 1995	1981-82	Nov 1995
Andhra Pradesh	47.52	40.00	18.80	20.48	33.68	39.52	49.64	41.89	15.00	15.57	35.36	42.54
Assam	7.74	9.08	9.69	11.68	82.58	79.25	8.19	9.77	7.04	9.44	84.77	80.79
Bihar	41.07	59.09	11.60	13.03	47.33	27.88	54.23	61.66	11.21	11.45	34.56	26.89
Gujarat	76.14	62.06	6.13	21.83	17.73	16.03	81.34	45.22	4.78	41.98	13.88	12.80
Haryana	48.61	43.19	0		51.39	56.81	48.77	42.89	0		51.23	57.11
Himachal Pradesh	74.66	69.01	3.57	4.16	21.77	26.83	75.03	66.68	1.72	5.93	23.25	27.39
Jammu & Kashmir	0	0	0	0		0	0	0	0	0	0	0
Karnataka	54.10	61.13	7.38	2.76	38.52	36.11	52.90	59.80	7.76	2.82	39.34	37.38
Kerala	36.05	39.19	7.82	8.04	56.13	52.77	39.85	42.83	5.93	5.14	54.22	52.03
Madhya Pradesh	24.90	26.68	49.10	39.70	26.00	33.62	28.36	29.85	42.78	37.43	28.87	32.73
Maharashtra	32.78	28.83	18.14	17.46	49.09	53.71	31.76	29.82	20.39	20.77	47.86	49.41
Manipur		7.61	0	5.77		86.62		7.63		5.72		86.65
Orissa	30.77	31.81	43.33	41.91	25.90	26.28	33.36	34.35	39.34	37.09	27.30	28.57
Punjab	46.65	40.80	0	0	53.35	59.20	46.99	37.80	0	0	53.01	62.20
Rajasthan	35.11	31.43	11.72	9.93	53.17	58.63	41.05	36.56	15.06	13.88	43.89	49.55
Sikkim	0	0	0	0	0	0	0	0	0	0	0	0
Tamil Nadu	30.11	38.95	0.02	1.48	69.87	60.90	43.18	44.48	0.04	0.14	56.77	55.38
Tripura	23.04	13.58	16.28	28.04	60.68	58.39	23.38	17.98	16.28	25.21	60.34	56.81
Uttar Pradesh	59.69	67.76	0	0.35	40.31	31.89	73.82	67.45	0	0.23	26.18	32.32
West Bengal		37.20		19.28		43.52	40.97	37.18	18.91	19.40	40.12	43.43
All India**	34.52	34.57	14.40	13.98	48.02	51.45	40.99	35.94	12.63	14.17	46.38	49.89

Note: The figures are in percent to the total number and area distributed to the beneficiaries. The total includes institutional beneficiaries and area distributed to them. Hence, in some states it does not add up to 100 as we do not have the institutional beneficiary category like religious institutions, schools and other village institutions.
Source: Annual Report of the Ministry of Rural Development, Various issues.

Moreover, the interest groups like landlords associations and their rent seeking activities entice the bureaucrats to show a soft approach towards them. This precipitates the surreptitious discrimination against the SC & ST beneficiaries by allotting lesser land, which are increasingly marginal lands. A Review by the Planning Commission observes that "... the general attitude of the administration has been of apathy in the matter of implementing measures of land reforms. ... the lower echelons of revenue administration are often ignorant of the legal provisions and are also under the sway of substantial land owners who have a vested interest in evading the enacted laws" (Desai 1986: 57).

Surprisingly, the North-Eastern states that have got sizeable tribal population reported a quarter of beneficiaries, as from SC and ST categories. While Gujarat, Himachal Pradesh, Karnataka and Uttar Pradesh had recorded above 50 per cent beneficiaries from the SC category alone, only Madhya Pradesh and Orissa had shown above a third of the beneficiaries from ST category. It also reflects the representation of the categories in the total population with the exception of North-Eastern states and Himachal Pradesh. In Karnataka, out of the 29 per cent of the total net sown area for which declarations were filed under ceiling surplus land, only 1.10 per cent of the net sown area was actually declared surplus. The rest was disposed of by the tribunals or in litigation. Thimmiah and Aziz [20] observe that each time there was a change in government, reconstitution of the land tribunals followed keeping the spirit of spoils theory. But the higher proportion of SC beneficiaries manifest the representation of local subaltern leaders in the tribunals. The disparities between the proportion of number and area distributed to beneficiaries indicate unambiguously the negative attitude shown towards subaltern classes by the third dominant class which are dominated by Caste Hindus and the other two dominant classes, viz., rich peasants and indigenous industrialists.

In addition to these land reform proper measures, the land settlement measures followed also had indicated a noticeable progress towards peasantisation process. The major components of the land settlement measures are distribution of wasteland and *Bhoodan* land, consolidation of holdings, ownership rights to tenants and restoration of alienated tribal lands. Similar to the land reform achievements, the land settlements also display a noticeable achievement in all its components. For instance, Andhra Pradesh, Bihar, Gujarat, Karnataka, Maharashtra, Orissa and Uttar Pradesh have shown impressive results in one or other components of land settlement. In the case of *Bhoodan* land, Bihar has shown a remarkable performance by recording almost half of the total land donated under the movement. But the same could not be noticed in the distribution of the donated land. This seems to explain the lack of interest shown by the officials in distributing the land though the people came forward to donate the land in Bihar. In the distribution of Bhoodan land, Uttar Pradesh and Orissa had shown much interest in comparison with other states.

Maharashtra has testified to a noticeably impressive performance in the consolidation of holdings. This could be attributed to the sincere implementation of the Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947. In the case of ownership rights to tenants, Kerala and Assam, though they constitute a negligible proportion of geographical area, have exhibited more than half of the achievements made in the number of tenants given the right in India. But, in the area brought under ownership to tenants, Maharashtra is on the top, leaving all other states far behind. This is mainly because of the total abolition of tenancy for more than a year and making tenancy in whatever form illegal in Maharashtra through a

number of Amendments to Bombay Tenancy and Agricultural Lands Act, 1948, which is one of the well recognised Acts in Agrarian Legislations in India for its neat formulation, clarity in implementation and success in achievement (Rajasekaran 1996, 1998). A similar Act was working in Karnataka too. That is why the ownership granted area in Karnataka is next to Maharashtra though the conferred number is relatively less. In the case of tribal land restored too, Maharashtra has shown better results than other states though the land alienation as such is noticeably lower in comparison with Orissa, Madhya Pradesh, Bihar and Andhra Pradesh (Table 3). Though the land alienated in Maharashtra is only a tenth of the total in India, the land restored comes to a fifth of the aggregate land restored in India. The tribal land alienation is noticeable in the Northern and Eastern states. In the South, Karnataka has shown a considerable tribal land alienation because of the encroachment of the tribal lands by others for plantation crops in Western Ghats region, particularly Mysore, Hassan and Shimoga districts. Similarly, in Andhra Pradesh, the restoration of alienated tribal land is widely identified with Girijan and Naxalite movements in the state. Most of the people from the tribal belts support strongly these movements due to this rampant land alienation. A similar trend could be noticed in Bihar. Even then the land restored and taken possession of do not show any positive response from the government due to lack of organised movements. In other words, it transpires the insensitivity of the political leaders. This has aggravated or encouraged of late the upsurge of Ranvir Sena type of private armies of landlords to engage in the mass killings in quick succession. Thus, it appears clearly that through better implementation of the restoration of alienated tribal lands and strict restrictions on further alienation of tribal lands, the atrocities on tribals also could be marginalised as it has been proved in the case of Maharashtra.

Moreover, as part of the land reform measures the central government has made available financial assistance to the assignees of ceiling surplus land on equal share basis with the states. Since most of the beneficiaries are downtrodden, they are not in a position to meet the initial investment on the allotted land, which were increasingly marginal lands and cultivable waste. It is found that Andhra Pradesh, Bihar, Maharashtra, Rajasthan and Uttar Pradesh had taken the major chunk of central assistance (Rajasekaran 1996). Since financial obligation of the assistance is shared equally between the centre and states, the higher share from the centre implies the higher allotment from the states too. It manifests the sincere interest shown by the states on land distribution or nationalist ideals. But when it is read with geographical area of these states, it insinuates that mere size of the state would have been the reason for the higher share. When figures are standardised approximately on the basis of percentage of geographical area to the total, these states still show the higher share than the other states. In the utilisation of assistance also, these states, save Andhra Pradesh and Bihar, have displayed above 90 per

Table 3: Land Reforms Achievements in India as on November 1995
(Area in Lakh Hectares and Beneficiaries in Lakh)

STATES	Distribution of	*Bhoodan* Land		Land Consolidation		Tenants		Tribal Land		
	Govt. Wasteland	Area Donated	% of Area Distributed	Proposed Area	Area Consolidated	Conferred Number	Ownership Area	Alienated Area	Restored Area	Possession Given
Andhra Pradesh	23.76	4.27	52.00	0	0	0.95	3.27	32.39	12.05	23.23
Assam	2.93	0	0	0	0	25.71	20.68	0.73	0.09	0
Bihar	7.62	46.10	33.19	4.42	2.96	0	0	14.45	8.34	10.61
Gujarat	10.79	0.74	79.41	3.46	4.11	11.26	18.82	1.88	1.41	23.58
Haryana	0.02	0.04	100	4.81	6.25	0.20	0.57	0	0	0
Himachal Pradesh	0.13	0	0	2.17	1.19	3.54	0	0	0	0
Jammu & Kashmir	0	0	0	0.06	0.07	0	0	0	0	0
Karnataka	10.72	0.24	45.45	0	1.07	5.35	17.14	18.15	13.06	16.80
Kerala	3.57	0.04	50.00	0	0	25.12	9.44	0	0	0
Madhya Pradesh	1.34	8.92	63.41	24.20	12.89	0	0	8.83	9.31	0
Maharashtra	7.99	2.39	75.45	27.84	33.48	13.19	30.09	0	20.30	24.57
Manipur	0.25	0	0	0	0	0	0	0	0	0
Orissa	5.19	13.91	90.76	2.19	1.19	1.33	0.61	0	11.08	0
Punjab	0.86	0.11	20.00	5.51	7.27	0.09	0.33	0	0	0
Rajasthan	0.73	13.19	38.94	0	2.53	0.16	0	0.20	0	0
Sikkim	1.62	0.52	87.50	0	0	0	0	0	0	0
Tamil Nadu	1.03	0	0	0	0	0.12	0.03	3.24	1.05	1.22
Uttar Pradesh	17.41	9.51	96.33	25.33	26.99	0	0	0	0	0
West Bengal	3.38	0	0		0	12.91	0	0	0	0
All India**	99.38	100	53.16	100	100	100	100	100	100	100
	127.97	45.94	24.42	2252.9	1673.9	113.12	153.56	7,07,945	5,19,719	4,04,013

Note: Totals are in absolute figures.

** While the first row indicates the aggregate percentage, the second row presents the aggregate absolute figures.

cent utilisation, which is noticeably higher than the national average. Surprisingly, in the nineties it was totally discontinued in conformity with the growth-oriented liberalisation measures. It also insinuates the indifference of the state towards the land reform measures in the context of liberalisation.

On the whole, the analysis of achievements of land reform measures indicates that Andhra Pradesh, Bihar, Kerala, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal have shown impressive achievements in one or the other components of the land reform measures. With approximate standardisation for the differences in the total geographical area of the states, Andhra Pradesh, Assam, Jammu & Kashmir, Kerala, Maharashtra, Rajasthan, Tripura and West Bengal have reported amazing achievement in the land reform measures. Karnataka has displayed exemplary performance in the revised land ceiling period. Most of the states had shown impressive progress during the revised ceiling law period particularly in the eighties. In the distribution of land to different categories of beneficiaries, most of the states had revealed their partisan attitude by devoting more area to the 'other category' beneficiaries. Interestingly, the North-Eastern states and the southern states, which advocated strongly the principle of social justice, like Tamil Nadu and Kerala have displayed lesser proportion of beneficiaries from SC & ST categories than the prescribed norm. Nevertheless, all the states that had shown spectacular performance in the land reform proper measures had also followed the norms of distribution assiduously. Even then, in the aggregate, while 52 per cent of the beneficiaries belong to SC & ST categories, the area distributed to these categories constitutes only 48 per cent of the total area distributed. This highlights the subtle partisan attitude of the implementing authorities or the third dominant class.

In the case of land settlement measures, all the states divulge noticeable variations in progress. While Andhra Pradesh, Gujarat, Karnataka and Uttar Pradesh have registered a higher distribution of government wasteland to the landless people, Bihar had donated almost half of the land received through *Bhoodan* Movement, and Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh followed suit. In the case of consolidation of holdings, Maharashtra, Madhya Pradesh, Haryana and Gujarat had evinced a perceptible performance. In conferring ownership rights to tenants, Maharashtra, Assam, Kerala, West Bengal and Karnataka had achieved total or near total abolition of tenancy in whatever form and absentee landlords. To cap it all, in the abolition of tribal land alienation and restoring the alienated land too, most of the same set of states exhibited noticeable advances. Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa and Tripura reported considerable tribal land alienation and exhibited diligence in restoring the alienated lands. A similar trend could be noticed in the financial assistance to the assignees of ceiling surplus lands from the centre.

Thus, it indicates that every state has evidenced a noticeable performance in at least one of the components of land reform measures depending on the degree

of the problem in the particular component. Holistically, Maharashtra, West Bengal and Kerala have put on appreciable achievements in most of the components of both land reform proper measures and land settlement measures. Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa and Uttar Pradesh have also displayed better performances in both the measures. The land tribunals and bureaucrats who are responsible for the acquisition and distribution of ceiling surplus land have come in the way of the success of land reforms by succumbing to the social relations, political pressures and rent seeking activities of the "middle class". On the whole, the achievements of land reform measures appear to be very rosy, for the data have been gathered from the government published sources. But how far it could make an impact on the agrarian structure is an important issue to see the actual achievement of the reform measures. This has been analysed at the national level across states.

Impact of Land Reform Measures

The impact of four decades of serious implementation of land reforms could be noticed in the agrarian structure in India as a whole. The mobility in the hierarchy of peasantry, which is noticeable from large capitalist peasants to marginalisation of peasantry and peasantisation has brought centripetal tendencies in the agrarian structure (Rajasekaran 1996). The distribution of operational holdings both number and area operated for all states show that at the end of old ceiling limits implementation, i.e., 1970–71, the marginal and small farmers having around two-thirds of the total number of operational holdings had only a fifth of the total area operated. Interestingly, in the subsequent periods, with the revised ceiling laws under implementation, the share of marginal and small farmers in both the number and area operated to the total operational holdings had increased remarkably. In the 1990–91 Agricultural Census, around three-quarters of the total operational holdings were marginal and small peasants and they operated nearly a third of the total area operated. Against this, during the same points of time, the large farmers have lost their share in both number and area operated as the feudal system or absentee landlord system being abolished totally at least by law in most of the states. While the number of operational holdings in the above 10 hectares category declined from 3.9 per cent to 1.58 per cent, the area operated declined from 30.88 per cent to 17.45 per cent of the total operated area during the same period.

The distribution of operational holdings across the states shows the significance of land reforms and the political interest in the implementation of land reform measures. Kerala, West Bengal, Tripura, Jammu & Kashmir, Uttar Pradesh and Tamil Nadu have recorded more than or close to 90 per cent of the holdings as marginal and small farms. Particularly, Kerala's land reforms achievements is conspicuously total with 97.5 per cent of the holdings in the marginal and small farms category covering 70 per cent of the area operated and the rest of the large

farms remain mainly in the form of institutional holdings. One more interesting thing to note in Kerala is that while the number of marginal and small farmers increased by 3 per cent during the study period, the area operated increased by over 12 per cent. It could mean that in addition to marginalisation and peasantisation, the marginal and small farmers have been able to increase their size of farm by purchasing part of the land of medium or large farmers. This shows a clear trend of marginalisation of peasantry. It also transpires the success and viability of small farms. This also manifests as discussed earlier that the redistribution of land will help to reach the optimum size farms through commoditisation of land in demesne and efficiency of the ownership holdings. As most of the large farms are in joint holdings or institutional holdings, above 80 per cent of the holdings under marginal and small farms insinuate a total achievement of land ceiling laws or total achievement of equality in distribution. Contrary to this, Punjab, Rajasthan, Gujarat and to some extent Haryana have exhibited a lesser proportion of number and area under marginal and small farms. This seems to suggest that complete Western Belt states did not attach adequate attention to land reform measures. It also could be attributed to the very high lower threshold ceiling limits in almost all the four states. This unambiguously explains the importance of the ceiling limits followed and other land settlement programmes implemented in the mobility of agrarian structure. Among the North-Eastern states, only Nagaland exhibited a very low proportion of small farms. Another thing is that barring Assam all the Eastern states have reported reduction in the proportion of marginal and small farms. It could be because of the higher intensity of tea plantation units in these states. Among the Southern states, Karnataka shows very high disparities in the distribution. This may be explained through the very less area under assured irrigation and the higher ceiling limit for the dry land. The exceptional case is Maharashtra. It has registered more than 20 per cent increase from 42.83 per cent to 63.39 per cent in the number of marginal and small farmers, and 18 per cent increase in the area operated as well during the revised ceiling law implementation period. This could be conspicuously related to the sincere implementation of land reform proper measures and land settlement measures. Thus, the mobility in the agrarian structure in different states could be unequivocally attributed to the different land reform measures followed in the states.

The growth rates of the number of operational holdings and area operated across different categories of farmers have been presented in Table 4. It shows that while considerably higher positive growth rates in the number of operational holdings have been noticed in all the states, save Punjab, the area operated has not registered matching growth rates across states. While all the North-Eastern states as well as Karnataka, Kerala and West Bengal have reported significant positive growth rates in the area operated, Bihar, Maharashtra, Orissa, Tamil Nadu and Union Territories have shown negative growth rates. Though the increase in area operated could be attributed

Table 4: Growth Rates of Number of Operational Holdings and Area Operated Across States

STATES	Number of holdings						Area operated					
	0-1	1-2	2-4	4-10	10 <	All	0-1	1-2	2-4	4-10	10 <	All
Andhra Pradesh	3.956	3.191	1.788	-0.521	-3.433	2.814	4.122	3.129	1.634	-0.755	-4.031	0.233
Assam	1.242	0.791	0.846	-0.168	-1.444	1.015	0.718	0.699	0.748	-0.496	0.160	0.438
Bihar	3.023	1.108	0.194	-1.707	-4.774	2.177	2.951	1.054	0.129	-1.838	-5.271	-0.373
Gujarat	2.345	3.432	2.324	0.455	-3.375	1.809	2.493	3.438	2.229	0.217	-3.235	0.072
Haryana	4.825	3.053	2.624	0.365	-2.292	2.746	4.689	3.302	2.508	0.032	-2.597	0.381
Himachal Pradesh	2.329	1.537	0.385	-0.441	-0.910	1.723	2.656	1.318	0.313	-0.585	-2.865	0.313
Jammu & Kashmir	1.369	1.686	0.533	-1.105	-2.390	1.286	0.930	0.828	0.318	-1.239	-0.526	0.402
Karnataka	3.768	3.389	2.068	0.129	-2.651	2.521	3.404	3.362	1.989	-0.117	-3.049	0.415
Kerala	3.617	2.222	-1.212	-1.579	-1.502	3.397	2.273	0.169	-1.456	-1.822	-0.397	0.515
Madhya Pradesh	3.249	3.994	2.496	0.452	-2.094	2.373	3.507	3.899	2.298	0.249	-2.442	0.218
Maharashtra	5.080	5.972	3.575	-0.213	-5.453	3.379	5.451	6.051	3.134	-0.481	-5.783	-0.019
Manipur	3.127	1.510	2.488	5.423	Nil	2.439	3.315	2.284	2.898	5.939	5.302	2.919
Meghalaya	0.301	-0.863	1.065	2.867	5.232	0.353	-0.663	-1.229	0.779	3.109	6.059	0.656
Nagaland	1.205	1.484	-0.109	2.386	4.783	2.119	0.452	1.788	-0.018	2.449	4.199	3.098
Orissa	1.739	-0.609	1.094	-2.359	-5.765	0.614	1.429	-1.037	0.541	-2.574	-5.540	-0.986
Punjab	-3.883	-1.486	0.195	0.264	0.224	-1.43	-2.426	-0.953	0.300	0.309	0.283	0.062
Rajasthan	2.083	1.914	1.569	1.228	-0.218	1.491	2.104	1.869	1.485	1.182	-1.015	0.162
Sikkim	4.165	1.167	0.372	0.470	0.972	2.379	3.218	2.359	0.929	1.165	3.442	1.927
Tamil Nadu	3.280	0.791	-0.582	-1.739	-2.948	2.159	2.419	0.741	-0.620	-1.822	-2.469	-0.085
Tripura	1.616	1.878	0.629	-3.820	-10.09	1.436	1.793	2.551	0.756	-4.870	-2.647	0.869
Uttar Pradesh	1.764	0.734	-0.334	-1.487	-4.529	1.257	1.929	0.747	-0.368	-1.644	-4.695	-0.066
West Bengal	2.984	0.885	-0.919	-4.113	-6.362	1.982	3.181	1.416	-0.634	-4.029	-0.617	0.669
Union Territories	2.768	1.547	1.677	-0.324	-4.872	1.631	2.503	2.461	1.659	-0.669	-4.863	-0.836
All India	2.298	2.096	1.348	-0.223	-2.506	1.998	2.653	2.007	1.255	-1.037	-2.723	0.007

Note: The growth rates are calculated for the five agricultural censuses.

to the utilisation of marginal lands and public investment in infrastructure development in agriculture, the decline could be explained only through the development of the non-agricultural sector. Another interesting feature of the structural distribution is that while marginal and small farmers categories witnessed a positive growth rate, save Punjab, Orissa (small farmers) and Meghalaya, the medium and large farmers experienced noticeable negative growth rates in both number and area operated except Punjab, Manipur, Meghalaya and Nagaland. Talib (1986) asserts that the factor responsible for the situation in Punjab is a particular kind of power structure and the weakness of the peasant movement. [21]

The Gini-coefficients across states, as illustrated in Table 5, manifest a clear decline in the inequalities in the distribution of land. Some states like Assam, Haryana, Jammu & Kashmir, Madhya Pradesh, and Rajasthan have not shown any noticeable reduction in the disparities in the structural distribution of operational holdings. The North-Eastern states like Manipur, Meghalaya and Sikkim have shown up the widening inequalities. These states have not incidentally had any organised peasant movement activities. At the same time, the domination of feudal classes, coupled with lack of peasant movement activities, may have perhaps precipitated the slow decline in the inequalities in these states. As Charu Mazumdar emphatically puts it, "Land reforms in the interest of the peasantry are possible only when we are able to destroy the domination of feudal classes".[22] While the other states have displayed a modest decline in Gini values, Andhra Pradesh, Bihar, Kerala, Uttar Pradesh and West Bengal have registered a remarkable fall in the Gini values. Incidentally these five states witnessed the militant face of agrarian revolution. The Girijan movement of Srikakulam, Ryotanga Sangrama Samiti (CPI-M.L), Telengana Armed Struggle of peasants, Royalseema uprisings and also other post-green Revolution movements have played the role of pressure groups in the redistribution of land to a considerable extent in Andhra Pradesh.[23] Similarly, in Bihar, the Bihar Pradesh Kisan Sabha and Triveni Sangh, the two militant organisations, and Adivasi Bataidars Movements, Jharkhand Mukti Morcha have organised stiff struggles to force the government to implement the land reforms sincerely.[24] Even then the Gini values still continue to be high though the reduction is appreciable. Kerala and West Bengal have been under the stronghold of CPI(M)'s ideational perception and for some time Naxalbari, both of which had entrenched in the ideal of small peasantry norm. Similarly, in Uttar Pradesh also, the Land Grab Movement, organised by the poor and landless peasants in Eastern Uttar Pradesh, put considerable pressure on the government to implement land reforms seriously. Thus, it transpires that the organised movements and violent turn of their activities worked as catalyst in the implementation of land reform measures. This manifests that the insensitivity of the government could be broken with the weapon of people's sensitivities in the democratic governance. Unless people stand on guard for their rights and privileges, it amounts to endorsing the insensitivity of the political leaders.

Table 5: Gini- Coefficients of Land Distribution Across States

States	1970-71	1975-76	1980-81	1985-86	1990-91
Andhra Pradesh	0.600	0.576	0.552	0.548	0.530
Assam	0.530	0.526	0.528	0.530	0.530
Bihar	0.605	0.574	0.557	0.486	0.518
Gujarat	0.509	0.494	0.482	0.480	0.481
Haryana	0.526	0.546	0.538	0.540	0.527
Himachal Pradesh	0.577	0.554	0.540	0.514	0.520
Jammu & Kashmir	0.456	0.499	0.466	0.464	0.441
Karnataka	0.540	0.541	0.532	0.525	0.512
Kerala	0.542	0.502	0.497	0.402	0.451
Madhya Pradesh	0.569	0.561	0.560	0.557	0.548
Maharashtra	0.528	0.501	0.501	0.487	0.481
Manipur	0.312	0.330	0.352	0.352	0.334
Meghalaya	0.335	0.403	0.402	0.412	0.418
Nagaland	0.482	0.452	0.439	0.438	0.450
Orissa	0.491	0.465	0.463	0.470	0.447
Punjab	0.556	0.582	0.465	0.493	0.490
Rajasthan	0.593	0.604	0.591	0.580	0.580
Sikkim		0.516	0.517	0.568	0.585
Tamil Nadu	0.542	0.534	0.529	0.528	0.511
Tripura	0.490	0.471	0.438	0.382	0.449
Uttar Pradesh	0.549	0.532	0.519	0.504	0.476
West Bengal	0.477	0.459	0.458	0.431	0.413
Union Territories	0.612	0.605	0.596	0.577	0.566
All India	0.620	0.614	0.604	0.593	0.587

Notes: Agricultural Census data on Operational Holdings have been used.

Though this manifests the appreciable reduction in economic inequality in most of the states, the real issue is, to what extent it has contributed to the reduction in social inequality, for the land problem is more of social than economic inequality. The influence of land reform measures on reduction of social inequality has been analysed by looking at the proportion of number and area operated by SC & ST categories. Table 6 presents the proportion of number and area operated by SC & ST farmers for three censuses. After four decades of sincere implementation of land reform measures, only around 20 per cent of the holdings are operated by SC & ST categories together and 18.3 per cent of the area operated though they constitute around 25 per cent of the population. In some states, the proportions remain in single digit. This explains unequivocally the extent of prevailing inequality and

deprivation of the group as well as the condition before the land reform measures. Among the states, no state has reported more than 15 per cent of the area operated by these categories, save West Bengal, which has shown 19.7 per cent area under these categories. In the case of ST categories only Eastern states with the exception of Assam have reported more than 50 per cent of the area operated by ST category farmers though they form a sizeable proportion of the population in these states. Though Madhya Pradesh and Maharashtra have a relatively higher proportion of tribal population, the area operated by them is negligible. In addition, lands cultivated by them are, in general, marginal lands or sloppy lands, which make their existence all the more difficult to cope with during both monsoon and off-seasons. This also underscores the extent of inequality prevailing before the distribution of land through various land reform measures. In addition, this also insinuates the need for reduction in social inequality or social exclusion to galvanise the nationalist fervour, as the broader objectives of land reform measures suggest, among the majority of the population and to bring the feeling of oneness or social inclusion.

When we read Table 6 with Table 7, it elucidates that in line with the increase in the proportion of Scheduled Caste and Scheduled Tribe population, the area operated and number of holdings among the category tend to rise. Though the proportion of population and area operated seem to be matching in the case of Scheduled Tribe, there are perceptible disparities between the proportion of population and area operated across the states among the Scheduled Caste category. This indicates that Scheduled Castes undergo more discrimination than Scheduled Tribes. This could be observed from the proportion of population and the proportion of number of holdings as well as area operated among the Scheduled Caste groups. On the other hand, the higher proportion of area operated among the scheduled category population could be attributed to the utilisation of forest land and other marginal lands.

Thus, the findings indicate that though the economic inequality has been brought down to some extent through land reform measures (decrease in the size of holding and increase in the number of holdings), this has not made any noticeable impact on the reduction of social exclusion. It requires much more concerted effort in a country with culturally defined heterogeneous ethnic groups as the condition of lower rung social groups remains totally unsheltered and disheartening. The differences between the number and area distributed to the SC & ST beneficiaries testify to the discrimination surreptitiously practised by the third dominant class. In addition, it also indicates that the states have to look beyond political and economic reasons in the case of land distribution to keep the nation together and practice social inclusive measures. In addition, the state should be sensitive to the problems of the society. It should not stand awaiting the people's reaction like a mediocre onlooker. The government should identify the problems objectively and

Table 6: Distribution of Operational Holdings Among SC and ST Categories

STATES	Scheduled Castes						Scheduled Tribes					
	No. of Holdings			Area Operated			No. of Holdings			Area Operated		
	1980-81	1985-86	1990-91	1980-81	1985-86	1990-91	1980-81	1985-86	1990-91	1980-81	1985-86	1990-91
Andhra Pradesh	12.62	12.20	12.70	6.87	6.80	7.50	6.42	6.40	6.90	6.29	6.70	7.20
Assam	4.70	4.80	4.70	4.10	4.10	4.10	12.50	13.00	12.90	13.84	14.00	14.00
Bihar	8.16	11.50	11.60	4.51	5.50	5.20	7.54	7.80	7.80	16.25	17.10	16.10
Gujarat	4.06	4.90	4.10	3.08	3.60	3.20	10.92	11.10	11.00	8.05	8.70	9.10
Haryana	2.17	3.00	3.00	1.29	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
Himachal Pradesh	24.45	23.90	22.40	11.63	13.70	13.60	4.23	4.20	4.00	3.27	3.90	3.90
Jammu & Kashmir	6.96	8.20	7.00	7.38	9.70	7.90	0.00	0.00	11.20	0.00	0.00	13.30
Karnataka	8.49	10.20	11.00	5.99	7.20	8.10	3.71	3.70	4.90	3.47	3.40	5.00
Kerala	8.54	8.00	9.60	2.44	2.70	2.80	0.98	0.90	1.20	1.50	1.70	1.90
Madhya Pradesh	12.85	12.70	12.60	7.93	8.00	8.10	25.11	24.80	24.70	24.84	25.20	25.20
Maharashtra	6.81	8.00	8.00	4.48	5.50	6.00	6.02	6.80	6.80	6.08	6.80	7.30
Manipur	1.47	2.10	1.40	3.55	0.10	2.90	38.97	40.00	40.80	42.60	41.90	44.00
Orissa	12.17	13.50	13.70	7.86	8.60	8.60	27.58	26.90	26.60	29.90	29.40	28.70
Punjab	5.00	4.50	4.80	2.54	2.00	2.40	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	14.26	14.80	14.70	11.31	11.70	11.70	15.36	15.20	15.40	8.35	8.40	8.40
Tamil Nadu	7.84	11.40	11.30	4.92	7.10	7.10	0.67	0.80	0.80	1.01	1.10	1.20
Tripura	14.61	14.40	15.10	10.61	10.70	10.70	30.84	38.50	36.80	37.27	45.00	44.80
Uttar Pradesh	14.77	15.90	16.40	9.24	10.30	10.50	0.16	0.20	0.20	0.28	0.30	0.30
West Bengal	23.58	22.60	23.20	19.37	19.30	19.70	7.08	7.10	7.30	6.59	6.90	7.00
Meghalaya	0	0.00	0	0	0	0	100	100	100	100	100	100
Nagaland	0	0	0	0	0	0	100	100	100	100	100	100
Sikkim	1.79	0	0	1.83	0	0	30.36	32.40	32.10	37.61	36.30	43.20
Union Territories	1.00	0	0	0.46	0	0	46.00	0	0	63.72	0	0
All India**	11.31	12.30	12.50	7.03	7.70	7.90	7.71	7.80	8.10	10.20	10.50	10.80

Note: Figures are in percentage of the total number and area operated in each state.

Source: Agricultural Census Reports

Table 7: Distribution of Scheduled Caste and Scheduled Tribe Population across States

(In percent)

States/Union	Scheduled Castes		Scheduled Tribes	
Territories	1981	1991	1981	1991
Andhra Pradesh	14.87	15.93	5.93	6.31
Arunachal Pradesh	0.46	0.47	69.82	63.66
Bihar	14.51	14.56	8.31	7.66
Goa	2.05	2.08	0.07	0.03
Gujarat	7.15	7.41	14.23	14.92
Haryana	19.07	19.75	-	-
Himachal Pradesh	24.62	25.34	4.61	4.22
Karnataka	15.07	16.38	4.91	4.26
Kerala	10.01	9.12	1.03	1.10
Madhya Pradesh	14.10	14.54	22.97	23.27
Maharashtra	7.14	11.10	9.19	9.27
Manipur	1.25	2.02	27.30	34.41
Meghalaya	0.41	0.51	80.58	85.53
Mizoram	0.03	0.10	93.55	94.75
Nagaland	-	-	83.99	87.70
Orissa	14.66	16.20	22.43	22.21
Punjab	26.87	28.31	-	-
Rajasthan	17.04	17.29	12.21	12.44
Sikkim	5.78	5.93	23.27	22.36
Tamil Nadu	18.35	19.18	1.07	1.03
Tripura	15.12	16.36	28.44	30.95
Uttar Pradesh	21.16	21.04	0.21	0.21
West Bengal	21.99	23.62	5.62	5.60
India*	15.81	16.73	7.83	7.95

*Excludes Assam and Jammu and Kashmir

Sources: Census of India 1991: Primary Census Abstract Scheduled Castes, Series – 1 Part II – B (ii)

Census of India 1991: Primary Census Abstract Scheduled Tribe Population Series I, Part II- B (iii)

react without any pressure from organised movements or rent seeking societies, or interest groups among the implementing agencies. Otherwise, the higher deprivation index and the resultant social exclusion might lead to breakdown of faith in democratic norms and institutions.

Discussion of Results and Liberalisation

The transaction costs tend to be higher in the case of large farmers due to moral hazards of hired labour. Binswanger and Rosenzweigh (1986) establish that the main reason for the lower productivity of large farms is that they use more hired labour than smaller family farms do. And family workers are cheaper and more efficient than hired labourers are, as family workers seek to increase the profit while the hired workers' remuneration is fixed irrespective of the outcome of their labour. They find that the diseconomies of scale and transaction costs associated with hired labour could be circumvented by rental markets for land. But hordes of studies have asserted that tenants in whatever form are less efficient than the owner cultivators (Shaban 1987; Hayami and Otsuka 1985; Binswanger and Elgin 1988). In a completely neo-classical world in which markets clear and factors of production are paid their marginal products, land confers rent to its owners. Inequality in the ownership of land thus maps directly into inequality of income through implied distribution of rental income (Benjamin and Brandt 1997). In India, a considerable chunk of agricultural income is displaced through visible and invisible transfers due to inequality in the distribution of agricultural land. Thus, land reforms, particularly the reform of tenancy system and even reduction of the size of very large farms, should be seen in the liberalised situation to increase economic efficiency in three ways—security, land as collateral and commoditisation of land (Guinnane and Miller 1997).[25]

When the farm size is small with proper demesne and social and political privilege attached to the land is reduced due to the ownership of a large number of people, people will sell or buy small plots of land depending upon the economic viability or economic use of land. Hence, the small farm norm encourages economic efficiency by bringing the size to a viable one through active regular land market (Rajasekaran and Kate 1997). The higher positive growth rate of small farms (considerably higher than marginal farmers) in Kerala testifies to the farm attaining optimum size through regular land market from the equitable distribution.

In a primarily agricultural country like India, highly skewed land distribution patterns prematurely induce the closing of the low land agriculture frontiers long before economic, institutional and demographic factors are at work. Inequitable agricultural land distribution also persuades the landless to expand cultivation in marginal lands. In addition, the increasing landlessness provides one of the basic incentives for moving out of lowland agriculture, or even moving out of agriculture. But the inability of other sectors to absorb the displaced unskilled workers stifles the efficiency of the system as a whole through the laws of motion of a particular mode of production and from the logic of class behaviour and of the state moved by instrumentalism or capital logic (Roemer 1988). The weakness of the peasantry as a political force to reinforce the equitable distribution of land has been one of the major factors for poor achievements of land reforms in India (Warriner 1969; Ladejinsky

1970). The role of state should be to anticipate or respond to disequilibrium in the economy and legitimising the existing social relations without waiting for pressure. Otherwise, it would escalate the transaction costs in the production system and reduce the social welfare of the people.

Dorner (1972) asserts that a system built on inequity and privilege is inconsistent with economic development. The development indicators presented in Table 8 manifest that in the revised land reforms law period the indicators have signalled spectacular results. Ironically, the performance is splendid in all respects in the states where land reforms also put on a promising stage. The increase in male agricultural workers' productivity and female contribution to family income transpires the increase in the efficiency of the people and production system. Similarly, a noticeable decline in the poverty ratio (head count method by expert group) also explicates the pertinence of land reforms. The remarkable growth in the yield per hectare in the states where land reforms achievements show better results during the revised land ceilings period underscore the efficiency of small farms. Since the poverty level, HDI and productivity indicators have disclosed a lacklustre description in the states where the land tenure (owner and cultivator relationship) system and social relations have conspicuous diversities, furthering the emphasis on equitable distribution of land would spontaneously produce better results in development indicators.

In the context of liberalisation, some mainstream economists and agricultural economists argue that ceiling on landholdings and ownership rights to tenants are inconsistent with the liberalisation policies in the industrial sphere and it necessitates a fresh look (Thimmiah and Aziz 1997; Rajan 1986; Johl 1995). At the same time, they are also aware that even under Nehru-Mahalanobis model of development, agriculture was not integrated with the strategy of India's development planning. In a primarily agricultural country like India where agriculture has got to serve more a social purpose than economic purpose, it will be pragmatically ideal to have a special treatment for agriculture with studied integration to the allied sectors till the sector is totally commoditised (Aziz and Krishna 1997; Nadkarni 1976; Rajasekaran 1998; Vyas 1994; Mishra 1997).[26] Some agricultural economists envisage that the increase in the size of land would not ensure higher efficiency, and due to severe population pressure, agriculture should be viewed as safety net in the process of structural adjustment (Vyas 1994; Rao 1995; Rao 1996; Mishra 1997).

Above all, small farmers have subsistence tendencies by preferring subsistence crops to commercial crops. In the case of market failure such as national food security and food security for the poor, it would serve to circumvent disastrous consequences, for the buffer stock of 50 million tonnes in India amounts to only 20–25 per cent of the demand for food grains. Thus, the claim of total achievement of land reforms is an optical illusion of the real picture. The relaxation of land ceilings on horticultural crops and agro-enterprises on crop basis development or agro-industries development would purport to total relaxation especially in the absence of adequate

Table 8: Development Indicators Across States

States	Growth rate of Yield Per Hectare[1]		Male Agl. Labourers Productivity[2]		Poverty Rates Estimates[3]		Ranks of HDI[4]		Female Earnings[5]
	A	B	A	B	1973-74	1993-94	1970-75	1986-91	
Andhra Pradesh	0.89	3.41	-0.67	1.58	48.4	16.0	10	10	1.89
Assam	1.08	1.44	0.49	0.73	52.7	45.0	11	12	NA
Bihar	1.08	2.86	-1.22	-0.09	63.0	58.0	NA	17	1.92
Gujarat	2.07	2.28	-0.50	0.71	46.4	22.2	9	5	1.66
Haryana	3.30	4.13	2.78	2.99	34.2	28.7	4	7	1.91
Himachal Pradesh	2.57	2.38	4.44	1.29	NA	NA	6	6	NA
Jammu & Kashmir	5.20	-0.28	4.59	-0.91	NA	NA	7	11	NA
Karnataka	3.63	2.82	1.21	2.64	55.1	28.2	8	8	1.84
Kerala	1.64	1.99	0.07	0.64	59.2	25.9	1	3	1.80
Madhya Pradesh	1.07	3.75	0.19	2.85	62.7	40.8	14	14	1.43
Maharashtra	-2.62	2.62	-4.92	1.52	57.7	38.6	3	2	2.11
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	-0.13	2.64	-0.73	-0.08	67.3	49.9	15	16	2.13
Punjab	4.16	2.85	3.56	2.25	28.2	12.5	2	1	2.58
Rajasthan	3.07	3.95	2.82	3.04	44.8	27.5	12	13	2.07
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	2.10	4.03	0.95	3.46	57.4	32.6	5	4	1.97
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	1.83	3.39	1.13	1.12	56.5	42.6	13	15	2.08
West Bengal	1.27	4.39	0.16	3.15	73.2	40.3	NA	9	1.76
Union Territories	NA	NA	NA	NA	NA	NA	NA	NA	NA
All India	1.64	3.15	0.27	1.82	56.4	37.5			2.00

Notes: 1) 'A' refers to the growth rate of yield per hectare from 1962–65 to 1970–73 (old ceiling limits period) while 'B' refers to the 1980–83 to 1992–95 period (revised ceiling period). Source is G.S. Bhalla and Gurnail Singh (1997) p. A4.

2) Same as above p. A12.

3) *Source*: Abhijit Sen (1996) p.2466.

4) *Source*: Bhaskar Dutta *et al*. (1997) in S.Subramanian (ed) p.346.

5) *Source*: Bina Agarwall (1991) in (Ed) Ahmed *et al*. (ed) P.175.

basic infrastructure such as relatively clean bureaucracy with high administrative capacity, accurate records on land ownership and efficient land tenure systems. This would also increase the transaction costs through rent-seeking activities, pressure from interest groups and moral hazards of workers. The Japanese model of agricultural development and Mexican model of fostering economic development have highlighted the superiority of small farms for contributing agricultural surplus to invest in other sectors of the economy by making small farms efficient through dispersal strategies. The conditionalities of structural adjustment cannot be consciously permitted to obscure the virtues of small farms in fostering wholesome agricultural development.

Thus, the efficiency of the sector should be improved by activating the small farms through easy access to factor markets by removing the imperfections in the factor markets due to its social significance. Otherwise, the unbridled growth of large enterprises and the resultant over-specialisation would exacerbate the landlessness among the rural masses and, as a consequence, the transaction costs would get jacked up. The retrenched unskilled agricultural labour force would have to seek employment in the urban service sectors. This would further the social problems. Hence, the reforms in agricultural sector, particularly land ceiling, should not be integrated with blanket reforms consistent with liberalisation in the other sectors. Though it would be too radical or impractical to acquire the land of large farmers in the liberalised situation, they can be permitted to sell the land in excess of the ceiling limit in the regular market through impartial monitoring of land ceilings by the clean bureaucracy and strong political will.

Concluding Observations

The arguments thus clearly hold that the claim of total land reform achievement tends to be far-fetched and untenable. Therefore any assumption of total achievement and hence, policy shift consistent with the structural adjustment programme would be preposterous and would bring about disastrous consequences in the socio-cultural fabric of rural society. Moreover, lest land ceases to be important as a source of political power and unless it is commoditised as any other profit maximising business enterprise, the unbridled growth of large farms would create feudal power centres and bring down the total factor productivity in the agricultural sector. The industrially developed countries of today like Japan, Mexico and Taiwan reached the take-off stage through the advantages of modernised small peasantry agriculture and the success of land reforms.

The transaction costs in the agricultural production process could be reduced substantially through small family farms by removing the moral hazards of hired labour. As the rhetoric of land reforms reiterates, the increase in security of land in demesne induces moral persuasion to make permanent investments on land, which, in turn, promotes the carrying capacity of the land. This could be noticed in the higher

growth rate of yield per hectare in the states where land reforms made gentle progress. Moreover, land in demesne also stands as collateral to borrow soft loans from formal credit institutions. This also activates the regular land market as the non-viable lands are transferred to make viable size of farms due to the fading of social and political status attached to land.

The modernised family farms also increased the women's work participation as the female contribution to the household income tended to be higher in the states where land reforms registered noticeable progress. In addition, the increase in the proportion of land owned by SC & ST population in these states also affirm the relevance of land reforms. This social inclusive initiative also helps in the development of human capital and reduction of poverty. Kerala's top ranking in Human Development Index also attests to this. Above all, the increase in productivity of agricultural labourer endorses the pertinence of small farm norm by reducing the transaction costs. Thus, it transpires the continuing relevance of land reforms and modernised small farms for fostering sustainable agricultural development and social sustainability.

Pragmatically, the liberalisation process has set its footprints emphatically in the general policy framework in India. Hence, it would be impractical to acquire forcefully the ceiling surplus lands. But it would be feasible to maintain a detailed record of family size and family holdings with the assistance of software information networks. Though the computerisation of land records has already been set in motion, expediting the process would facilitate untangling of complications. The proper maintenance of land records and proper title to land like the Torrents System would reinforce the implementing agencies to monitor the land transfers and ownership status without much difficulty. Since the conditionalities of structural adjustment has imposed formidable restrictions on the distributional considerations of the government, it would be feasible to permit large farmers to dispose of the ceiling surplus lands in the land market with the help of strict land ceiling limits, clear land records and clean bureaucracy. In addition, through dispersal strategies and divisible technological innovations the modernisation of small farms could be encouraged to further the total factor productivity of small farms. This would also help improve the productivity of women, agricultural workers and small peasants by bringing the agrarian structure to *uni-modal* distribution. It would also remove the political alienation of the proletariat, small peasants and women by disturbing the concentration of wealth and power among large farmers and "middle class". This social inclusion would also reduce the transaction costs by removing the moral hazards of the workers and by improving the carrying capacity of land. The capitalistic development in agriculture thus continues to be an unsafe path to traverse in a primarily agricultural country like India. Hence, the integration of agriculture with other sectors in the process of across-the-board liberalisation and the Land Acquisition Bill (amendment), 1998, enabling the acquisition of agricultural land for private interests would undoubtedly weaken the knee and neck of the farmers, in particular and rural masses, in general. Therefore, the policy

makers and intellectuals should provide preferential treatment to land reforms. The proactive initiatives in land reforms would uniformly facilitate the social inclusion of marginalised sections of society in the mainstream nationalist sentiments and ensure socially sustainable development.

Notes

[1] Visible transfers include taxes, payment of rents to urban landlords, voluntary transfers from agricultural to non-agricultural households, savings of agriculture invested in non-agriculture and net transfer of the balance of current accounts of agriculture. The invisible transfers occur through unfavourable terms of trade for agriculture. Detailed discussion of the transfers can be found in Winters *et al.* (1998).

[2] Transaction costs are defined differently by different authors. While Stephen Cheung defines it as all costs not found in the Crusoe economy (where neither property rights nor transactions nor any kind of economic organisations can be found), North includes the cost of information concerning negotiations, monitoring and enforcement of contracts. According to Marxists, the difference between labour power and labour in the production process as well as the role of institutions in affecting efficiency in the structural context of incomplete or failing markets subsume transaction costs. Similarly, classical economists consider costs involved in supervising moral hazards as transaction costs. Eswaran and Kotwal (1986) assert that the transaction costs vary with land ownership, the pattern of class formation and social differentiation in rural society.

[3] Ghose (1983) asserts that agricultural development has been associated with the emergence of three different agrarian systems — capitalist system, modernised peasant economy system and collective system. While the first and last exhibit extreme form of market and state activities, the middle one manifests the resistance and accommodation of the two in equal importance. A detailed discussion of these systems and its working can be found in Ghose (1983).

[4] Caste system prevails in Mexico even today as a derivation of racial mixes like Spaniard-Indian, Spaniard-African, and African-Indian. Mestizos and Castizos originated from Spaniard and Indian mixes. The Spaniard-African mix mulatto/a, morisco/a, albino/a and Torna Atras come next in the hierarchy. The Indian-African mix has created Cambujo and cambujo/a categories. The hierarchy of caste system goes like Indian *varna* system identifying it with pig like eaters of the best part of the pig with finest wine, eaters of the pig, sellers of pigs, owners of pigs and cleaners of pigs. Thus, there are three types of caste systems prevailing in Mexico. The first one was destroyed after the 1910 revolution against the dominance of Spaniards in land ownership. The resultant land reforms helped overcome the hierarchy in the system. Nevertheless. Montalvo and Codina (2001) observe that the vestiges of caste system exist today even as couples dance *dazón* in small town plazas on Saturday night with pleasure and contentment, oblivious to history and its consequences.

[5] A detailed discussion of the political economy of broad-based agricultural development can be found in Johnston and Tomich (1985). They reiterate that the common motive of state and collective farms in the former socialist countries, by extolling the virtues of large farms, is the vested interest in managerial positions associated with direct government involvement.

[6] Krueger (1974), analysing the political economy of competitive rent seekers in India and Turkey, suggests that the existence of rent seeking stifles the people's perception of the economic system by affecting the income distribution.

[7] The distributional coalitions are overwhelmingly oriented towards struggles over the distribution of income and wealth rather than the production of additional output (Olson 1982). Srinivasan (1985) observes that stable societies with unchanged boundaries are likely to accumulate more such coalitions over time and they, in the long run, slow down society's capacity to introduce technical change and as a result bring down the rate of growth.

[8] Olson, through his "Logic of Collective Action" and " Rise and Decline of Nations", asserts that if workers, farmers and consumers faced monopolies harmful to their interests, they would eventually attain countervailing power through organisations such as labour unions or farm organisations or consumer forums. Through these they obtain market power and protective government action.

[9] The essence of New Political Economy (NPE) is the application of economic principles to areas that were previously considered to be the province of Political Science. The major components of NPEs are social choice, public choice, economics of institutions, organisations and imperfect information. The broader framework is based on Neo-liberal Political Economy methodology. A detailed discussion of these can be found in Dasgupta (1997, 1998); Lal and Myint (1996); and Jones (1988).

[10] 'Social Construction' of human reality refers to the ideas that human beings hold about human activity, which are the primary basis of their own subsequent behaviour (Jones 1988).

[11] Hirsch's (1977) analysis encompasses the destruction of conviviality by the promotion of self-interest, proliferation of intermediate goods that provide little or no primary satisfaction and positional goods, which can be enjoyed only at the expense of the frustration of others. Though the subject matter is essentially economic, the analysis and message are overwhelmingly political.

[12] A detailed discussion about the taxonomy, methodological difference, analytical perceptions and polemics of different political economies like Liberal, Marxian and Economic Realism can be seen in Jones (1988). Jones also emphasises the application of these political economy perspectives in International Economics.

[13] Rao and Storm's article in Byres (1998) reviews exhaustively the studies conducted in the Indian context on technological change and increasing inequality in agriculture within the political economy rubric of distribution and growth.

[14] Rao (1986) considers agriculture in recent development theory and compares the main

lines of advance made within neo-classical, neo-Marxian and structuralist approaches. A detailed review of the studies on the political economy of development particularly agrarian development can be found in the study.

15 Michael Brecher, in his Political Biography of Nehru (quoted in Myrdal's Asian Drama), describes Nehru as social reformer and not as social revolutionary. This slowed down the basic changes necessary in the social institutions to foster an egalitarian society. But the insensitivity was partly due to the experience of violence and disorder in 1947 and partly because of the liberal make-up of Nehru.

16 De Janvry and Sadoulet (1988) and Krueger discuss threadbare the political economy of agricultural policies with special emphasis on agricultural pricing policies. They embrace the view that the collective action of the people and instrumentalist state facilitate the reduction of transaction costs.

17 The suggested Land Ceiling Limits in the National Guidelines of 1972 is 4.05 - 7.28 hectares for irrigated land with two crops, 7.5 - 10.93 hectares for irrigated land with one crop, and 12 - 21.85 hectares for dry lands. This is the revised ceiling limit for a family of five members. The source is Annual Report of the Ministry of Rural Development.

18 The Backward Classes Commissions (Kaka Kalelker and Mandal) and other SC and ST Commissions have established the poor representation of OBCs, SCs and STs in the public administration. Similarly, various reports of National Commissions on SC & STs welfare also point out the dominance of 'upper castes' in the government services.

19 Pedersen (1992) discusses, in detail, the structure of bureaucracy and its composition. It delves into the "dominant consensus" debate in India. Ram Reddy (1989) reveals the substantial changes taking place in the caste composition of public employees in Andhra Pradesh.

20 In Karnataka, Land Tribunals were in operation in the implementation of land reforms on the recommendation of Jatti Committee, 1957. Kohli (1982) observes that the tribunal membership was extended to the supporters of the political party in power. Thimmaiah and Aziz report that it created a bitter rift between Gundu Rao and S. Bangarappa. There were a lot of complaints about the working of tribunals (Pani 1983; Rajan 1986; Manor 1980).

21 The struggle of Kisan Sabha in Punjab was confined to the right of occupancy in the earlier stages and later on oriented itself to get concessions of remunerative prices and supply of cheap inputs. Direct peasant action for land seizure and distribution was not a priority. Peasant militancy of Khet-Mazdoor Union in Malwa region and Doaba region was aimed at changing the mode of wage payment from kind to cash. Thus, there was no organised movement for land redistribution as such. The details of the movement activities in Punjab can be found in a host of studies (Talib 1986; Mencher 1974; Ladejinsky 1969; Joshi 1974).

22 The main content of CPI (ML)'s "People's Democratic Revolution" is the agrarian revolution, the abolition of feudalism in the countryside. According to Charu Mazumdar, the task of the revolution is land reforms in the interest of the peasants. … to carry out the

agrarian revolution (i.e., land reforms) without destroying the existing state machinery means straightforward revisionism. Mazumdar insisted on the leadership of the poor and the landless peasants, for they are the most revolutionary forces among the different classes of peasantry. A detailed discussion of the views on rural society can be found in Desai 1986.

[23] In Andhra Pradesh, people themselves started sending letters to the landlords using the name of Ryotanga Sangrama Samithi or Communist Party, telling them that they are notorious landlords, that they will be annihilated and their property will be confiscated. Landlords fled from some areas; in certain others they stayed away for the night. For details, see Desai 1986, p. 212-40.

[24] While the BPKS was formed (Bhumihars) in the interest of tenants, Triveni Sangh was a caste organisation of Ahirs, Koeris and Kurmis. These two organisations had class and caste characters in their leadership. These organisations were very active in Bhojpur region. Bataidari movement was active in the Kosi belt (Desai 1986).

[25] The abolition of tenancy system and absentee landlords encourages the farmers to make permanent investments on land, as a collateral it increases the access to cheap credit and allows the farmers to dispose of the nonviable farm in the regular land market. Thus, it promotes efficiency in the system (Guinnane and Miller 1997).

[26] Aziz and Krishna (1997), in this edited book, present views on land reforms in the context of liberalisation. While some present the optical illusion of total achievement of land reforms in Karnataka, the others present the real picture of Karnataka's structural distribution of land and the continued relevance of land reform measures particularly land ceiling and tenancy reform.

References

Adelman, Irma (1975). Development Economics: A Reassessment of Goals. *American Economic Review*. Proceedings Issue, 65 (2): 302–9.

Ahluwalia, Isher (1991) A Study of Linkages Between Agriculture and Industry: The Indian Experience. In J. Williamson and V. Panchamukhi (eds.). *The Balance between Industry and Agriculture in Economic Development.* New York: St. Martins Press.

Ahmad, Ehtishan, Jean Dreze, John Hills, and Amartya Sen (1991). *Social Security in Developing Countries*. Oxford: Clarendon Press.

Alavi, Hamza (1972). The State in Post Colonial Societies: Pakistan and Bangladesh. *New Left Review*, 74 (July-August): 59-81.

Aziz, Abdul, and Sudhir Krishna (eds.) (1997). *Land Reforms in India: Promises Kept and Missed*. Vol. IV. New Delhi: Sage Publications.

Bandopadhyay, D. (1986). Land Reforms in India: An Analysis. *Economic and Political Weekly*, XXI (25&26):a50–a56

Bandyopadhyay, Rekha (1996). Global Review of Land Reform: A Critical Perspective. *Economic and Political Weekly*, 31(11): 679-91.

Banerjee, Sumanta (1986). Naxalbari. In A R Desai (ed.). *Agrarian Struggles in India after Independence*. New Delhi: Oxford University Press.

Bardhan, P.K. (1981). Agrarian Class Formation in India. *Journal of Peasant Studies*, 8(1): 73-94.

——— (1989). The Third Dominant Class. *Economic and Political Weekly*, 24 (3): 155-6.

———, and Ashok Rudra (1986). Labour Mobility and the Boundaries of the Village Moral Economy. *Journal of Peasant Studies*, 13 (3): 90-115.

Benjamin, Dwayne, and Loren Brandt (1997). Land, Factor Markets and Inequality in Rural China: Historical Evidence. *Explorations in Economic History*, 34 (4): 460-94.

Bhagwati, Jagdish N., and Sukhmoy Chakravarty (1969). Contributions to Indian Economic Analysis: A Survey. *American Economic Review*, 59 (1): 1-73.

Bhalla, G.S., and Gurnail Singh (1997). Recent Developments in Indian Agriculture: A State Level Analysis. *Economic and Political Weekly*, 32 (13): a2-a18.

Binswanger, Hans P., and M. Elgin (1988). What are the Prospects for Land Reforms? In Allen Maumder and Alberto Valdes (eds.). *Agriculture and Governments in an Interdependent World, Proceedings of the 20th International Conference of Agricultural Economists*. Dartmouth, Aldershot: UK.

———, and M. R. Rosenzweig (1986). Behavioural and Material Determinants of Production Relations in Agriculture. *Journal of Development Studies*, 22 (3): 503–39.

———, and Klaus Deninger (1997). Explaining Agricultural and Agrarian Policies in Developing Countries. *Journal of Economic Literature*, 35 (4): 1,958-2,005.

Brass, Tom (1997). The Agrarian Myth, the 'New' Populism and the 'New' Right. *Economic and Political Weekly*, 32 (4): pe 27-pe42.

Byres, Torrence J. (ed.) (1998). *The Indian Economy: Major Debates since Independence*. Delhi: Oxford University Press.

Colander, D. (ed.) (1984). *Neo-Classical Political Economy*. Cambridge: Ballinger Publishing Company.

Currie, J. M. (1981). *The Economic Theory of Agricultural Land Tenure.* Cambridge: Cambridge University Press.

Dasgupta, Biplap (1997). New Political Economy: A Critical Analysis. *Economic and Political Weekly*, 32 (4): pe13-pe26.

——— (1998). *Structural Adjustment, Global Trade and the New Political Economy of Development*. New Delhi: Vistaar Publications.

De Janvry, Alain, and Elisabeth Sadoulet (1988). Alternative Approaches to the Political Economy of Agricultural Policies: Convergence of Analysis and Divergence of Implications. In Allen Maunder and Alberto Valdes (eds.). *Agriculture and Governments in an Interdependent World, Proceedings of the 20th International Conference of Agricultural Economists*. Dartmouth: University of Oxford.

Desai, A. R. (ed.) (1986). *Agrarian Struggle in India after Independence*. New Delhi: Oxford University Press.

Dorner, Peter (1972). *Land Reform and Economic Development*. Harmondsworth: Penguin Education.

Dutta, Bhaskar *et al*. (1997). *Theoretical Issues in Development Economics*. Bombay: Oxford University Press.

Eswaran, Mukesh, and Ashok Kotwal (1986). Access to Capital and Agrarian Production Organisation. *Economic Journal*, 96 (3): 482-98.

Flores, Edmundo (1963). Issues of Land Reforms. *Journal of Political Economy*, 78(4): 890–905.

Frankel, Francine R. (1969). *Economic Gains and Political Costs*. Princeton: Princeton University Press.

———, and M.S.A. Rao (eds.) (1989). *Dominance and State Power in Modern India*. Vols. I & II. Delhi: Oxford University Press.

Ghose, Ajit Kumar (1983). *Agrarian Reform in Contemporary Developing Countries, An ILO-WEP Study*. New York: Greenhelm London and St. Martins Press.

Goyal, S. K. (1989). *Agricultural Prices and its Impact on the Indian Economy*. New Delhi: Classical Publishing Co.

Griffin, Keith (1974). *Political Economy of Agrarian Change: An Essay on the Green Revolution*. London: Macmillan Press.

Guinnane, Timothy W., and Ronald I. Miller (1997). The Limits to Land Reform: The Land Acts in Ireland, 1870-1909. *Economic Development and Cultural Change*, 45(3): 591-612.

Harrison, Mark (1975), Chayanov and the Economics of Russian Peasantry. *Journal of Peasant Studies*, 2 (4): 389-417.

Hayami, Yujiro, and Masao Kikuchi (1982). *Asian Village Economy at the Crossroads*. Tokyo: University of Tokyo Press and Baltimore: Johns Hopkins University Press.

———, and K. Otsuka (1985). *Theories of Share Tenancy: A Critical Survey*. Tokyo: Metropolitan University Press.

Herring, Ronald J. (1983). *Land to the Tiller: Political Economy of Agrarian Reform in India*. New Delhi: Oxford University Press.

Hicks, J.R. (1969). *A Theory of Economic History*. Oxford: Clarendon Press.

Hirsch, Fred (1977). *Social Limits to Growth*. London & Henley: Routledge & Kegan Paul.

Hirtz, Frank (1998). The Discourse that Silences: Beneficiaries' Ambivalence towards Redistributive Land Reforms in the Phillipines. *Development and Change*, 29 (3): 247-75.

Hiseh, S.C., and T. H. Lee (1966). *Agricultural Development and its Contribution to Economic Growth in Taiwan*. Cambridge: Cambridge University Press.

Johl, S.S. (1995). Agricultural Sector and New Economic Policy. *Indian Journal of Agricultural Economics*, 50 (3): 473-87.

Johnston, Bruce F. (1951). Agricultural Productivity and Economic Development. *Journal of Political Economy*, 59(6): 498-513.

——— (eds.) (1970). *Agricultural Development and Economic Growth*. Ithaca, New York, USA: Cornell University Press.

———, and Thomas P. Tomich (1985). Agricultural Strategies and Agrarian Structure. *Asian Development Review*, 3 (2): 1-37.

Jones, Barry R.J. (1988). *The Worlds of Political Economy*. London and New York: Printer Publishers.

Joshi, P. C. (1974). Land Reform and Agrarian Change in India and Pakistan since 1947. *Journal of Peasant Studies*, I(1): 165-85 and I(2): 326-62.

Khan, M. M. (1989). A Note on Persistence and Polarization. *Journal of Peasant Studies*, 14(4): 538–42.

Kohli, Atul (1982). Karnataka's Land Reforms: A Model for India? *The Journal of Commonwealth and Comparative Politics*, 20(3): 309–28.

Krueger, Anne O. (1974). Political Economy of the Rent Seeking Society. *American Economic Review*, 64(3): 291-303.

——— (1992). *Political Economy of Agricultural Pricing Policy*. Vol. 5. *A World Bank Comparative Study*. Baltimore: Johns Hopkins University Press for The World Bank.

Ladejinsky, Wolf (1969). Green Revolution in Bihar, The Kosi Area: A Field Trip. *Economic and Political Weekly*, 4 (39): a147-a162

——— (1970). Ironies of India's Green Revolution. *Foreign Affairs*, 48 (4): 758–68.

Lal, Deepak, and H. Myint (1996). *The Political Economy of Poverty, Equity and Growth*. Oxford: Clarendon Press.

Manor, James (1980). Pragmatic Progressiveness in Regional Politics. *Economic and Political Weekly*, Annual Number.

Meerman, Jacob (1997). *Reforming Agriculture: The World Bank Goes to Market*. Washington D C.: The World Bank.

Mencher, Joan P. (1974). Problems in Analyzing Rural Class Structure. *Economic and Political Weekly*, 9(35): 1495–503.

Mishra, S.N. (1997). Agricultural Liberalisation and Development Strategy in the Ninth Plan. *Economic and Political Weekly*, 32(13): a19-a25.

Montalvo, F.F., and G.E. Codina (2001). Skin Colour and Latinos in the United States. *Ethnicities*, 1(3) December 2001.

Myrdal, Gunnar (1968). *Asian Drama: An Inquiry into the Poverty of Nations*. Vol. II. New York: Pantheon, A Division of Random House.

Nadkarni, M.V. (1976). Tenants from the Dominant Class: A Developing Contradiction in Land Reforms. *Economic and Political Weekly*, 11(52): A137-A46.

North, Douglas (1981). *Structure and Change in Economic History*. New York: W W Norton & Co.

——— (1989). Institutions and Economic Growth: A Historical Introduction. *World Development*, 17(9): 1319-32.

Okhawa, Kazushi (1972). *Differential Structure and Agriculture: Essays on Dualistic Growth.* Tokyo: Kinokuniya Bookstore Co. Ltd.

Olson, Mancur (1965). *Logic of Collective Action: Public Goods and the Theory of Groups*. London: Harvard University Press.

——— (1982). *The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities*. Yale: Yale University Press.

Pani, Narendar (1983). *Reforms to Pre-empt Change: Land Legislation in Karnataka*. New Delhi: Concept Publishing House.

Pedersen, Jorgen Dige (1992). State, Bureaucracy and Change in India. *Journal of Development Studies*, 28 (4): 616-39.

Potter, David C. (1986). *India's Political Administrators—1919-1983*. Oxford: Clarendon Press.

Raj, K.N. (1970). Ownership and Distribution of Land. *Indian Economic Review*, 5(1): 1-42.

——— (1975). Agricultural Development and Distribution of Land Holdings. *Indian Journal of Agricultural Economics*, 31(1): 1–13.

Rajan, M.A.S. (1986). *Land Reforms in Karnataka: An Account by a Participant Observer*. New Delhi: Hindustan Publishing Corporation.

Rajasekaran, N. (1996). Trends in Operational Holdings in Maharashtra: An Analysis of Determinants. *Gokhale Institute Mimeograph Series No.44*. Pune: Gokhale Institute of Politics and Economics.

——— (1998). Land Reforms in Maharashtra - A Regional Analysis. *Review of Development and Change*, 3 (2): 238-63.

———, and S. B. Kate (1997). Marginalisation of Peasantry in Maharashtra. *Asian Development Review*, 39 (3): 363-86.

Rao, C.H.H. (1995). Liberalisation of Agriculture in India: Some Major Issues. *Indian Journal of Agricultural Economics*, 50 (3): 468–72.

Rao, V. M. (1972). Land Transfers in Rural Communities: Some Findings in a Rayatwari Region. *Economic and Political Weekly*, 7(40): a133–a144.

——— (1996). Policy Research for Liberalised Agriculture: Some Illustrative Research Areas. *Indian Journal of Agriucultural Economics*, 51 (1 & 2):133–44.

Rao, J. Mohan (1986). Agriculture in Recent Development Theory. *Journal of Development Economics*, 22 (1): 41-86.

———, and Servasi Storm (1998). Distribution and Growth in Indian Agriculture. In Terence J. Byres (ed.). *The Indian Economy: Major Debates since Independence*. New Delhi: Oxford University Press.

Reddy, G. Ram (1989). The Politics of Accommodation: Caste, Class and Dominance in Andhra Pradesh. In Frankel, Francine R., and M. S. A. Rao (eds.). *Dominance and State Power in Modern India*. Vol.I. Delhi: Oxford University Press.

Roemer, John (1988). *Free to Lose*. Harvard: Harvard University Press.

Rutten, Mario (1995). *Farms and Factories*. New Delhi: Oxford University Press.

Scott, James C. (1976). *The Moral Economy of Peasants*. Yale: Yale University Press.

Sen, Abhijit (1996). Economic Reforms, Employment and Poverty: Trends and Options. *Economic and Political Weekly*, 31(37), September Special Number 2,459–77.

Shaban, R.A. (1987). Testing Between Alternative Models of Share Cropping. *Journal of Political Economy*, 95 (5): 893-905.

Srinivasan, T.N. (1985). Neo-Classical Political Economy, the State and Economic Development. *Asian Development Review*, 3(2): 38-58.

Subramanian, S. (ed.) (1997). *Measurement of Inequality and Poverty*. Delhi: Oxford University Press.

Talib, B. D. (1986). Agrarian Tensions and Peasant Movements in Punjab. In A. R. Desai (ed.). *Agrarian Struggles in India after Independence*. New Delhi: Oxford University Press.

Thimmaiah, G., and Abdul Aziz. (1984). *Political Economy of Land Reforms*. New Delhi: Asish Publishing House.

Vyas, V.S. (1994). Agricultural Policies for the Nineties: Issues and Approaches. *Economic and Political Weekly*, 29 (26): a54–a64.

Warriner, Doreen (1969). *Land Reforms in Principle and Practice*. Oxford: Clarendon Press.

Winters, Paul, Alain de Janvry, Elizabeth Sadoulet, and Kostas Stamoulis (1998). Role of Agriculture in Economic Development: Visible and Invisible Surplus Transfers. *Journal of Development Studies*, 34 (5): 71-97.

Tradition in Transition: Globalisation, Priests, and Ritual Innovation in Neighbourhood Temples in Bangalore

Tulasi Srinivas *

Abstract

This paper focuses upon the nature and function of ritual in neighbourhood temples in Bangalore city in South India. The paper examines how modified rituals are created by entrepreneur priests as 'strategies of engagement' ostensibly to make Hinduism more accessible to an emergent class of devotee. I analyze three distinct 'strategies': the incorporation of technology into forms of worship in neighbourhood temples, and the meaning both of the acquisition and use of the technology; the use of new international and national imagery in traditional *alankara* (dressing of the deity), and the construction of a nationalist/cosmopolitan imagery; and the 'recycling' of traditional folk village deities to cater to the new demands of the contemporary urban middle class devotee base.

"There is a tide in the affairs of men, which taken at the flood, leads on to fortune. Omitted, all the voyage of their life is bound in shallows and in flats. On such a full sea are we now afloat. And we must take the current when it serves, or lose our ventures."

William Shakespeare, *Julius Caesar*

Introduction

Significant economic and social changes have occurred in the past decade in India, largely due to the policy of economic liberalization pursued by the Government of India.[1] This paper examines how Hindu priests in urban temples navigate these socio- economic changes, focusing upon the changing nature of the temple ritual. This paper is based on data drawn from a 23-month-long ethnographic study of three 'neighbourhood'[2] Hindu temples in the Malleswaram area of Bangalore city.

Studies of Hindu ritual have been limited to the study of the important pilgrimage temples[3] (*periya kovil*, *devasthanam*) (Appadurai 1981; Fuller 1992, 1979; Eck: 1981; Babb 1975; Waghorne 1999), where the maintenance of traditional

* Senior Fellow, Institute for the Study of Religion, Culture and World Affairs, Boston University, Boston.
E-mail: tsrinivas@comcast.net

ritual is a central reason for the temples' significance. It appears from the literature that scholars have assumed such an adherence to tradition as the norm in temples all over India. Further there has been a textual bias that has 'anchored studies of Hinduism in the West' (Waghorne 1999:649) and many, if not all, of the studies of Hinduism emphasize the links with the long durée structures of Hindu society (Babb 1975, Appadurai;1981, Dumont; 1970, Fuller;1979, and Parry;1979, 1994). So the established view that ritual is linked to caste, purity, and hierarchy, has so dominated the understanding of Hindu ritual, that changes in the rituals have rarely, if ever, been studied.[4]

However, as the data in this paper indicates, ritual is changing. This changing nature of ritual points to[5] several changes within the embedded and experiential world of Hinduism – the changing nature of the priesthood and the community they serve; 'function' of ritual in everyday life of modern Hindus, 'authenticity' of the ritual form for the devotees, adaptation of traditional ritual to the new socio-economic terrain of urban India, and the larger relationship of modernity and tradition in a rapidly globalizing India.

Setting the rituals and the priests who perform them against new circles of global economic change allows us to explore some counterintuitive currents that priests, who are usually associated with protecting tradition against change appear to instigate, or at least, to welcome change. Hindu Brahmin priests, most often associated with retaining and protecting existing hierarchies, seem to deal creatively with urban situations where differential knowledge can create conflict. Therefore, it needs to be emphasized at the outset, this is not a description of a passive local reaction to forces of globalization that sweep into India, but an analysis of the indigenous agency of the priests who act as 'religious entrepreneurs' (Moore 1994: 91) in a service arena (Srinivas: 2001), competing for clientele, using social (particularly kin) networks to 'get ahead', and appropriating the new technologies that economic liberalization brings to them in unique and effective ways. I argue that the priests engage a 'new cultural grammar' that enables them to reinterpret and contextualize the language of traditional ritual to suit the problems of devotees in an 'era of capitalism' (Jameson: 1991). Not only is religion complicit in mechanisms of market exchange as Moore suggests (1994: 117), but the priests are at the forefront of religious innovation[6].

The study of ritual is not new to anthropology (Turner 1974; Van Gennep 1910, 1960; Evans-Pritchard 1974; Geertz 1960; Bell 1997). This paper adds one additional dimension, that of "organic" flexibility within which various religious and political forces form and dissipate, and over time these religious styles themselves mutate. I have attempted to tease out descriptions of a very different community form than traditional villages or traditional urban structures built around kin-based or caste-based temples. Linked to these new urban communities are new

concepts of competition, recruitment, status, gender, mobility and culture. To extend the argument, one can claim that the essential fluidity of everyday Hinduism provides the matrix within which such changes can be imagined and negotiated.

I document changes in ritual (Geertz 1960) through, what I call, three 'strategies of competitive engagement', regularly employed by the 'entrepreneur priests' of Bangalore; (a) incorporating technology of various types within ritual, and creating ritual to accommodate new technology; (b) the creation of new religious spectacles and decoration of the deity (*alankara*) based on the concept of the nation state; and (c) the recycling of traditional deities and their functions to make them relevant to the modern devotee. I suggest that the 'locus of accretions' of change that Geertz defines in his path breaking study of a funeral in Java, occur in situations where traditional ritual faces the forces of change. The changes in ritual speak to set of questions — What is authenticity in ritual? How is it recognized? What are the 'essential' elements to make a ritual 'traditional', 'authentic', and therefore, in the devotees' mind, efficacious? What are the elements that can be transposed? I wish to suggest a theoretical framework in which participants' understandings of what is important and significant in a ritual are taken seriously.

The need to retake and integrate aspects of the pure and the past in the lives of contemporary people has also located the high culture or what is 'authentic' and 'traditional' in rituals. They epitomize for the new Indian middle class both a nostalgic return to an unbroken past, and an important marker of status. The need for such an image within India is part of the fallout from globalism - both the kind that sends Indians out of India and the kind that brings the world to India. This exploration, will locate ideas of locality, nation, and tradition, in the changing rituals.

This paper is a counterpoint to the recent spate of work on Hindu fundamentalism that is a key area of emerging new theory (Vanaik ;1997, van der Veer; 1994) on Indian religion. I suggest that the theoretical waters have been muddied by a focus on 'Hindu fundamentalism', as it is called. While I do not make a political analysis of the relative power in the public sphere between different religious styles in India, it is important for outsiders as well as commentators within India not to allow fundamentalist stands to obscure other narratives. I argue that a return to an ethnographically driven understanding of religion is paramount to examine the complex role of religion in post-modern India.

Finally, I see this paper as exploratory where I raise more questions than I can answer. However, I hope that an awareness of the connections and the interplay between socio-economic change, and the evolution of ritual, will inform future studies of modern Hinduism,[7] and lead to a greater understanding of how religion continues to remain dynamic and relevant in devotees' lives in urban India.

Neighbourhood Temples, Entrepreneur Priests and a New Class of Devotees

Bangalore has emerged in India as the 'cutting edge' city for technology. The Indian economy suffered a crisis in 1989 and Mr. Manmohan Singh, the then Finance minister, took the decision to 'liberalise' the Indian economy. Perhaps by design or perhaps coincidentally, since then the Indian economy has seen significant growth rising from 2 per cent in 1990 to 7.8 per cent in 2001[8]. As a result of the economic spurt and increased monetisation, a significant and growing Indian middle class[9] with access to sudden large reserves of capital, Bangalore became one of the 'hot zones' (Friedman: 2000) of technology and developed as a 'global city' in the past decade.

The inherited structure of modernity theory implies that along with increasing modernization, India would become increasingly secular (Berger 1997; Luckmann 1967; Wilson 1966). In Bangalore, it appears that increasing entry into capitalism has been met with a corresponding increase in religiosity. Temples are constantly filled with devotees performing rituals, the priests' calendars are crammed with requests for *Satyanarayana pujas* (worship) for prosperity, Ganesha *homas* (sacred fire worship) for protection, *Vandi* (vehicle) pujas to guarantee the safety of vehicles and the passengers who ride in them, house warming ceremonies, and other such festivities. Cars are mobile shrines with an idol of one or other god on the dash board. And life-cycle rituals such as weddings, sacred thread ceremonies, births, engagements, and so on, are performed with great fanfare. What Srinivas wrote about Rampura, a village in Karnataka in 1949, still holds good for contemporary Bangalore; 'Rampurians lived in a theistic universe in the sense that everyone in the village believed that gods existed, or more precisely deities, male and female, and spirits did exist.' (1976:323). This increase in the performance of rituals in Bangalore points, I think, to the anxieties of a growing middle class, which is in a race to 'get ahead'. This new middle class feels greater pressure to succeed than its parent's generation, to get educated, find a multi-national job, find a partner on its own, marry and have children, build a home, buy consumer durables, and so on.

This new class emergent in the past decade in urban India clearly has the economic power and cultural capital for global consumption. There have been scholarly speculations that this new middle class is a cultural disjuncture from the rest of India. However, in terms of religiosity it is clear that this class performs rituals with increasing frequency and extravagance and is, therefore, performatively at least, deeply embedded in the culture of Hindu India.

Many of this new cosmopolitan class of India who came to Bangalore in search of professional jobs in the Information Technology industry settled in Malleswaram, a suburb to the north of the city of Bangalore. The nostalgia factor of Malleswaram as the epitome of 'old Bangalore' was emphasized in brochures by

developers depicting photographs of old cool bungalows with big gardens filled with flowering mango trees (Srinivas 2002). From the early 1900s when it was carved out of thick virgin forest until the late 1940s, Malleswaram grew as upper caste and middle class locality, and it remained largely undisturbed as an upper caste backwater from the 1940s until the 1990s. With the economic boom of the 1990s, old houses were broken down to be replaced by apartment blocks built for the new cosmopolitans. This influx of newcomers into the neighbourhood led to a dramatic change in the social structure. In due course, Malleswaram became an ethnically and religiously diverse neighbourhood.

Malleswaram has ten major temples within its precincts. My study has included four of the ten, all located within a half mile radius: the Shri Venugopalaswamy Krishna temple, the Maha Ganapathi temple, the Shirdi Sai Baba temple, and the Kadu Malleswara temples from which the neighbourhood gets its name. Sri Venugopalaswamy Krishna temple (*'kovil'- Tamil, 'gudi'- Kannada*[10]), was dedicated to Vishnu in the form of Gopala Krishna (as a cowherd playing the flute). The chief priest (*pradhana archarkar, vadiyar*) was fondly called 'Babu' Bhattar (*pata / bhatta - priest*) though his official name was Sridhara Narayana Bhattar. He was around 34 years old in 1999. He was one of the foremost entrepreneurial and personally charismatic priests in Bangalore. He marketed the temple ceaselessly both within the city and abroad. Under his direction, devotees told me that the temples were 'more crowded' and 'had more money'. Devotees and others in the neighbourhood acknowledged him to be the most professional of all the priests in Malleswaram. Babu was also one of the most successful priests in Bangalore with an income estimated to be over six thousand rupees a week (Srinivas; 2002). He had married into a powerful priestly family and spent several years studying to get the priestly title of '*agama ratna*' (jewel of the *agamas*[11]).

The devotees of the temple were relatively traditional Sri Vaishanavite Brahmin families from Malleswaram, though in the past five years, more and more new clientele with no hereditary connections[12] to the temple worship at the temple. The older devotees with hereditary rights were a fairly cohesive group with definite ideas of how rituals should be performed. Babu was doing his utmost to attract the new class of clients to the temple but he met with obstacles in pursuing that goal. He told me that he felt constrained by 'old fashioned' devotees in bringing about more aggressive change in the temple. The older devotees were very critical of the new class while acknowledging that they gave a lot of money to the temple.

The Maha Ganapathi temple is one block away from the Krishna temple. It is dedicated to Ganesha, the son of Shiva, remover of obstacles. The chief priest Ghani Shastri, real name is Sutram Subramamyam Shastry, but he had adopted the name of the deity 'Ganesha' as his own about twenty years ago in a move of extreme devotion. The devotees shortened it to 'Ghani'. Ghani is a successful

priest, and his whole family is involved in managing the temple. During 1998-1999, his son Kashi (33 years old) was being trained to take over the job of chief priest and Kashi's two sons, Ganesha and Subramanya, were also at the temple after school each day. Ghani's wife, unlike other priests' wives, often helped him at the temple. She was present at every festival and ritual occasion and often acted as ritual instructor for women's pujas.

Ghani has been one of the earliest among the priests in Malleswaram who recognized the important role women played in ritual. He systematically reached out to women's groups. In the early 1990s, he instituted the concept of 'ladies only' *pujas* in temples and in his house[13]. He and his wife performed *pujas* that women traditionally performed with female family members in their home. The women's *pujas* were so successful that by 2000 he had a waiting list to get in, and over 1,000 women thronged the temple on these occasions. Though traditional Shaivite families of Malleswaram still visited the temple, Ghani made a great effort to capture a whole new clientele and succeeded. His temple became famous as one of the most efficacious and efficient temples in the whole city, and devotees came from all over Bangalore to perform pujas. Ghani and his family welcomed people regardless of their caste and their class.

The traditional form of the patronizing loyalty of Shaivites and Vaishnavites to the presiding deity of the temple is rapidly undergoing a change in Malleswaram. In the neighbourhood of the Malleswaram temples while each of them traditionally aimed at catering to devotees from their respective sects and castes, the emergent new class of devotees crossed traditional class and caste based affiliations. The multi sectarianism within a caste, such as Madhwa, Iyer, Iyengar and Smartha Brahmin castes all worshipping at one temple, led to respective castes acquiring multiple identities, something that traditionally would not have occurred as these various sects would not have worshipped at the same temple. Temples within Malleswaram and indeed in Bnagalore have become in recent years sacred 'multiplexes' which aim at catering not to one principal sect with which they were traditionally identified, but many more sects who might have even had a historical 'folk rivalry' as members of competing sects within the larger caste. I found that a significant number of Malleswaram devotees crossed sectarian boundaries on certain days of the week dedicated to certain gods, at difficult times in their lives, or on festive occasions[14]. The new class crossed sectarian boundaries even more frequently and went to worship at certain temples for their efficacy in mitigating specific problems (Srinivas: 2001) . So, in keeping with this phenomenon in Bangalore the modern urban residents have few reservations in patronising a temple where the deity does belong to their traditional sectarian affiliations. This crossing of sectarian and caste boundaries by devotees led to a widening pool of potential devotees for each temple. Priests and temples were quick to take note of this loosening

of traditional affiliations and they, therefore, became active competitors for an expanding devotee base. Both Babu Bhattar of the Krishna temple and Ghani Shastri of the Ganesha temple were what I termed 'entrepreneur priests' in that they were active in competing for new devotees who crossed these sectarian boundaries. Both were influential in creating new rituals in their temples, which drew more devotees, and were later on picked up by other temples in Bangalore. They often created and used specific 'strategies of competitive engagement' by which they attempted to 'have an edge' over their competitor.

The Power of Technology

Technology now plays an important role in almost all aspects of temple life, including the creation of new ritual, and to give added authority to traditional rituals. Acquisition and use of appropriate technologies are seen as 'modern' and desirable, by both the priests and the devotees. The Maha Ganapathi temple has been a leader in this regard investing in a computerized lighting display around the sanctum in early 1997. The first installation was a series of lights that were controlled digitally and blinked in sequence. Next, a digital *Om* symbol was installed above the doorway of the sanctum, that blinked during the *mangalaarathi*. Similar multi-coloured strands of lights were also used to highlight signboards with devotional sayings such as *Hari Om*, or *Ganesha Namaha*, that were hung around the sanctum. I found them distracting, but my informants thought that they represented the cutting edge of ritual technology. When I returned to the Maha Ganapathi temple for a visit in late 2002, I found that the entire temple was surrounded by these digital lights. Pictures of every deity (of which there are hundreds) on the temple walls, were wreathed in garlands of digital lights that blinked in various blinding sequences that were co-ordinated by stereophonic music. I found that this digital display has been imitated by other temples in Malleswaram, as well as in other parts of Bangalore city. Informants who had been to other cities in India[15] told me that this was 'common' in most urban temples.

The digital lights changed not only the character and aesthetic of the temple, they changed the ritual format as well. During the *mangalaarathi* (offering of the camphor flame to the deity) in 1997 all the electric lights in the sanctum sanctorum were switched off to enable the devotees to see the deity by the light of the camphor flame. To the devotees this was the central and meaningful ritual of worship, when deity and devotee communicated with one another, as the devotee got *darshan* of the deity. However, by February 1998, the digital lights were never switched off at any time of the day or night. By mid summer 1998, a new set of digital lights depicting the *mangalaarathi* flame were placed outside the sanctum, to burn all the time changing both the form and meaning of the *mangalaarathi* sequence.

The older devotees did not like the focus on technology in the Ganesha temple. Their opposition led to a dispute among the devotees and between the priests and a section of the devotees. The younger priests, such as Kashi, the son of Ghani Shastri, are enamoured of the new technology and want to use it everywhere. Often, I found that the older devotees were dismissed by the younger devotees as being '*thumba old fashionedu* '(very old fashioned) by saying '*avarige modern ishta illa*' (they do not like modern things). Two years ago when Kashi installed the digitally blinking lights, one of the older women devotees was very upset. She asked me saracastically, 'What is this – a circus or a temple? This fellow is destroying the temple and they (gesturing to the devotees) are letting him'. Her annoyance was greeted with amusement by some of the younger devotees.

Technology, therefore, is used by some of the priests who hope to create interest in their temple and to make it attractive to the new class of devotees. Ghani Shastri is at the forefront of the movement. Ghani Shastri and his son Kashi were aware that that new technology tended to attract younger devotees. The use of technology plays a distinctive role in marking a generational change, and demonstrates the intent to attract a new younger, more modern, devotee base. I found that technology was also used by them to elevate ritual, into theater and spectacle, to draw more devotees. For example, during the installation of an idol of Banshankari Devi in the Maha Ganapathi temple a helicopter was hired to shower the temple *gopuram* (entrance gateway, wind tower) with rose petals at the exact moment of consecration.

'When Kashi invited me for the Banashankari Devi installation he told me that he had hired a helicopter to shower rose petals after the installation was complete. He seemed very excited by the whole idea. Ghani Shastri added that they had contacted an agency that said that their charges were fifty thousand rupees. The Muzrai department[16] had sanctioned the expenditure and they had sent someone off to confirm the arrival of the helicopter during the ceremony. At noon, precisely the Mahabhishekam was over and we heard a whirring sound in the air. Kashi got terribly excited and yelled over the microphone 'helicopter helicopter'. Everyone looked at the sky. The sun was bright and everyone squinted at the blue sky but there was nothing to be seen. Suddenly in the sky there appeared a lone eagle in front of a rising helicopter. Kashi became incoherent in his excitement; 'Helicopter has come. Look to the right and Garuda, the vehicle of Krishna, is here. We are blessed'. Many people dashed out from surrounding houses and streets and peered into the sky murmuring prayers. It was truly a miraculous sight. The helicopter hovered in the clear blue sky and suddenly we were all drenched in red and yellow petals! I found many of the devotees with tears streaming down their faces.' *Extract from field diary, February 20, 1999.*

Technology in this case created and defined a transcendant moment between the devotees and the deity. It was clear that many devotees were moved

by the appearance of the helicopter overlapping with the *Garuda* eagle. Most of them are educated people and the appearance of a helicopter in any other context would not seem miraculous. Thus, the new forms of worship are culturally constructed through a 'bricolage'[17], with the understructure of technology, which is based on emulation of the West, overlaid and reinterpreted as essentially 'Hindu'. The helicopter is not a helicopter *per se* but it is seen in conjunction with *Garuda* (Brahman Kite) (the divine vehicle of Vishnu). It was interpreted as a 'newer' form of the divine vehicle. Many of the devotees referred to the miraculous helicopter for months after the installation of the deity.

In my 26 months in the field I observed 103 processions. Traditionally, the processions comprised of many different components. The processional form of the deity (*utsavar*) was carried out on a vehicle (*vahanam*) or in a palanquin (*pallaki*) in a clockwise direction around the temple (Appadurai 1981 Fuller 1992). The length of the circuit depended upon the importance of the festival, and the number of devotees involved. Depending upon the wealth of the temple the procession would be led by a horse, or, preferably, an elephant, carrying the sectarian mark of the deity. The animal would be ideally followed by the temple drums carried on the back of another animal, followed by the temple musicians playing devotional music as they walked backwards facing the procession. In Vaishnavite temples, the musicians were followed by the *Nalayira Prabandam*, who Appadurai (1981) describes as, 'the corps of chanters having the hereditary right to recite devotionalist poetry composed by Alwar saints of the medieval period'. Following the *prabandam* corps, was the main body of the procession in a thick knot. The diety was surrounded by a tight ring of priests and devotees. Priests carried the *deepa* (camphor lamp) to offer devotees as a blessing. The deity was also surrounded by temple officials and core devotees who were permitted to carry symbols of high office — the white silk umbrella of kingship that was carried over the deity, the flags and banners indicating the deity's sect. The main body of the procession was followed by another corps of *prabandam* reciters, and the devotees.

In the past five years this form of the procession has been changing as entrepreneur priests have tried to make it more secular and accessible. In the Krishna temple in Malleswaram, the walking procession has been replaced on certain festival days such as Krishna Jayanthi (the birthday of Lord Krishna) by a motorized procession, that enables the procession to do a wider circuit of the neighbourhood, and reach more devotees. The procession has moved from being an intimate ritual experience, performed for a small group of devotees, to a visual spectacle that is accessible to everyone.

'The new float for Krishna Jayanthi was made of wooden cut-outs of swans, *dwarapalikas* (guardians of the gate) and images from Krishna mythology, faced with glitter, flowers and coloured paper and cloth. It looked more like film set

than a traditional *vahanam* (vehicle) used in Vaishnavite mythology. It towered about 30 feet high covered with tinsel, glitter paper, and electric bulbs. The whole thing, top heavy as it was, was mounted on the chassis of an open jeep. The front of the jeep was disguised with flowers and on the back was a huge structure topped by the idol draped in garlands of jasmine flowers. The idol sat in the middle of the jeep on a platform so it could be seen by all. On the engine of the jeep were mounted three klieg lights that shone directly into the driver's face even as they lit up the image. He kept covering his eyes with his hands so that he did not run over the revelers. All around the jeep hung huge lamps of variegated colours that blinked on and off and the outline of the structure was lit up with a series of lights. The float was one large explosion of colour and light.

The traditional temple musicians were nowhere to be seen, and the float was followed by a small bus carrying stereo sound equipment with a megaphone on which a mix of devotional *bhajans* (popular devotional music) and popular Hindi and Kannada film music were played. The *Nalayira prabandam* corps initially tried to drown out the songs on the public address system, but soon they became hoarse and gave up, muttering the poems of devotion under their breath. They were surrounded by light boys carrying large lights and their wires often got tangled up together forcing the procession to halt while someone unhooked them from one another. The entire procession was surrounded by generators on metal trolleys, making a thunderous racket, and wheeled along by happy street urchins.' *Extract from Field Diary—The Krishna Temple Procession. Krishna Jayanthi August 18th 1998*.

In this new form of visual spectacle, the vehicle of the deity *ratham* (chariot,) *pallakki* (palanquin) has been replaced by a truck, and the temple musicians by stereophonic sound systems. And the *Nalayira Prabandam*, and the core group of devotees, have been moved to marginal positions within the processional form. The experience of the procession is changed because of the incorporation of the technology. A combination of invention and appeal drives technological changes in established ritual. The spreading of some technologies leads to the reinvention of certain rituals with changes to accommodate the new technology. However, all the invented features appear to adapt familiar and well known ritual and visual forms as the basic symbolic alphabet of the new forms, changing them to fit the new circumstances. Furthermore, much of the ritual form adapting to technology appears to draw its inspiration from performance. The new performance ritual form incorporating recent technology has begun to marginalize the old form in neighbourhood temples. The new rituals are accessible to more Hindus form different castes and sub-cultures within India. This allows for a greater pluralism of interpretation. On the negative side, traditional authorities are often disregarded as the ritual forms shift, into a more modern language.

The Techno-Savvy Avatara: The Nation and the Divine Image

Everyday *puja* or public worship of the deity involves sixteen *upacaras* or parts of worship. Usually the temples in Malleswaram performed four of the critical elements—*abhishekam* (bathing of the deity), *alankara* (dressing of the deity), *naivedyam* (offering of food to the deity), and *deeparadhana* (offering of the sacred flame). Traditional *alankara* (the decoration of the deity) consisted of dressing the deity in rich silks, placing and attaching jewelry, and adorning the image with many flower garlands. On festival days, the priests often dressed the deity in significant and symbolic ways — for example, on Krishna Jayanthi day (the birth of Krishna), the image was dressed as a young child wearing yellow silk clothes and sporting a peacock feather; popular folk imagery of Krishna as a child cowherd.

In 1998, I found that Ghani Shastri and his son Kashi had taken to performing *alankara* for festivals and holidays that were not part of the traditional Hindu calendar of festivals. For example, on December 31,1998, Kashi had decorated the Ganesha deity in a money *alankara*, using fresh new rupee notes and shining coins to decorate both the deity and the sanctum. For several weeks prior to the event he had urged devotees who travelled frequently on business trips abroad to donate currency from other countries they may have visited. The currency collected were used creatively to decorate the *kiritam* (crown) of the deity. The sanctum bristled with Italian lira, Japanese yen, Saudi dinars, and even in a colonial riposte, the British Pound note. Further, Kashi insisted that the temple was kept open until two in the morning to enable devotees to get *darshan* (sacred sighting) of the deity on New Year's eve so that as he told me; 'Ganesha would remove all their troubles in the new year'[18].

The next day when I visited the Ganesha temple, I was told by excited informants that the Ganesha temple priests had outdone themselves. They said; '*yeshtu channagi alankara madiddare'* (how well they have done *alankara*), '*neevu hogi nodalebeku'* (you must see it). They all told me that the new year would 'definitely' bring them all prosperity as they had had *darshan* of 'Kasu Ganesha' (Coin/Money Ganesha)[19]. Kashi told me on January 2nd 1999 that the *darshan* was so successful that he would repeat it on New Year's eve, 1999, but he would make it 'even better' since it was a 'millennium celebration'.

Kashi was also innovative in using other new elements as possible *alankara* material to incorporate other secular holidays into the Hindu festival calendar. On August 15th 1998 (Indian Independence Day), he decorated the deity in the Indian tri-colour using silk material donated by one of Malleswaram's leading silk merchants. He decorated the entire temple using small Indian paper flags, which he later distributed to the waiting children. This *alankara* was so successful it drew

crowds that lined the main market street for six blocks. The police had to be called in to quell the crowds and to make sure that everyone got a chance to get *darshan*. The temple stayed open well beyond midnight to enable all those who had queued up to get *darshan* of the deity.

This nationalist *alankara* was deemed so successful by Kashi and Ghani Shastri that it has become a regular future part of the festival calendrical cycle. When I asked Kashi if it was right to conflate the nation state of India with the deity of Ganesha and Hinduism by dressing the deity in the colours of the nation state, he said in response, " People liked it. Even Muslims in India pray to Ganesha you know! Ganesha protects us all. So what? Anyone can say what they like but nobody can tell me how to dress Him". Babu Bhattar later told me that he had heard of the nationalist Ganesha *alankara* and was considering doing a nationalist *alankara* at the Krishna temple to draw additional devotees[20].

The third type of *alankara* that was introduced during my fieldwork in the Maha Ganpathi temple was to dress the idol of Ganesha in seasonal fruits and vegetables. Kashi showed me a photo album of about thirty different *alankaras* using specialty fruits and vegetables grown in various parts of India which devotees could order as a *seva* (offering in fulfillment of a vow). For example, he had an *alankara* made with oranges from Nagpur, pomegranates from Punjab, grapes from Karnataka, coconuts from Kerala, mangoes from Maharashtra, and pineapples from Goa. Later, he expanded the fruit *alankara* to include an expensive 'foreign' fruit. In this, he used Kiwi fruit from Australia, dates and other dried fruits from the Middle East, lychees, rambutans and persimmons from Singapore. This 'national' *versus* 'international' *alankara* was new to the devotees of the temple, and they took some time to catch on, but during my fieldwork I increasingly saw the deity dressed in the 'international' fruit *alankara*.

The strategy of conflating the Ganesha image with the nation state of India indicated by the use of the tricolour, and the extension of the deity to an international forum through the money and the fruit mirrors the socio-economic reality of India today. Indians are more and more connected financially and culturally to the rest of the world as the new *alankara* demonstrates.

The last *alankara* that the Maha Ganapathi temple developed and demonstrated in 1997-1998 was the robotic *alankara*. Kashi had long been fascinated by tableaus in which robotic arms moved and water was recycled in a cascade, and so on. Kashi had a videotape that his cousin had brought him from a trade fair in Germany, and he was determined to improvise upon some of the technological innovations he saw there. During early 1997, I found him fascinated by the video which he watched repeatedly. By mid-1997, he had mastered the tape and decided that he could, with the help of some engineering friends, create a moving arm or leg on the deity. He decided to try this on the Banshankari devi idol during the *Navarathri* celebration. The choice was particularly apt, since according

to the myth, the female goddess kills the evil demon Mahisha in the form of a buffalo, by running a trident through him.

For days before the celebration I found Kashi pushing and pulling at a mechanical apparatus in the lower courtyard. He was covered in motor oil and carrying a screwdriver. He enlisted the help of some of the younger priests who would ask visiting devotees, who they knew to be engineers, for help. Finally, the day for the *puja* arrived and after several hours of thuds and grunts behind the curtain, the idol of the goddess was revealed. The idol had one arm raised at an alarming height, which clutched a shining aluminium trident. At the goddesses' feet was a paper mache image of a buffalo with a severed head, from which ran red ink. The head was of the demon Mahisha with requisite staring eyes and protruding tongue. As we watched the spectacle transfixed, light bulbs within the sanctum flashed rhythmically, as the arm of the deity came down and the trident struck the buffalo's body with a dull thud. With some groaning and creaking, the arm was raised after a couple of minutes. The devotees were thrilled by the tableau and some even clapped. Kashi was very pleased with the effect of this *alankara* and he rigged up a system where the deity's arm would fall every few minutes for the nine days of the festival. I found devotees, especially children, watching the deity with tremendous concentration and unblinking eyes, so as not to miss the moving trident.

Recycling Deities: Longevity and Change

I found in my travels around Malleswaram that deities and *pujas* were undergoing a process of recycling. The recycling and reinvention of sacredness extended to deities that no longer served an understandable purpose. They were made to 'acquire' another ability by the priests in collusion with the devotees. For example, on the very edge of Malleswaram was a lone small temple dedicated to Amman, a female deity, evocative of Kali. The temple was erected sometime in the last century to ward off contagious diseases such as the plague and cholera. Such temples are still fairly common in small towns and villages. However, this particular temple outgrew the deity's specialty of infectious diseases. With modern sanitation brought to Malleswaram in 1943, the need for such a deity dwindled. With increasing access to modern medicine, in the 1970s and the 1980s the deity had largely been forgotten.

But, in 1995, I used to see a few trucks and vans parked in front of the temple on Fridays, the day of the week dedicated to Amman. Over the years I found that the number of trucks seemed to grow. A few of the drivers told me that they worshipped at this temple to avoid accidents on long journeys. Each year the number and type of vehicles parked outside it have increased. When I did fieldwork in Malleswaram in 1998 I found that over a hundred trucks and lorries came to the

temple every Friday and on *Ayudha puja* day (the day dedicated to the worship of the tools and vehicles of one's trade), the numbers swelled into the thousands as trucks from all over south India came to have *vandi puja* (vehicle protectionary *puja*) done. One had to wait over an hour to have a protectionary *puja* performed. The lone temple priest was replaced by a contingent of five young energetic priests who would run all over the temple forecourt and out into the street attending to the never ending line of trucks and autorickshaws. By 1998, the temple had gained popularity as 'Circle Maramma' temple, and had earned the reputation of being one of the premier vehicle protection temples in Bangalore.

This kind of 'recycling', if one may call it that, of deities is becoming popular among disused temples in Bangalore. The deity acquires a new 'talent' which is better suited for the current and more 'modern' needs of the devotees. In modern times, the efficacy and specificity of ritual is the core of its popularity. No longer are my friends willing to undertake rituals that are billed vaguely as 'increasing good health and prosperity in one's lifetime'. They want a specific ritual to address a specific problem within a designated period of time. The understanding of the ritual paradigm appears to be shifting, from overall protection to specific efficacy. When I talked about Circle Maramma's popularity, my informants chuckled, and one gentleman remarked perspicaciously, "Soon Bangalore will have a computer god, you wait and see, that is next."

As I mentioned earlier, Ghani, not to be outdone by the Circle Devi has added the *vandi puja* to the repertoire of the Maha Ganapathi Temple. He has plans to add a female *puja* for young unmarried women as part of the Banashankari Devi temple. For priests like Ghani the concept of the deity is not static and fixed but the specialty of the deity varies depending upon the needs of the devotees. But let me not give the reader the mistaken notion that the deity is any the less sacred to the devotees through these changes. It is merely that He or She adds another 'specialty' to His/ Her portfolio. The portfolio is extended by a layering process whereby the old role is gradually overlaid by the new role.

Conclusion

In conclusion it may be stated that in the neighbourhood urban temples of Bangalore entrepreneur priests appear to invent appropriate traditions in at least three ways: (a) by overlaying new symbolic meanings over older static traditions in what I have referred to earlier as 'recycling'; (b) by using one ritual structure in replacement of another; and (c) by adding an element of 'modern' interest in the older ritual structure, such as the use of computer animated automations as part of the *alankara* in the temples. Priests may borrow strategies from non-ritual traditions such as films, television and so on, to create the 'feel of ritual'.

I suggest that this new socio-economic frame with the new non-sectarian

middle class as potential clientele creates a field of competition. The field of competition encourages the rise of entrepreneur priests such as Babu Bhattar and Ghani Shastri. How does this discourse of invention function within the ritual context and what the 'invention of tradition' means in these cases? I argue that the answer is to be found in what Bell (1997:235) asserts that priests create and employ new ritual paradigms. Bell states that "Ritual forms do not build community by simply expressing sentiments of collective harmony; they do so by channelling conflict, focusing grievances, socializing participants into more embracing codes of symbolic behaviour, negotiating power relations, and ultimately forging images by which the participants can think of themselves as an embracing unity". It is clear that the entrepreneur priests seek ways to make Hinduism attractive and accessible to their clientele, while simultaneously harnessing more power and status for themselves. The entrepreneur priests choose their strategies carefully and with a view to achieving their goals. They tread a fine line, between moving their devotees into the future on the one hand, and retaining some recognizable links with a mythical pure 'Hindu' past, on the other, while raising questions of the authenticity of the ritual and their efficacy.

This new ritual (Bell 1997: 241) paradigm where rituals are structured to enable social mobility, creates new identity, obtains material wealth, and so on, creates and enacts new links between the devotee and this world. Ultimately, the rituals in the Malleswaram temples are embodiments of the lived traditions of its inhabitants. As their lives change, so do the structures of their rituals. We can argue whether these changes can be deemed 'progress', or should be seen as the poverty of 'this worldliness' affecting the conception of divinity. However, one can argue that functionally the ritual serves an important purpose. It appears that Indian society has not put in place many of the western legal and social institutions to deal with the stresses of a 'modern' existence, such as, the acceptance of access to psychiatry and counselling services, social security for the elderly, universal health coverage, and so on,, and so the proliferation of rituals that focus upon the allaying of the anxieties of modern life is a legitimate way to deal with the stresses of an imported modernity.

It is clear that a plurality of multi-vocal and contested ritual paradigms exists in the neighbourhood urban Hindu temple, and these seemingly disparate elements fuse to create a workable transition zone, as Indians incorporate the larger changes in the world economy into their ritual lives. These new rituals are the carriers of modernity, globalization, and tradition, for a community that is rapidly changing. The rituals incorporate both the universalism and inclusion of globality while maintaining a particular sense of meaning and identity vital for the creation of community. Thus, the priests in creating and performing these strategies of engagement are, in fact, straddling the divide between the local and the global and acting as cultural translators between the two.

Notes

[1] I would like to thank Prof. Peter L. Berger for encouraging me to attempt this paper. Thanks also to Professors Nur Yalman, Michael M.J. Fischer and Robert P. Weller for their discussions with me on the subject, and their careful reading of earlier versions of this paper. To Prof. M.N. Srinivas for his patient encouragement, his careful demonstration of field work methods, and his enjoyment of my field work stories. I remain indebted to the priests, devotees, informants and friends at the Hindu temples in Malleswaram, who were kind and generous with their time, information, and their opinions. I thank Prof. G.K. Karanth for his critical comments and suggestions.

[2] I distinguish 'neighbourhood' urban Hindu temples that devotees visit every day from the large pilgrimage temples that devotees may visit annually or once in a lifetime. I argue that it is in 'neighbourhood' temples that devotees learn how to 'be Hindu' in an everyday sense through interactions with the local priest and other devotees.

[3] But most of these important temples are centres of pilgrimage, and are not the way most Hindus experience, and are socialized into, Hinduism.

[4] Scholars deal with religious innovation by arguing that it is part of the 'popular' form of the religion, as opposed to textual sources that are the 'official' form of the religion. This differentiation has led to devaluing ritual innovation. Locating a clear textual source for existing ritual, and finding its authentic form, has occupied scholars of anthropology and Indology in India.

[5] I argue that changing cultural canvas, which influence significant symbolic parameters such as, choice, values, morality, tradition, and identity, from which the rituals derive symbolic meaning.

[6] I am not alone when I argue that the globalization theory should not take a dialectic form pitting the 'local' against the 'global' but should look at the intersections between the two through micro ethnographies, to determine how the processes of globalization function.

[7] In this, I borrow from Waghornes' work on temples (Waghorne 1999: 648-86).

[8] Specialists in Indian economics, such as Jagdish Bhagwati, (2004 *In Defense of Globalization.* Oxford University Press. New York) warn that the bubble of this economy may well burst unless pursued thoroughly by the Indian government. But India has pursued the free trade alternatively vigorously though cautiously opening the economy and instituting new economic policies that are market friendly, private investment driven, and that cover internal and external trade relations.

[9] Scholars put the number of the Indian middle class anywhere between 100 and 250 million, a significant number by any standards.

[10] I use Kannada and Tamil terms interchangeably as did my informants while talking to me. However, as an ethnographer I am aware that they perceived me as Tamil. In interactions among themselves they used Kannada, the local language.

[11] *Agama shastras* are a compilation texts of the science and the art of performing temple rituals.

[12] Traditionally certain upper caste devotees and patrons had hereditary right and duties at the temple. These rights included precedence in *prasadam* (consecrated food) distribution, lifting of the sacred palanquin (pallaki), and other such ritual privileges. The duties included being present on ritual festivals, contributing and supporting the temple financially, and so on.

[13] I found that temple priests now offer services and *pujas* at their homes, not necessarily within the temple. These *pujas* may be special *vratas* or vows, astrological consultations, or special *pujas* catering to solving the particular individuals problem. Yet, other priests like Ghani use their homes as an extension of the temple premises. *Pujas* for special groups such as women or children are conducted in their homes on regular basis.

[14] For example, one of my chief informants in the Krishna temple was a highly orthodox Vaishnavite woman named Padma. She knew every single Vaishnavite festival day and pledged her allegiance to Vishnu in his many forms everyday reciting the Vishnu *sahasranama* (1,000 names of Vishnu) and the Lakshmi *stotra* (dedication to goddess Lakshmi, Vishnu's consort). However, on Sankastha Chathurthi day (14th day of the new moon dedicated to removing obstacles, and sacred to Ganesha) I found her at the Ganesha temple participating in the festivities. When I asked her about her presence she at first looked abashed and then said; 'They are all one god, Brahman after all. I come here when it is Ganesha *puja* day'.

[15] Interview with Padma and Krishna, September 2002.

[16] Department of Religious and Charitable Endowments, Government of Karnataka. This department is a statutory body set up to administer Hindu temples in the state of Karnataka. It is popularly referred to as the "Muzrai Board".

[17] Levi Strauss.1966 (1962) The Savage Mind. University of Chicago Press. Chicago.

'And in our own time the 'bricoleur' is still someone who works with his hands and uses devious means compared to those of a craftsman. The characteristic feature of mythical thought is that it expresses itself by means of a heterogeneous repertoire which, even if extensive, is nevertheless limited. It has to use this repertoire, however, whatever the task in hand because it has nothing else at its disposal. Mythical thought is therefore a kind of intellectual 'bricolage' — which explains the relation which can be perceived between the two. Like 'bricolage' on the technical plane, mythical reflection can reach brilliant unforeseen results on the intellectual plane. Conversely, attention has often been drawn to the mytho-poetical nature of 'bricolage' on the plane of so-called 'raw' or 'naive' art, in architectural follies like the villa of Cheval the postman or the stage sets of Georges Me1ies, or, again, in the case immortalized by Dickens in *Great Expectations* but no doubt originally inspired by observation, of Mr Wemmick's suburban 'castle' with its miniature drawbridge, its cannon firing at nine o'clock, its bed of salad and cucumbers, thanks to which its occupants could withstand a siege if necessary

> ...The analogy is worth pursuing since it helps us to see the real relations between the two types of scientific knowledge we have distinguished. The 'bricoleur' is adept at performing a large number of diverse tasks; but, unlike the engineer, he does not subordinate each of them to the availability of raw materials and tools conceived and procured for the purpose of the project. His universe of instruments is closed and the rules of his game are always to make do with 'whatever is at hand', that is to say with a set of tools and materials which is always finite and is also heterogeneous because what it contains bears no relation to the current project, or indeed to any particular project, but is the contingent result of all the occasions there have been to renew or enrich the stock or to maintain it with the remains of previous constructions or destructions. The set of the 'bricoleur's' means cannot therefore be defined in terms of a project (which would presuppose besides, that, as in the case of the engineer, there were, at least in theory, as many sets of tools and materials or 'instrumental sets', as there are different kinds of projects). It is to be defined only by its potential use or, putting this another way and in the language of the 'bricoleur' himself, because the elements are collected or retained on the principle that 'they may always come in handy'.

[18] Interestingly, Ghani was not alone in this. The Western New Year, i.e., January 1, is an occasion for most urban neighbourhood temples to have specific *pujas* but usually these *pujas* are confined to temples with the Ganesha deity. The other temple that draws enormous crowds on New Year's day is the Tirupathi Temple dedicated to Venkateshwara, a form of Vishnu.

[19] 'Kasu Ganesha' was not a form of Ganesha I had encountered before. Hitherto, folk and other perceptions of Ganesha have created established forms: Siddi (miraculous), Bal Murali (child with a flute), sleeping, and so on. Some forms refer to believed powers of the deity and others to the form of the idol. Kasu Ganesha is a new form with one important difference: the same image had *alankara* of different commodities on following days — butter, flowers, fruit etc. The devotees decided that this was a legitimate form of the Ganesha image and spontaneously named it.

[20] Scholars may suggest that this points to an increasing Hindu nationalism in India. However, I suggest that while the priests were not insensitive to the political overtones of the *alankara*, the primary motivation was to bring in a large clientele.

References

Appadurai, Arjun (1981). *Worship and Conflict Under Colonial Rule: A South Indian Case.* Cambridge: Cambridge University Press.

Babb, Lawrence, A. (1975). *The Divine Hierarchy; Popular Hinduism in Central India.* New York: Columbia University Press.

Berger, Peter L. (1997). Four Faces of Global Culture. *National Interest*, Fall.

Dumont, L. (1970). *Religion, Politics and History in India.* Paris: Mouton.

Eck, Diana (1981). *Darshan: Seeing the Divine Image in India*. Chambersburg, PA: Anima Books.

Evans, Pritchard, E. E. (1974). *Nuer Religion*. New York: Oxford University Press.

Fischer, Michael, M. J. (1999). Forms of Life: Anthropology of Late or Post Modernities. *Annual Review of Anthropology*.

Friedman, Thomas, L. (2000). *The Lexus and the Olive Tree — Understanding Globalization.* Farrar Straus & Giroux.

Fuller, C.J. (1979). Gods, Priests, and Purity: On the Relation Between Hinduism and the Caste System. *Man,* 14(3): 459-76.

———. (1992). *The Camphor Flame: Popular Hinduism and Society in India.* Princeton, New Jersey: Princeton University Press.

Geertz, Clifford (1960). *The Religion of Java.* New York: Free Press.

Jameson, Frederick (1991). *Post Modernism or the Cultural Logic of Late Capitalism.* Durham, NC: Duke University Press.

Luckmann, Thomas (1967). *The Invisible Religion.* New York: Macmillan.

Moore, Lawrence R. (1994). *Selling God; American Religion in the Marketplace of Culture*. New York: Oxford University Press.

Parry, Jonathan P. (1979). *Caste and Kinship in Kangra*. New Delhi: Vikas Publishing House Pvt. Ltd.

——— (1994). *Death in Benaras*. Cambridge: Cambridge University Press.

Srinivas, M.N. (1976). *The Remembered Village.* Berkeley, CA: University of California Press.

Srinivas, Smriti (2001). *Landscapes of Urban Memory; the Sacred and the Civic in India's High Tech City*. Minneapolis. University of Minnesota Press.

Srinivas, Tulasi (2002). A Tryst with Destiny: The Indian Case of Cultural Globalization. In Peter L. Berger, and Samuel P. Huntington (eds.). *Many Globalizations*. New York: Oxford University Press.

Turner, Victor (1974). *Dramas, Fields and Metaphors: Symbolic Action in Human Society*. Ithaca, NY: Cornell University Press.

——— (1967). *The Forest of Symbols: Aspects of Ndembu Ritual*. Ithaca, N.Y: Cornell University Press.

van der Veer, P. (1994). *Religious Nationalism: Hindus and Muslims in India*. Berkeley: University of California Press.

van Gennep, Arnold (1960). *The Rites of Passage*. Tarns. M.B. Vizedom and G.L. Caffee. Chicago: University of Chicago Press.

Vanaik, Achin (1997) *The Furies of Indian Communalism; Religion, Modernity and Secularization*. New York: Verso Press.

Waghorne, Joanne Punzo (1999). The Diaspora of the Gods: Hindu Temples in the New World System 1640-1800. *Journal of Asian Studies*, 58(3): 648-86.

Cointegration Analysis-Causality Testing and Wagner's Law: The Case of Nigeria, 1970–2001

P. Akanni Olomola*

Abstract

The objective of this paper was to examine the causal relationship between national income and public expenditures in Nigeria in the short- and long-run. The paper adopted the cointegration procedure to investigate the causal relationship between public expenditure and national income (per capita GNP) for Nigeria over the period 1970 to 2001. The VECM was estimated to ascertain the direction of causality between the two series. The causality test results indicated that economic growth granger-caused public expenditure, both in the short-and long run. This finding supported the Wagner's hypothesis for Nigeria.

Introduction

One of the main features of the contemporary world has been the continued growth in the relative size of the public sector in both developing and developed countries. In particular, after the Second World War, the phenomenon of public expenditure growth happened almost universally and regardless of the nature of either the political or economic system concerned. Thus, the growth of public expenditure as a proportion of GDP received considerable attention from economists, who mainly directed their attention to the analysis of the reasons for the permanent growth of public expenditure.

Wagner (1883), writing more than one hundred years ago, offered a model of the determination of public expenditure in which public expenditure growth was a natural consequence of economic growth. Later, his views were formulated as a law and are often referred to as "Wagner's Law". This law states that there is a long-run tendency for public expenditure to grow relative to some national aggregates such as the national income. The underlying reasoning is that sectors with high social priority and low rates of return would not attract private investment and hence, need channelization of government fund. The aim of government is to attain better allocative and distributive equality through greater disbursement of public and quasi-public goods (Dutt and Ghosh 1997). This government participation can be seen as an important part of public expenditures aimed at achieving optimal outcomes with respect to supply of these public goods.

* Department of Economics, Obafemi Awolowo University, Ile-Ife, Osun-State, Nigeria. E-mail: polomola@yahoo.ca; Telephone: +234-803-7064485

In Wagner's model, public expenditure is seen as an outcome rather than a cause of national income. As the economy expands due to rapid industrialization, public sector activity is substituted for private activities. The need for social overhead capital, such as power generation, roads, provision of telecommunication facilities, etc., and the desired effects of income elastic expenditures such as education and health, for example, puts pressure on the public sector. Thus, causality is expected to run from national income to public expenditures.

However, in a reaction to Wagner's law and justifying the role of the public sector in leading economic growth, Keynesian economists argued that public expenditure was not an endogenous phenomenon, but rather an exogenous variable capable of generating economic growth. Any attempt to promote growth can be successful by a careful manipulation of public expenditures to stimulate output growth. Hence, in this framework, public expenditure became a policy variable. Here, causality runs from public expenditure to national income.

Various studies have been carried out over the years to analyze and test Wagner's Law. Most of these studies, notably, Musgrave (1969), Sahni and Singh (1984), Abizadeh and Gray (1985), Ram (1986, 1987), Henrekson (1993), Courakis *et al*. (1993), Murthy (1993), Oxley (1994), Ansari *et al*. (1997) and Chletsos and Kollias (1997), among others, have applied traditional regression analysis, whilst some others have used causality testing, and more recently cointegration analysis has appeared in the literature. Empirical tests of Wagner's Law have yielded results that differ considerably from country to country and period to period. For example, in a recent study, Demirbas (1999) found no evidence to support either Wagner's Law or Keynesian hypothesis using annual data from Turkey while Jackson *et al.* (1999) in a study of Cyprus found mixed evidence, as causality is bi-directional.

Among the new studies that have approached Wagner's Law in this manner are Henrekson (1993), Bohl (1996) and Payne and Ewing (1996). Henrekson (1993) tested for Wagner's Law in Sweden, using data from 1861 to 1990. He found that the levels of the two variables, real government size and per capita income, were not stationary, but became so upon first differencing. In addition, Henrekson found that the two series were not cointegrated, so that no consistent estimate of income elasticity could be made. He concluded that no long-run relationship could be established for Sweden and hence that it was unlikely that "growth in real income *per se* caused the growth of government". Bohl (1996) tested for evidence of Wagner's Law on G7 countries using primarily post-World War II data. He found that all the time-series variables were I (1). Furthermore, he found evidence of a long-run relationship only for Canada and the UK. In all the other countries, the null hypothesis of non-cointegration could not be rejected. Bohl then proceeded to test for Granger causality in these two countries alone and concluded that since real per capita income Granger caused government size, Wagner's Law was supported. In another development, Payne and Ewing (1996) used an error correction model to

test for Wagner's hypothesis on a sample of 22 randomly selected countries. Evidence of Wagner's Law is found only for Australia, Colombia, Germany, Malaysia, Pakistan and the Philippines. Bi-directional causality is found for India, Peru, Sweden, Switzerland, UK, U.S., and Venezuela, and Granger causality is absent in Chile, Finland, Greece, Honduras, Italy and Japan.

A recent study by Lin (1995) reexamined Murthy (1993) and analyzed data from Mexico for the 1950–80 and 1950–90 periods. The evidence was mixed with support for Wagner's Law in the latter period and rejection for the same for the former period. Thus, the results of extant research on Wagner's law were inconclusive (Dutt and Ghosh 1997), and hence, a re-examination of the law with increasingly sophisticated econometric methodology a consequence (Sinha 1998).

All these results point to the fact that the direction of causality between government spending and economic growth is inconclusive. Unfortunately, studies in this area for Nigeria are sparse. This study attempts to bridge this gap. Thus, the aim of this paper is to investigate whether the Nigerian case supports Wagner's Law or not.

Trends of Public Expenditure in Nigeria

Nigeria appears to follow this universally observed "rule" of permanent growth of public expenditure. During the period between 1970 and 2001, economic growth, social and political changes were accompanied by a sharp increase in government spending. Government expenditure in Nigeria, as illustrated in Table A1 in the appendix, rose from N834 million (Naira) in 1971 to about N191, 229 million (Naira) in 1993 and about N443, 563 million in 1998.

The huge government spending has been as a result of constitutional spending responsibilities on the government in specific areas such as defence, education, and some aspects of road construction, agriculture, health, and social welfare and to some extent industrial promotion. Moreover, government is a large employer of labour and wage bills are often so high, constituting a significant proportion of government recurrent expenditures. Also, increased external debt service obligations have put pressure on government spending over the years. The government embarked upon many capital projects.

Perhaps, the extent of the change can be appreciated more when government expenditure is related to the GNP. Whereas in 1970, the total government expenditure as related to GNP was about 27 per cent, by 1973 it had increased by more than one quarter, rising to about 30 per cent in 1980. It declined to about 23.6 per cent in 1982 and steadily rose to 25.2 per cent in 1990. By 1999, however, it had declined to 17.5 per cent, 17.2 per cent in 2000, and 16.5 per cent in 2001.

Data and Methodology

As noted by Sinha (1998) and Dutt and Ghosh (1997), Wagner was not technically explicit in the formulation of his hypothesis. Hence, over the years, confusion sometimes surrounds the testing of Wagner's Law because different authors use different specifications of the test. For instance, Musgrave (1969) argued that Wagner was not clear about the growth of the public sector, whether it was in absolute or in relative terms. In the absolute sense, the growth in government output would be a normal good with an elasticity of positive but less than one (Dutt and Ghosh 1997). Recent works have adopted the relative version that implies that increasing proportions of public goods to total output would lead to higher level of economic activity.

There are at least six versions of this law that have been empirically investigated. However, as argued by Demirbas (1999), there is no objective criterion to decide which of the six versions is the most appropriate and convincing testing of the Law. So, in this study, we need to consider and test all the six versions of Wagner's Law for Nigeria during the period 1970 to 2001. Thus, as a first step, each of these six equations is estimated to be able to determine which of the six versions are appropriate for the Nigerian economy. This requires testing for cointegration for all the models and adopts the cointegrated ones to test for Granger causality. The equations are specified below and have all been estimated in terms of constant Nigerian naira and are specified in logarithmic forms, so that it will be possible to obtain measures of income elasticity directly.

LE = a + bLGNP	[Peacock-Wiseman [1961]...	(1)
LC = a + bLGNP	[Pryor [1969] . . .	(2)
LE = a + bL(GNP/P)	[Goffman [1968] . . .	(3)
L(E/GNP) = a + bL(GNP/P)	[Musgrave [1969] . . .	(4)
L(E/P) = a + bL(GNP/P)	[Gupta [1967] . . .	(5)
L(E/GNP) = a + bLGNP	["Modified" version of P-W suggested by Mann [1980] . .	(6)

Where LE = logarithm of total expenditures;
LGNP= logarithm of Gross National Product;
LGNP/P = logarithm of GNP per capita;
L(E/GNP) = logarithm of Expenditure share of National Income;
L(E/P) = logarithm of per capita Expenditure;

Following Nagarajan and Spears (1990), Murthy (1993), Dutt and Ghosh (1997), Musgrave (1969) and Mann (1980), the equations are further modified to account for GNP per capita so that an attempt is made to study the relationship between the share of government expenditures in real GNP (E/GNP) and real GNP per capita (GNP/P). Although Wagner did not distinguish between nominal and real shares of the government in GDP, the use of real variables as opposed to the current

and nominal is more logical as the latter is liable to produce biased results (Sinha 1998). Nevertheless, we attempt to treat equation (6) separately for comparative analysis.

Following Musgrave (1969), equation (4) becomes

$$\ln(E / GNP) = \alpha_o + \alpha_1 \ln(GNP / P) + \varepsilon_t \quad \ldots (7)$$

If Wagner's Law is to hold, the two series have to be cointegrated and they will have long-term co-movements evidenced by the number of cointegrating vectors. To determine the long-run relationship between government expenditures and economic growth, the Johansen cointegration procedure is utilized (see Johansen 1991, and Johansen and Juselius 1990).

The VAR analysis starts from the reduced form-standard VAR(p) model of the form:

$$y_t = A_1 y_{t-1} + \ldots + A_p y_{t-p} + \mu_t \quad \ldots (8)$$

where y is a vector of E/GDP and GDP/P. It is assumed here that both E/GNP and GNP/P are non-stationary variables. Thus, to determine the long-run relationship between government expenditures and economic growth, the procedure involves the estimation of Vector Error Correction (VECM) in order to obtain the likelihood-ratios (LR) for the short-run relationship. The approach is set up as a vector auto regression (VAR) of non-stationary series:

$$\Delta y_t = \prod y_{t-1} + \sum_{i=1}^{k-1} \Gamma_i \Delta y_{t-1} + v_t \quad (9)$$

Δ is the difference operator that induces stationary; μ are the intercepts, and v_t is a vector of normally and independently distributed error terms, $v=[v_{1t}, v_{2t})'$. The model is assumed to be vector white noise, that is, v_t has mean zero, $E[v_t]=0$, and nonsingular covariance matrix $\Sigma_v = E[v_t v'_t]$ for all. The coefficient matrix, Π, is also referred to as the long-run impact matrix. It contains information about the stationarity of the variables and the long-run relationship between them government expenditures and economic growth.

The existence of cointegrating vectors (v) implies Π is rank-deficient (Kul and Khan 1999). If Π is of full rank, that is, r=p, (where p, the number of variables=2 in this case), then both E/GNP and GNP/P are themselves stationary with no common stochastic trend or long-run relationship existing between them. On the other hand, if Π is a full matrix, that is, r=0, then cointegration is not also present but E/GNP and GNP/P are non-stationary. In this case, the usual VAR model is specified. The number of significant non-zero eigen values determines the number of cointegrating vectors in the system. However, if Π is of rank $r(0<r< 2)$, then there is at least one linear combination of E/GNP and GNP/P that is stationary. This is an indication that the variables are cointegrated in the long-run with at least one (r=1) cointegrating vector. In this case, Π can be decomposed as $\Pi=\varphi z'$, while $\varphi_{(5xr)}$ and $z_{(5xr)}$;.

If government expenditures and economic growth are cointegrated, then there exists at least Granger causality in at least one direction. To establish the feedback effect, the following relationship is used:

$$\begin{pmatrix} \Delta E/GNP \\ \Delta GNP/P \end{pmatrix} = \begin{pmatrix} a_1 \\ a_2 \end{pmatrix} + \begin{pmatrix} \Phi_{11}(L) & \Phi_{12}(L) \\ \Phi_{21}(L) & \Phi_{22}(L) \end{pmatrix} \begin{pmatrix} \Delta E/GNP \\ \Delta GNP/P \end{pmatrix} + \begin{pmatrix} \Psi_1 z_{1,t-1} \\ \Psi_2 z_{2,t-1} \end{pmatrix} + \begin{pmatrix} \Omega(L) & 0 \\ 0 & \Omega(L) \end{pmatrix} \begin{pmatrix} e_1 \\ e_2 \end{pmatrix} \quad \ldots(10)$$

The rows of z are interpreted as the distinct cointegrating vectors. The Ω(L) are finite polynomials in the lag operator. The Ψ's are the error-correction coefficients (loading factors) which indicate the speed of adjustment towards long-run equilibrium. According to Granger (1988), this approach is particularly attractive over the standard VAR because it permits temporary causality to emerge from: (1) the sum of the lagged coefficients of the explanatory differenced variable; and (2) the coefficient of the error-correction term. In addition, the VECM allows causality to emerge even if the coefficients of the lagged differences of the explanatory variable are not jointly significant (see Miller and Russek 1990; Miller 1991; Engle and Granger 1987; Granger 1983; and, Anoruo and Ahmad 2001).

In the model, the null hypothesis of non-causality from public expenditures to economic growth is rejected if either the group coefficient on the government spending is significant or the coefficient of lagged error-correction term is negative and statistically significant. The statistical significance of d^k_{21} (L) and Φ is exposed through joint F and t-tests. The F-test of the explanatory variables (in first differences) indicates the "short-run" causal effects, whereas the long-run causal relationship is implied through the significance or otherwise of the t-test of the lagged error-correction term that contains the long-run information.

The data for the Gross National Product (GNP) and Government Spending (E) for the period 1970 to 1995 were sourced from the International Financial Statistics (IFS) Yearbook published by the International Monetary Fund; while the figures for 1995 to 2001 were obtained from the Statistical Bulletin, published by the Central Bank of Nigeria. Population (P) figures were obtained from the IFS.

Empirical Results

As a first step, the time-series properties of the variables in the models have to be tested for stationarity. The Augmented Dickey Fuller (ADF) test was employed for this purpose. The results of the ADF unit root tests were presented in Tables 1 and 2 without trend and with trend, respectively. The null hypothesis of non-stationarity of public expenditures and economic growth was tested against the alternative hypothesis of stationarity. In table 1, the results indicate that at 5 per cent level of significance, all the variables are non-stationary. However, it is evidenced that at 1 per cent critical level, L(GNP/P), L(E/P) and L(E/GNP) are stationary at levels. After first differencing, however, the variables of no unit root are rejected in all of the cases.

Table 1: ADF Unit Root Test (Without Trend)

Series	Levels	First Difference
L(E)	-0.68	-3.32
L(GNP)	0.04	-3.25
L(GNP/P)	-2.76	-3.64
L(E/P)	-2.83	-3.42
L(E/GNP)	-3.11	-4.86
L(C/GNP)	-1.62	-4.63

Critical values: 5% = -2.97; 1% = -2.62

Table 2: ADF Unit Root Test With Trend

Series	Levels	First Difference
L(E)	-1.84	-3.26
L(GNP)	-1.47	-3.11
L(GNP/P)	-3.01	-3.67
L(E/P)	-3.16	-3.41
L(E/GNP)	-3.15	-4.79
L(C/GNP)	-2.76	-4.54

Critical values: 5% = -3.58; 1% = -3.22

In Table 2, the result is different. At both 5 per cent and 1 per cent levels of significance, all the variables are non-stationary at their levels. However, L(GNP), L(E) and L(E/P) are still non-stationary after first-differencing, while the other variables: L(GNP/P), L(E/GNP) and L(C/GNP) are all stationary after first differencing them. At 1 per cent level of significance, however, L(E) and L(E/P) are significant at their first differences.

The results of the Augmented Dickey Fuller (ADF) test cannot be said to be conclusive evidence of the time-series properties of the data. This is because the ADF test has been described as being too restrictive given the assumption of independently and identically distributed gaussian process. Moreover, they cannot distinguish between unit roots and near unit root stationary processes (Dutt and Ghosh 1997). Kwiatkoswki *et al.* (1992) proposed a powerful test (KPSS test), which tests the null of stationarity against the alternative of a unit root. The results of the KPSS test have been summarized in Tables 3 and 4 below, the latter with trend.

The results as evidenced from Tables 3 and 4 above are not significantly different from those in Tables 1 and 2. The differences, however, are that the KPSS test fail to reject the assumption of stationarity for L(E) and L(E/P) with and without

Table 3: KPSS Test (Without Trend)

Series	Levels η_1	First Difference η_2
L(E)	0.58	0.43
L(GNP)	0.10	1.83
L(GNP/P)	0.27	1.88
L(E/P)	0.13	0.97
L(E/GNP)	0.44	1.57
L(C/GNP)	0.11	0.18

Table 4: KPSS Test (With Trend)

Series	Levels η_1	First Difference η_2
L(E)	0.46	0.21
L(GNP)	0.11	1.22
L(GNP/P)	0.01	1.38
L(E/P)	0.21	0.31
L(E/GNP)	0.17	1.98
L(C/GNP)	0.28	1.66

Critical values at 5%=0.146 and 0.464 for η_1 and η_2, respectively.

trend, while the hypothesis of stationarity was rejected for L(C/GNP) with trend whereas it was not rejected without trend.

The next step of the study involves the application of the Johansen procedure to ascertain whether the variables in the models are cointegrated. The results of the Johansen Cointegration test have been presented in Tables 5 and 6 below.

Tables 5 and 6 report tests of cointegration in the framework of Johansen (1988) treating the variables on the basis of their stationary properties. The trace statistics show that the VAR has two cointegrating vectors each for L(E/GNP) and L(GNP/P), and L(E/GNP) and L(GNP/P), that is models (4) and (5). A similar pattern has been displayed by the results of the maximal eigen values. Given these results, and the fact that under the Johansen method, trace tests are more robust than maximal eigenvalue statistics in testing cointegration, it is therefore pointed out that equations (1), (2), (3), and (6), failed the cointegration test.

Table 5: Johansen Cointegration Test Results
(Trace Statistics under H_o:rank=2)

Modes	Trace Statistics		Hypothesized
	Rank=0	Rank<2	No. of Cointegration
L(E) and L(GNP)	11.9	6.2	None*
L(C) and L(GNP)	10.2	6.1	None*
L(E) and L(GNP/P)	11.6	6.5	None*
L(E/GNP) and L(GNP/P)	21.9	8.3	One**
L(E/P) and L(GNP/P)	21.9	8.3	One**
L(E/GNP) and L(GNP)	12.1	7.1	None*
L(C/GNP) and L(GNP/P)	12.2	7.1	None*

* Denotes the rejection of the alternative hypothesis at both 1% and 5% levels of significance.
** Denotes rejection of the hypothesis at 1 per cent level of significance
The 5 per cent critical values for the trace tests are 17.88 and 7.5 for r=0 and r=1 respectively.

Table 6: Johansen Cointegration Test Results
(Maximal Eigenvalue Statistics under H_o:rank=2

Modes	Trace Statistics		Hypothesized
	Rank=0	Rank<2	No. of Cointegration
L(E) and L(GNP)	10.2	6.2	None*
L(C) and L(GNP)	12.3	6.3	None*
L(E) and L(GNP/P)	11.1	6.5	None*
L(E/GNP) and L(GNP/P)	20.2	8.3	One**
L(E/P) and L(GNP/P)	20.2	8.3	One**
L(E/GNP) and L(GNP)	12.1	7.0	None*
L(C/GNP) and L(GNP/P)	12.2	6.9	None*

* Denotes the rejection of the alternative hypothesis at both 1% and 5% levels of significance.
** Denotes rejection of the hypothesis at 1 per cent level of significance
The 5 per cent critical values for the trace tests are 15.41 and 20.04 for r=0 and r=1 respectively.

Interestingly, equation (4), and hence equations (7) and (5), that is, models by Musgrave (1969) and Gupta (1967), produced the same cointegration results. Hence, to test Wagner's hypothesis, either equation (4) or (5) may be used since the elasticities from the respective equations are monotonically related to each other (Singh 1997). We used equations (4 and 5) for this study. The null hypothesis of no cointegration between public expenditures and economic growth has been rejected at 1 per cent significance level. The cointegrating equation for equation (4) is given as:

$$L(E/GNP) = -0.50L(GNP/P) + 5.5$$
$$L(E/P) = -1.5L(GNP/P) + 5.5$$

Here, both L(E/GNP) was normalized to 1.00. Thus, we established that there was a long-run equilibrium relationship between expenditures and per capita income in Nigeria, and the existence of causality in at least one direction. Given the results of the cointegration tests, we next estimated the VECM of equation (5) to determine the direction of causality between expenditures and national income. Granger (1988) argued that when the variables were cointegrated, the standard Granger (1969) causality tests were not valid. There is therefore, the need to incorporate the error-correction term into the model. Thus, adoption of this approach generated the results of the bivariate causality test from the VECM as presented in Table 7 below.

Table 7: Causality Tests Based on VECM: F -Statistic

Equations	z_{t-1}	L(E/GNP)	L(GNP/P)
L(E/GNP)	4.04*	1.64	5.10*
L(GNP/P)	1.82	1.53	1.56

* Associated with the F -statistic represents statistical significance at the 5 per cent level.

The results indicate that in the expenditure equation, the null hypothesis is rejected at 5 per cent level of significance, as the F-statistic of the coefficients is 5.1. This implies that in the short-run, national income (GNP per capita) causes public expenditures. The null hypothesis cannot be rejected, however, in the output equation. Thus, there is one-way causality (no feedback) between income and expenditures in Nigeria, as short-run causality runs from national income to public expenditures. The t-statistic on the error correction term is significant at 5 per cent level. Thus, there is long-run causality between national income and public expenditures in Nigeria.

The result above suggests that Wagner's hypothesis that, as a country's per capita GNP in real terms rises, its public expenditure rises more than proportionately, is validated for Nigeria for the period 1970 to 2001. It confirms similar findings for India (Singh 1997) and Cyprus (Jackson *et al.* 1999). The reasons for these results are quite understandable. First, there have been the expanding needs for social services and basic infrastructures, due to rapid urbanization and population growth. Moreover, fortunes from oil booms in the 1970s and occasional bubbles in the prices of oil in the international markets led to expanding development plans that involved huge injection of capital in the economy (Gavin 1993), and put pressures on the government to raise wages in 1972 and 1999. These increased the public expenditure and enhanced the role of a public sector in the Nigerian economy.

Conclusions

The study adopted the cointegration procedure to investigate the causal relationship between public expenditure and national income (per capita GNP) for Nigeria over the period 1970 to 2001. Specifically, the study adopted the Johansen cointegrated approach to determine the rank(s) of the cointegrating space spanned by the stochastic process of economic growth and public expenditure. The VECM was estimated to ascertain the direction of causality between the two series.

The study found that, of the six versions of Wagner's law, only two of them were cointegrated and the results of the two cointegrated equations were the same since they related to each other monotonically. Hence, only one of them (model 5) was used for the analysis. The causality test results indicated that economic growth granger-caused public expenditure, both in the short-and long run. This implies that Wagner's hypothesis has been operative with respect to public expenditures in Nigeria. This finding is consistent with studies in India (Singh 1997) and Cyprus (Jackson *et al*. 1999). The policy implication of this study is that since the validity of Wagner's law has significant impact on the long-run economic stability and external borrowing, the government should be aware of the danger of increased public sector participation in the face of unstable and uncertain revenue flow from crude oil sales whose prices are susceptible to fluctuation. Furthermore, declining revenue to finance expenditures may lead to alternative financing methods, which could have severe macroeconomic consequences.

Appendix A1: Trends of Government Expenditures in Nigeria: 1970–2001 (Naira – in millions)

Year	Capital Expenditure	Recurrent Expenditure	Total Expenditure	Total Expenditure/ GNP Ratio (%)
1970	187.8000	716.0000	903.9000	17.63707
1971	173.6000	823.6000	997.2000	14.55129
1972	451.3000	1012.300	1463.500	20.51731
1973	565.7000	963.5000	1529.200	14.45642
1974	1223.500	1517.100	2740.600	14.91402
1975	3207.700	2734.900	5942.600	27.56436
1976	4041.300	3815.000	7856.700	28.78123
1977	5004.600	3819.000	8823.800	27.34197
1978	5200.000	2800.000	8000.000	22.45650
1979	4219.500	3187.000	7406.700	17.41319
1980	10163.40	4805.000	14968.50	30.08200
1981	6567.000	4846.000	11413.70	20.90114
1982	6417.200	4885.700	11923.20	23.58834
1983	4885.700	5278.800	9636.500	17.15657
1984	4100.100	5827.500	9927.600	16.00993
1985	5464.700	7576.200	13041.10	18.43734
1986	8526.800	7696.900	16223.70	23.62147
1987	6372.500	15646.20	22018.70	22.64716
1988	8340.100	19409.40	27749.50	20.94254
1989	15034.10	25994.00	41028.30	19.80388
1990	24048.60	36219.00	60268.20	25.25655
1991	28340.90	38243.50	66584.40	22.23104
1992	39763.30	53126.90	92797.40	19.11740
1993	97079.40	136727.0	191228.9	30.66886
1994	112538.1	85918.90	160893.2	18.95926
1995	121138.3	127629.8	248768.1	24.33130
1996	158678.3	129416.0	288094.6	11.89432
1997	209841.3	146421.0	356262.3	14.19315
1998	237085.8	195174.0	443563.3	18.40428
1999	227005.5	221119.0	448124.5	17.50336
2000	498027.6	449662.4	947690.00	17.22978
2001	239450.9	461608.5	701059.40	16.53641

Sources: *International Financial Statistics*, I.M.F Yearbook, Various Editions
Statistical Bulletin, Central Bank of Nigeria, Various Editions

References

Abizadeh, S., and J. Gray (1985). Wagner's Law: A Pooled Time Series Cross-Section Comparison. *National Tax Journal*, 38: 209-38.

Ahsan, S. M., A. C. Kwan, and B. S. Sahni (1992). Public Expenditure and National Income Causality: Further Evidence on the Role of Omitted Variables. *Southern Economic Journal*, 58 (3): 623-34.

Anoruo, Emmanuel, and Y. Ahmad (2001). Causal Relationship Between Domestic Savings and Economic Growth: Evidence from Seven African Countries. *African Development Review*, 13(2): 238-49.

Ansari, M. I., D. V. Gordon, and C. Akuamoah, (1997). Keynes Versus Wagner: Public Expenditure and National Income for Three African Countries. *Applied Economics*, 29: 543-50.

Banarjee, A., J. J. Dolado, J. W. Galbraith, and D. F. Hendry (1993). *Cointegration, Error Correction and the Econometric Analysis of Non-Stationary Data.* Oxford: Oxford University Press.

Bird, R. M. (1971). Wagner's 'Law' of Expanding State Activity. *Public Finance*, 26:1-26.

Bohl, M.T. (1996). Some International Evidence of Wagner's Law. *Public Finance*, 51(2):185-200.

Chletsos, M., and C. Kollias (1997). Testing Wagner's 'Law' Using Disaggregated Public Expenditure Data in the Case of Greece: 1958-93. *Applied Economics*, 29: 371-77.

Courakis, A. S., F. Moura-Roque, and G. Tridimas, (1993). Public Expenditure Growth in Greece and Portugal: Wagner's Law and Beyond. *Applied Economics*, 25 (1): 125-34.

Demirbas, Safa (1999). *Cointegration Analysis - Causality Testing and Wagner's Law: The Case of Turkey, 1950–1990*. A Paper Presented at the Annual Meeting of the European Public Choice Society, Lisbon.

Dickey, D. A., and W. A. Fuller (1979). Distribution of the Estimators for Autoregressive Time Series with a Unit Root. *Journal of the American Statistical Association*, 74: 427-31.

——— (1981). Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root. *Econometrica*, 49: 1057-72.

Dutt, S. D., and D. Ghosh (1997). An Empirical Examination of the Public Expenditure-Economic Growth Coorelations. *Southwest Oklahoma Economic Review*. 12 (4): 14-26.

Engle, R. F., and C. W. Granger (1987). Co-integration and Error Correction: Representation, Estimation and Testing. *Econometrica*, 55: 251-76.

——— (eds.) (1991). *Long-Run Economic Relationships: Reading in Cointegration.* Oxford: Oxford University Press.

Gavin, Michael (1993). Adjusting to Terms of Trade Shock: Nigeria, 1972-88. In Rudiger Dornbusch (ed.). *Policymaking in the Open Economy: Concepts and Case Studies*

in Economic Performance. EDI series. Oxford: Oxford University Press.

Goffman, I.J. (1968). On the Empirical Testing of Wagner's Law: A Technical Note. *Public Finance*, 23(3): 359-64.

Granger, C.W.J. (1969). Investigating Causal Relations by Econometric Models and Cross Spectra Methods. *Econometrica*, 37(3): 424-38.

——— (1980). Testing for Causality. *Journal of Economic Dynamics and Control*, 2:329-52.

——— (1981). Some Properties of Time Series Data and Their Use in Econometric Model Specification. *Journal of Econometrics*, 16: 121-30.

——— (1988). Some Recent Development in the Concept of Causality. *Journal of Econometrics*, 39(1/2):199-211.

——— (1994). Some Comments on Empirical Investigations Involving Cointegration. *Econometric Review*, 13 (3): 345-50.

Gupta, S. (1967). Public Expenditure and Economic Growth: A Time Series Analysis. *Public Finance*, 22: 423-61.

Henrekson, M. (1993). Wagner's Law: A Spurious Relationship. *Public Finance*, 48(2): 406-15.

Jackson, M. P., M. D. Fethi, and S. Fethi (1999). Cointegration, Causality and Wagner's Law: A Test for Northern Cyprus, 1977–1996. A Paper Presented at the *2nd International Congress on Cyprus Studies*. Cyprus: Eastern Mediterranean University.

Johansen, S. (1988). Statistical Analysis of Cointegration Vectors. *Journal of Economic Dynamics and Control*, 12(2/3): 231-54.

——— (1991). Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregressive Models. *Econometrica*, 59(6): 1551-80.

———, and K. Juselius (1990) Maximum Likelihood Estimation and Inference on Cointegration with Application to the Demand for Money. *Oxford Bulletin of Economics and Statistics*, 52: 169-210.

Khan, A. H. (1990). Wagner's 'Law' and the Developing Economy: A Time Series Evidence from Pakistan. *The Indian Economic Journal*, 38(1): 115-23.

Kul, B. Luintel, and M. Khan (1999). A Quantitative Reassessment of the Finance-Growth Nexus: Evidence from a Multivariate VAR. *Journal of Development Economics*, 60: 381-405.

Kwiatkowski, D., P. Phillips, P. Schmidet, and Y. Shin (1992). Testing the Null Hypothesis of Stationarity Against the Alternative of a Unit Root. *Journal of Econometrics*, 54:159-78.

Lin, C. (1995). More Evidence on Wagner's Law for Mexico. *Public Finance*, 50 (2): 267-77.

Mann, A. J. (1980). Wagner's Law: An Econometric Test for Mexico, 1925-76. *National Tax Journal*, 33: 189-201.

Miller, S.M. (1991). Monetary Dynamics: An Application of Cointegration and EC Modeling. *Journal of Money, Credit and Banking*, 23: 139-54.

Murthy, N. R. V. (1993). Further Evidence of Wagner's Law for Mexico: An Application of Cointegration Analysis. *Public Finance*, 48(1): 92- 96.

Musgrave, R. A. (1969). *Fiscal Systems*. New Haven and London: Yale University Press.

Nagarajan P., and A. Spears (1990). An Econometric Test for a Wagner's Law for Mexico: A Reexamination. *Public Finance*, 45:165-68.

Osterwald-Lenum, M. (1992). A Note with Quantiles of the Asymptotic Distribution of the ML Cointegration Rank Tests Statistics. *Oxford Bulletin of Economic and Statistics*, 54: 461-72.

Oxley, L. (1994). Cointegration, Causality and Wagner's Law: A Test for Britain 1870-1913. *Scottish Journal of Political Economy*, 41(3): 286-93.

Payne, J.E., and B.T. Ewing (1996). International Evidence on Wagner's Hypothesis: A Cointegration Analysis. *Public Finance*, 51(2): 258-74.

Peacock, A. T. (ed.) (1958). *Classics in the Theory of Public Finance.* London: Macmillan.

Peacock, A. T., and J. Wiseman (1961). *The Growth of Public Expenditure in the United Kingdom.* London: Oxford University Press.

——— (1979). Approaches to the Analysis of Government Expenditure Growth. *Public Finance Quarterly*, 7: 3-23.

Pryor, F.L. (1969). *Public Expenditure in Communist and Capitalist Nations*. London: George Allen and Unwin.

Ram, R. (1986). Causality Between Income and Government Expenditure: A Broad International Perspective. *Public Finance,* 41(3): 393-414.

——— (1987). Wagner's Hypothesis in Time-Series and Cross-Section Perspectives: Evidence from 'Real' Data for 115 Countries. *Review of Economics and Statistics*, 69: 194-204.

Sahni, B. S., and B. Singh (1984). On the Causal Directions Between National Income and Government Expenditure in Canada. *Public Finance*, 39(3): 359-93.

Singh, Gulab (1997). Wagner's Law — A Time Series Evidence from The Indian Economy. *The Indian Journal of Economics*, 77(306):349

Singh, B., and B. S. Sahni, (1984). Causality Between Public Expenditure and National Income. *Review of Economics and Statistics*, 66(4): 630-43.

Sinha, D. (1998). Government Expenditures and Economic Growth in Malaysia. *Journal of Economic Development*, 23 (2): 71–80.

Wagner, A. (1883). Three Extracts on Public Finance. In R. A. Musgrave and A. T. Peacock, (eds.) *Classics in the Theory of Public Finance.* London: Macmillan.

Wickens, R.W. (1996). Interpreting Cointegrating Vectors and Common Stochastic Trends. *Journal of Econometrics*, 74: 255-71.

Organisational Structure, Membership Pattern and Status of Hill Resource Management Societies in Haryana Shiwaliks

Swarn Lata Arya*
R. K. Aggarwal**

Abstract

Transferring to grassroots organisations, the responsibility of running the participatory process within their communities is a key requisite for ensuring the sustainability of any participatory and integrated watershed management process. However, successfully transforming this responsibility also greatly depends on the existence of empowering conditions in the institutional environment. Keeping this in view, an attempt has been made in the present article to study the organisational structure, institutional arrangements and performance of Hill Resource Management Societies including the membership pattern, participation of women and disadvantaged sections of the communities in villages situated in the foothills of Shiwaliks in Haryana State. The performance of societies has been judged through various parameters including revenues generated by them and efforts made by societies to improve their resource management capacity in their functioning.

Introduction

A large number of watershed projects have been initiated by the central and state governments, NGOs and bilateral development agencies. The experiences, as of now, are quite varied, ranging from about a dozen successful projects to a large number of non-effective projects with wide variation in technology, cost, subsidy and implementation process (Kerr *et al.* 1998; Shah 2000). However, the central and most important point — formation of village/local institutions in order to regulate the use and management of common pool resources generated as a result of watershed-based development — remains to be achieved.

* Senior Scientist (Economics), Central Soil & Water Conservation Research and Training Institute, Research Centre, Sector 27A, Chandigarh - 160 019 (UT).
E-mail: soilcons@sancharnet.in

** Principal Scientist & Head, Central Soil & Water Conservation Research and Training Institute, Research Centre, Sector 27A, Chandigarh - 160 019 (UT).
E-mail: soilcons@sancharnet.in

The local institution is a critical factor as it plays the role of mediator between the department and its General Body membership. It is through these local institutions or societies that the participation and entitlements of individual members of communities are structured. For it to be able to play its role in a gender and equity sensitive manner, the local institutions should be able to articulate and represent the interests of all user sub-groups of a forest area in the partnership agreement with the Department (Dhar 1990; Sarin 1993). It needs to act as a forum for actual forest users to articulate and negotiate conflicting needs and priorities. Institutional rules, resources and practices together determine how authority and power are distributed among the membership. Changing official rules alone does not lead to actual change unless associated practices are also changed (Poffenburger and Singh 1996; Sarin 1996).

Given this backdrop, the primary objective of the present article is to study the organisational structure, institutional arrangements and performance of Hill Resource Management Societies in villages situated in the foothills of Shiwaliks in Haryana State. This also includes the membership pattern, participation of women and disadvantaged sections of the communities. Wide variations in gender roles among the diverse castes and communities in the Shiwalik belt pose a special challenge involving women into watershed management programmes/ Joint Forest Management programme.

Background

The Hill Resource Management Programme in Shiwalik foothill villages was formulated to achieve three broad objectives: increased productivity, equitable distribution of benefits and effective resource conservation. The catalyst was the construction of earthen dams to plug micro-watersheds and create reservoirs. The supplemental irrigation offered opportunities for intensified cropping patterns and livestock raising. The threat of rapid siltation of new water resource provided an incentive for villagers to keep their livestock off the catchment area in order to maintain vegetative cover and minimise erosion. To manage the new water resource and control grazing, Hill Resource Management Societies (HRMS) were established. Some of the societies were able to develop irrigation distribution systems, gain grass cutting leases from the Forest Department, and generally experienced impressive gains in family income from both agriculture and animal husbandry (Arya and Samra 1994, 1995a). In early project sites, the scientists of Central Soil & Water Conservation Research and Training Centre, Chandigarh (CSWCRTI), Haryana Forest Department administration and Foundation staff and consultants carefully monitored and encouraged village groups to participate in the programme. Though the CSWCRTI played a pioneering role in establishing watershed management institutions through its work in Sukhomajri, Nada and Bunga in the late 1970s and

early 1980s, the Haryana Forest Department became the lead implementing agency in the extension of Sukhomajri concept of social fencing to new villages (Gupta 1990). Over the following years till 1996, the Haryana Forest Department built approximately 102 dams covering 60 villages.

All the villages where watershed development programmes were established picked up the same thread of community management of common property resources but with varying degrees of success (Chopra *et al.* 1990; Arya and Samra 1995b). Often, disparities existed among the communities in terms of physical environment, socio- economic conditions, caste system, access to private property resources and, most important, the dependence on common property resources. Besides, the cultural, ethnic and religious diversity of resource users had implications for the way land and natural resources were managed. Changes in the environment, or proposals to organise, use and exploit it in different ways, often threatened the integrity of a group and its way of life. Various institutions at the local and state level also played their roles in controlling and managing these resources. How communities adapted to all these changes determined their success and even survival.

Given this diversity and variations from situation to situation and changing state policies over time, it became imperative to study the changes in organisational structure and the present state of functioning of various societies in the region.

Data Collection and Methodology

As has already been mentioned, approximately 102 reserviors covering 60 villages were constructed during 1976–96. It was imperative to constitute Hill Resource Management Societies in all the villages prior to the construction of water harvesting reservoir. For the purpose of the present study, 27 villages, representing fifty per cent of the total villages covered under the programme, were surveyed during the first stage of the study to find out the actual number of societies constituted and continuing at present.

It was revealed that HRMS were constituted only in 14 villages. In some of the cases, where only one water- harvesting structure was serving the irrigation purpose of two adjoining villages, one HRMS was formed for both the villages. Out of 14 also, 10 were found to be working successfully and consistently since their inception till the time of the survey. At the final stage, these 10 HRMS were selected for detailed and in-depth study and data were collected during 1997–2000. In-depth interview, informants and observations were used to study the organisational structure, membership pattern as well as their present status.

Each HRMS is supposed to maintain a proceedings register to record all the proceedings of the meetings held periodically by the Society. Besides, all the transactions related to the receipts as well as expenses made by the Society are to

be recorded in the cash books on a day-to-day basis. The officials of the Haryana Forest Department duly audited these records as and when required. The minute books (Proceedings Register of Societies) were analysed according to the frequency of and attendance at meetings, issues discussed and decisions taken and frequency and degree of involvement of staff members from the implementing agencies in the meetings. Cash books of all these societies were very difficult to obtain as President, Cashier and Secretaries went on changing every year after the elections. So, the records pertaining to the receipts and expenditure also kept on passing through various hands. These records were analysed to understand the financial transactions pattern of these societies on various items and over a period of time.

Results and Discussion

Summary of Membership of HRMS

As per the old byelaws of HRMS (vide resolution of 1990), the head of each family, residing permanently in the watershed, was eligible for the general membership of the society if he/she agreed to abide by the rules and byelaws of the society. Every family living in the village, whether it owned any land in the watershed or not, had an equal right to become a member of the society. Admission and subscription fee was decided at the rate of Rs.10 per family by the society and it was a one-time payment. The society maintained a register of members wherein the particulars of all its members were recorded. As per the society bye-laws, every member of the society enjoyed equal rights and responsibilities.

The General Body of society elected by simple majority the members and office-bearers of the "Executive Committee", amongst its own members. The working period of the committee was for one year. The Executive Committee constituted the following:

(i) President
(ii) Vice President (optional), if needed
(iii) Secretary
(iv) Treasurer
(v) Five or more members

The General Body of the society was to have representatives of all sections of the village as members of the Executive Committee. The society did not pay any salary to the members of the Executive Committee (EC). The members of the Committee were also entitled to travel expenses for official work of the society.

The General Body and the Executive Committee had the right to co-opt as members, the officers of different development departments and specialists from outside for technical, legal and official guidance in its work. Such members had no voting rights.

Although it was written in the society's bye-laws initially that efforts should be made to increase the number of women members in the Executive Committee, till the 1990s not even a single woman had been made a member of the EC in almost all the societies. But when JFM policies were introduced in the early 1990s, it was made mandatory that at least two women must be members of the Executive Committee of every HRMS. However, where the women played an equal or greater role than men in either collecting or processing forest produce, their representation in the EC was to be proportionately increased.

Another major step was taken to get maximum attendance of the women in all village meetings. For this, at least one of the two women Village Forest Workers (VFWs) in the JFM support team was to accompany the team for conducting any village meeting. These changes were considered necessary for promoting village women's equal participation as that of men so that their specific problems and priorities received equal consideration and were institutionally recognised as independent members of HRMS with equal entitlements and responsibilities.

The then existing byelaws generally confirmed to the basic structure and functions of the HRMS. These had been promoted under the expanded JFM programme. As per the Government of Haryana, Forest Department Notification No. 3709-Fr-1-98/3318 dated 29.06.98, "Hill Resource Management (HRMS) or Natural Resource Management Society (NRMS) means an autonomous society of villagers registered under the Societies' Act, 1860." The constitution and eligibility of HRMS are as follows:

Constitution and Eligibility of HRMS

Its members, of their own free will and consent, constitute an HRMS. For participation in Haryana Forest Department's Joint Forest Management Programme, the HRMS shall satisfy the following conditions:

1. HRMS may be constituted by a hamlet, village or a group of villages located within or near the forest areas.
2. All adult men and women from all households residing in the above locations and who have usufruct rights in the Management Area (MA) as per the last forest settlement or have traditionally been collecting/using forest produce from there are entitled to become members of HRMS.
3. Each HRMS shall annually elect an Executive Committee in a general body meeting to carry out its tasks. The Executive Committee shall have 7 to 9 members who collect produce from the forest themselves. At least one-third of the total members shall be women.

The general membership pattern of the societies operating in the selected villages is given in Table 1.

Table 1. Summary of Membership of HRMS Operating in Selected Villages

S. No.	Village	No. of Members			Caste-wise Distribution		Land Ownership- wise	
		Male	Female	Total	Higher	Lower	Owning Land	Landless
1.	Sukhomajri	114	11	125	125	—	125	—*
2.	Dhamala	265	27	292	223	69	211	81
3.	Bunga	153	12	165	159	06	159	06
4.	Lohgarh	72	19	91	68	23	95	06
5.	Gobindpur	49	04	53	48	05	53	—*
6.	Masoompur	57	13	70	60	10	65	05
7.	Raina	105	20	125	117	08	125	—*
8.	Khera and Basaula	79	55	134	97	37	99	35
9.	Mirpur	57	09	66	64	02	66	—*
10.	Nada	100	06	106	106	—	106	—*
	Total	1051	176	1227	1067	160	1104	133
	Per cent	86	14	100	87	13	90	10

* These villages do not have any landless families.

Sukhomajri HRMS started initially with 59 families in the village in 1981 and all became members after paying one-time membership fee of Rs.10/-. A family unit was defined as one sharing a common kitchen as this functioned as a decision-making unit. During 1989, the membership increased to 70 and at present, the total membership is 125. Initially, there were only two widows as female members of the society. No provision had been made at that time to give fixed or proportionate representation to female members. The other reason being that agricultural land in all these villages was exclusively in the name of male members. Later on, some of the females and landless families also became members to get the benefit of fodder grass from the forest. There was no landless family in the case of Sukhomajri village and hence membership of this category was nil. There were five families that belonged to Rajput Jat category, and the rest were Gujjars. They all were members of the society.

The Dhamala's society was registered in 1983. Initially, Dhamala society had a membership of 70, which dropped to 25 eventually within a year. This was because as per the society byelaws, all the households were to get equal share of water irrespective of possession of agricultural land but it never happened in Dhamala. Only 30 to 35 Jat families at that time had agricultural land, and the rest of the families were landless and belonged to *Brahmin, Harijan* and *Balmiki* castes. When landless did not get their share of harvested rainwater, they withdrew their

membership from the society. However, when Dhamala's society was reorganised by Joint Forest Management Team in 1993–94 after demarcation of forest area between Sukhomajri and Dhamala, almost all the families again became members. Now, there are 292 members in the society.

Raina's society, which was constituted in 1987, had all *Muslim gujjars* except eight members of *Harijan* category. The Masoompur society, which had 57 members, initially in 1987, had no female member at that time. Khera society was reconstituted by JFM team in 1995 and had the maximum female members. In the rest of the societies, the membership remained more or less constant throughout the period except in Nada. Initially, when Nada HRMS was formed in 1981, all the 91 families residing in three hamlets in the village became members. A separate society for 17 *Harijan* families was formed as they were residing in a separate hamlet. But, in due course of time, these societies stopped functioning due to various reasons including non-availability of supplemental irrigation water from the dam. The society was reorganized in 1993–94 by JFM team with the induction of 106 members. The *Harijan* families did not become members, as they were not getting water and grass from the forest.

In all these societies, no female was a general member till 1991–92. Only after 1992, at the instance of JFM team members, the females were included in the membership list of HRMS.

Even after the implementation of JFM notifications (first in 1990 and revised in 1998), it was observed that in all the ten societies, the total percentage of female members was only fourteen, which very clearly indicated low participation of women in decision-making in local institutions.

As per the initial HRMS rules, the household was the basic unit of the society's General Body membership. This earlier order prescribed the eligibility of only one 'representative' per household as a General Body member. This single rule automatically denied membership to a majority of the women and also marginalized many men, often those most acutely dependent on forests, the right to participate in Joint Forest Management on their own behalf. It prevented them from gaining an institutional identity and, therefore, direct access to all tangible and intangible resources and benefits available through the new 'Community' institutions being promoted. This was because the one representative was always a man, perceived to be 'head' of the household except in the case of all-women households or of widows without adult sons.

As per the new notification, "All adult men and women from all households residing in the above location and who have usufruct rights in the Management Area (MA) as per last forest settlement or have traditionally been collecting/using forest produce from there are entitled to become members of HRMS".

Translation of Membership Rules into Practice

Although reaching out to disadvantageous and poor women was facilitated by opening membership of HRMS to all adult women and men young and old, irrespective of their status within or relationship to a household, all eligible individuals would not necessarily choose to participate actively in HRMS activities. As already mentioned, changing institutional rules does not necessarily lead to changes in practices. Either such rules resulted only in women's names being added to the membership lists or even that did not take place.

An analysis of information from a random sample of 10 HRMS, including 576 women (adults), during 1999 has been shown in Table 2. Although the amended membership rules added membership during the last two years, it was found that most of the village men and women were still unaware of the retrospective amendment to the JFM orders. It showed that simply making and changing rules on paper did not automatically result in their being put into practice. For ensuring their translation into practice, those responsible for their implementation, as well as the women and men expected to benefit from them, must be informed and made aware of the rules.

Table 2: Awareness of Increased Membership among HRMS in Haryana Shiwaliks

Awareness	Among Men		Among Women	
	Number	%	Number	%
Not Aware	331	51	478	83
Have Heard about It But the Concept is Not Clear	175	27	52	9
Aware	144	22	46	8
Total	650	100	576	100

Women's Access to Executive Committees (EC) and as Office-Bearers

Both the eligibility criteria for EC membership and the process by which it is constituted determine the extent of the EC's representativeness of the diverse interest groups within the concerned community, and consequently, the societies' sensitivity to gender and equity concerns.

Membership of the EC gives the members a sense of participation in higher level decision-making and being in a leadership role, assumes a higher social status within the community which enables him/her access to information and decision-making experience, greater exposure to outsiders and an opportunity to negotiate and lobby for the interests of the sub-groups or section of the society he or she represents.

Due to political leadership traditionally being a male domain, increasing women's presence and participation at these levels requires changes in mindset,

attitudes and traditional views about women's capabilities. It also requires increasing self-confidence among the women to take decisions in accordance with their own priorities.

Although the provision for women's representation on the ECs of HRMS in Haryana State, the rules of JFM specify that at least one-third of the total members of EC shall be women, but due to their being in a small minority, combined with the strong cultural inhibitions, women have very less say in decision-making and often are not even invited to the EC meetings. In many cases, they remain unaware that they have been made EC members as the men put their names on paper to complete the formality.

In the HRMS of Dhamala , although higher caste land owner *Jats* comprised only one-third of the households, the EC of HRMS had seven *jat* men with only two lower caste women (who were seldom invited to EC meetings) 'representing' the lower caste, primarily landless, and the majority acutely dependent on forests for fodder and fuel.

The Raina HRMS included two *Muslim* women belonging to *Gujjar* caste in 1995 in EC but their names were dropped after two years. When inquired about it from EC male members, we were told that women did not attend the meetings, so their names were dropped. But women just explained the opposite that they were not allowed by men to attend the meetings.

Meetings Held and Records of Society

One of the indicators of the successful functioning of the societies is the number of meetings held in a year and the proceedings recorded and proper records of income and expenditure statement.

As per the society by-laws it is also written that "the Executive Committee shall convene the annual meeting of the General Body within one month of every financial year closing. All members of the General Body shall be informed of the meeting a week in advance".

The following items constitute the agenda of the meeting:

a. To consider and approve the annual report on activities and audited report of its income and expenditure.
b. To consider, discuss and approve the annual draft budget and programme of the society for the coming year.
c. Election of new Executive Committee
d. To consider any other matter with the approval of the President of the committee.
e. To get approval for work for which the estimated expenditure is more than Rs. 200/-.

The proceedings of the meeting of the General Body shall be valid only if at least one-third of the current members are present. The meeting of the Executive Committee shall be valid if at least five members of the committee are present.

Table 3 contains the data on number of meetings held and proceedings recorded thereof since the year of inception of respective societies till 1999–2000.

Table 3: Details of Meetings Held by Various HRMSs

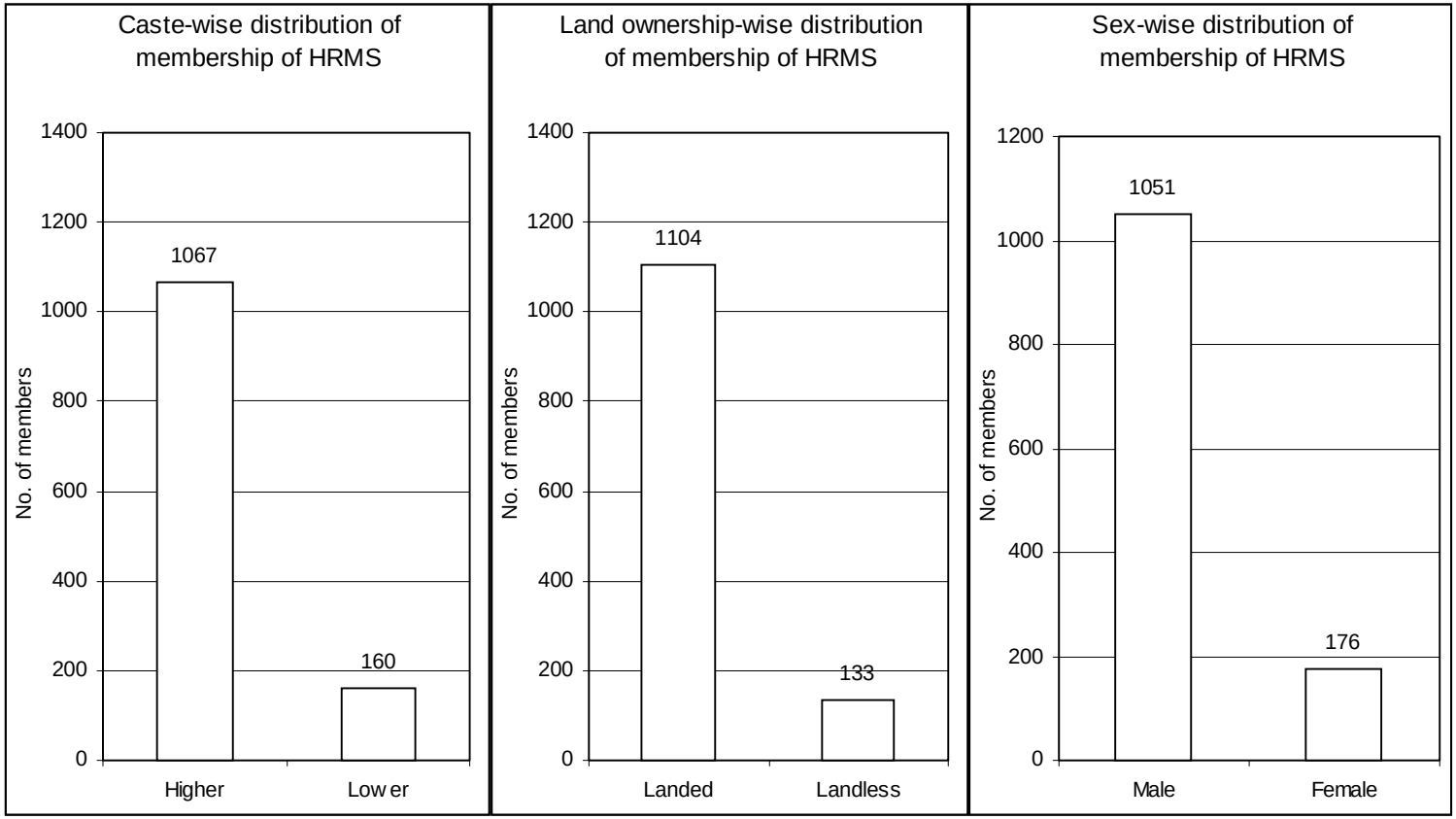
Name of HRMS	No. of Meetings Held	Period	Attended by		Proper Records Maintained	Av. No. of Meetings Held per Annum
			Male	Female		
Sukhomajri	42	1992-99	936 (22)	97 (2)	Partially	6
Dhamala	28	1993-99	518 (18)	40 (1.4)	Partially	5
Bunga	712	1985-99	8494 (12)	Nil	Yes	51
Lohgarh	131	1984-99	1834 (14)	102 (0.8)	Yes	9
Gobindpur & Mandappa	35	1990-99	496 (15)	22 (0.6)	Partially	4
Masoompur	75	1987-99	1220 (16)	Nil	Yes	6
Raina	64	1993-99	1302 (24)	15 (0.3)	Yes	11
Mirpur	66	1993-99	905 (14)	114 (1.7)	Yes	11
Khera & Basaula	45	1995-99	992 (22)	89 (2.0)	Yes	11
Nada	12	1994-99	196 (16)	Nil	Partially	2

Note: Figures in parentheses indicate average participation of males and females in one meeting.

The annual average number of meetings varied from as low as 4 to as high as 51 per HRMS. In the case of four societies, proper records were not maintained. The percentage of adequate and inadequate maintenance of records was 75 and 25, respectively. Women attended meetings only in the case of 7 HRMS but their attendance was very thin.

Functioning of HRMS has never been smooth even in pilot project villages like Sukhomajri and Dhamala . Initially, there was one HRMS for both the villages as they were sharing the adjoining forest area. Sukhomajri HRMS was responsible for

Fig.1: Membership Composition of Hill Resource Management Societies



taking the lease for *bhabbar (Eulaliopsis binata)* grass from the forest department and for reselling it to the contractor. The profit was being shared by both Sukhomajri and Dhamala villages. The elections for the Executive Committee were held every year but neither the meetings were held properly nor the proper records of income and expenditure maintained. These were never shown to outsiders either. Dhamala's people alleged that they were not called in the meetings at the time of auction of *bhabbar* grass to contractors. They even went to the extent of alleging that the Executive Committee members of Sukhomajri HRMS manipulated financial transactions. Whenever the Executive Committee members changed after elections, records were not handed over to the succeeding EC members. After 1993–94 when JFM team started re-organising the whole set-up of these societies and started auditing the old records, these HRMS became alert and started maintaining accounts. Similarly, in the case of Dhamala HRMS, which although, was constituted in 1982, the proper records were available only from 1993 onwards.

In the case of Raina's HRMS, the proper records are being maintained and proceedings recorded since its inception in 1987 but the records are lying with the Income Tax Department for not paying income tax on the lease amounts. The Raina HRMS has filed a case in the High Court against the rule of the payment of income tax at the rate of 15 per cent on the lease amount of *bhabbar* and fodder grasses.

Women's Low Presence in the Meetings — Reasons and Constraints

As is clear from Table 3 and Figure 1, out of 10 HRMS selected, women members never attended meetings in the case of three HRMS. In the remaining seven also the participation of women members was very low. On an average, 6 to 22 male members participated in a meeting whereas the female member participation varied from 0.3 to 2 per meeting. The following were the common constraints preventing women from attending village meetings:

1. Often women were not specifically intimated about or invited to village meetings. Traditionally only men attended, and the women did not come even if they were aware about them because of social taboos.
2. Poor rural women often worked for 12 to 18 hours a day due to their multiple responsibilities. The timings of the village meetings seldom took their convenience into consideration.
3. Distance was often a major constraint for women.
4. Many women feared ridicule for violating a major cultural norm by attending meetings with men. Married women from conservative communities might not attend unless their husbands approved of their doing so. Gender sensitisation of village men to facilitate women's' participation in community affairs was equally critical.
5. Lack of information about JFM might be a reason for the non-participation of women in the meetings. Alternatively, poor women might be aware that social

pressure would be enforced on them to stop selling firewood when they had no other means of feeding their children. They might be avoiding for this reason.

Even when women were present in the meetings, they tended to be ignored with many facilitators neither looking at them, nor making any effort to solicit their views. In this conflict, it should be noted that women should be treated at least as equal partners if not more important. Creating such a space and actually listening to women will not only empower them but will also articulate different perspectives of livelihood. Gender balancing strategies of a service-providing agency can include:

- Each multidisciplinary team of a service provider should include at least one female member.
- Design documentation formats with balanced recording of views of males and females. Opinion of all players concerned with the management of natural resources should form the basis of planning.

Success in increasing women's presence numerically in General Body and Executive Body meetings of HRMSs has the danger of creating complacency about the meaningful participation of women. However, the presence of even a large number of women does not necessarily mean that the poorest and most acutely forest- dependent ones are among them. In fact, such women are more likely to be absent compared with better-off women either because their struggle for survival leaves them no time to attend village meetings or because power dynamics within the village prevent them from coming to such forum.

The only means of ensuring the participation of such voiceless groups is to first identify who they are, develop facilitating strategies to promote their participation and then monitor their real participation in day-to-day practice.

Performance of Societies

The performance of societies can be judged by various parameters mentioned below:

(1) Number of meetings held in a year,
(2) Representation of backward castes, weaker sections and of women in society
(3) Presence of women, landless and backward caste people in meetings held by the society.
(4) Revenue generated by the society from various sources.
(5) Repair and maintenance of CPRs generated as a result of the project.

The first three parameters have already been discussed in detail in the previous section of the article, hence, the remaining two have been dealt with in the following part including the various efforts made by societies to improve their resource management capacity in their functioning.

Details of Income and Expenditure of HRMS in Selected Villages

An account of total income generated by the ten societies over a period of time and total investment/expenditure made by these societies during the same period has been given in Table 4. Of the ten societies, Bunga is the only one where part of the hilly catchment area does not belong to the Haryana Forest Department. The area belongs to the community, so the society does not have to pay any lease amount to the Haryana Forest Department. In the rest of the cases, the forest area has been leased out to societies by the forest department. The total income from ten societies has been Rs. 73.25 lakhs so far. Of the ten societies, water-harvesting structures are functioning only in six cases whereas in the rest of the cases, dams have become non-functional.

Table 4: Income and Expenditure (in Rs.) Details of Selected Hill Resource Management Societies (1983–84 to 2001–02)

Sl.No	HRMS	Period	Income	Expenditure/ Investment	Remarks
1	Sukhomajri	1986–2002	13,75,995	11,30,284	Water harvesting
2	Dhamala	1989–2002	7,81,277	5,23,152	Water harvesting
3	Bunga	1984–2002	12,91,803	12,36,042	Water harvesting
4	Lohgarh	1990–2002	16,13,682	12,84,478	Water harvesting
5	Gobindpur & Mandappa	1988–2002	2,40,007	1,36,797	Water harvesting
6	Masoompur	1988–2002	6,18,370	4,41,819	Bhabbar grass contract only
7	Raina	1988–2002	6,93,240	5,54,403	-do-
8	Khera & Basaula	1995–2002	4,82,275	3,91,184	Bhabbar and fodder grass contract only
9	Mirpur	1991–2002	2,12,704	1,73,855	-do-
10	Nada	1994–2002	1,38,806	82,032	Water harvesting
	Total		73,25,059	59,54,040	

Sources of Revenue to HRMS

The income derived from various sources by ten societies has been given in Table 5. There are three major sources of income to societies: (i) income from the sale of *bhabbar* and fodder grasses; (ii) income from irrigation charges; and (iii) income from leasing out the reservoir for fish culture. Then there is a one-time membership fee of Rs.10/- per household.

Table 5: Details of Income (in Rs.) of Selected Hill Resource Management Societies from Various Sources till 2001–02

Sl.	Village	Income from the sale of *bhabbar*	Income from fodder grass	Water Charges	Fish Culture	Membership Fee	Miscella-neous	Total
1	Sukhomajri	9,24,615	2,45,278	34,482	50,000	1,520	—	1375995
2	Dhamala	6,17,105	67,273	49,779	44,200	2,920	—	781277
3	Bunga	9,25,532	—	2,71,814	88,494	1,050	4,313*	12,91,803
4	Lohgarh	14,73,300	89,084	9,772	25,640	15,886	—	16,13,682
5	Gobindpur & Mandappa	1,74,200	—	60,227	5,000	580	—	2,40,007
6	Masoompur	6,10,219	—	2,651	4,800	700	—	6,18,370
7	Raina	6,75,175	—	3,815	10,000	1,250	—	6,93,240
8	Khera-Basaula	3,50,400	1,24,227	—	—	7,648	—	4,82,275
9	Mirpur	1,99,185	—	4,880	—	600	8,039**	2,12,704
10	Nada	29,000	—	48,746	60,000	1,060	—	1,38,806
	Total	59,78,731	5,25,862	4,86,166	2,88,134	33,814	12,352	73,25,059
	Percentage	81.62	7.18	6.64	3.93	0.46	0.17	100.00

It can be observed from the Table that 82 per cent of the total income was generated from the sale of *bhabbar* grass only. The maximum income accrued to Lohgarh Society, followed by Bunga. Income from irrigation charges was maximum to Bunga society. There are two earthen dams in Bunga village, which are providing supplemental irrigation to about 276 ha of agricultural land of all the village farming families. The water from dam No.1 is consistently being used for irrigation since its inception in 1984 except for the year 1987 when there was no water in the dam due to severe drought. Dam No.2 started providing irrigation only from 1996 onwards. The least income from irrigation charges accrued to Masoompur, Raina and Mirpur societies as the dam provided water only for 2 to 3 years initially. The investment and expenditure made by the societies have been presented in Table 6. Till the end of year 2000, a total of Rs.59.54 lakhs has been spent by ten societies for various purposes indicated in the table, out of which 41 per cent was paid to Haryana Forest Department as lease money, for both *bhabbar* and fodder grasses, and about 32 per cent was incurred on development activities like construction of school building, boundary wall of schools, construction of *dharamshala* (common place), community centre, temple, mosque, tubewells, etc. Some of the common assets created out of income generated in these villages are exclusively attributable to the efforts put in by the village people in a 'participatory' way. The Masoompur society, for instance, spent Rs.65,000/- for the installation of a tubewell for drinking water purpose in the

Table 6: Details of investment / expenditure (Rs) by Hill Resource Management Societies on various items till 2001-02

Sl. No.	Village	Lease Amount Paid to HFD* for *Bhabbar*	Lease Amount Paid for Fodder Grasses	Repair and Maintenance of Dam & Pipeline	Develop-ment Works	Travelling & Stationery Expenses	Salary to Watchman	Miscella-neous	Total Expenditure
1	Sukhomajri	8,32,242	58,498	50,545	82,029	67,370	39,600	—	11,30,284
2	Dhamala	1,90,348	43,998	55,600	1,89,486	16,125	27,595	—	5,23,152
3	Bunga	—	—	2,79,251	6,12,065	1,05,422	1,38,939	1,00,365	12,36,042
4	Lohgarh	7,58,533	67,690	1,80,837	2,26,525	25,893	25,000	—	12,84,478
5	Gobindpur & Mandappa	29,228	—	51,825	—	24,972	21,777	8,995	1,36,797
6	Masoompur	93,321	—	48,671	2,59,641	21,366	18,820	—	4,41,819
7	Raina	1,12,890	—	26,300	3,18,497	58,516	38,200	—	5,54,403
8	Khera & Basaula	1,24,757	73,656	—	1,21,198	20,173	51,400	—	3,91,184
9	Mirpur	25,108	—	68,701	67,107	3,939	9,000	—	1,73,855
10	Nada	31,072	—	49,391	—	1,569	—	—	82,032
	Total	21,97,499	2,43,842	8,11,121	18,76,548	3,45,345	3,70,331	1,09,360	59,54,046
	Percentage	36.90	4.10	13.62	31.52	5.80	6.21	1.84	100.00

HFD* = Haryana Forest Department

village exclusively out of society funds. The Raina society spent more than 2.5 lakhs for the construction of a mosque and community centre in the village out of society funds only.

Then, there are certain common assets created or inherited in these villages, which are partly attributable to the general development investments and partly due to the efforts put in by the villagers. For example, the society in Sukhomajri contributed Rs. 10,000 as 25 per cent share of the total cost of the school building in 1986–87. The Bunga HRMS spent Rs. 22,000 from society funds as matching grant for the construction of Veterinary Hospital in the village. The State Government contributed the remaining 50 per cent of the amount. Bunga society also purchased land for installing a government tubewell for drinking water purpose in the village.

Levels and Kinds of Participatory Development

While participatory institutions emerged in the above-mentioned ten villages, their role, kinds of participation, and achievements are matters of empirical analysis, but a distinction needs to be made between the creation of common property assets (in the form of irrigation tanks, protection of forest land, schools, temples, *dharamshalas* and village roads, etc.) and their maintenance and developmental use. In all these cases, combined investment as well as participation by both the government and the society is involved. Accrual of annual benefits and prices to be paid for them by the people are some of the indices of the working of these societies in association with government agencies. Wherever relevant, employment and savings generated by the existence of HRMS are also to be accounted for.

A close analysis of the data given in the tables regarding income and expenditure patterns of ten societies illustrates different levels of working of the institutions of "society". Generally, it has been noticed that investment made by the government or other outside agencies in the creation of irrigation tanks and plantation on forest and common land initiated the process. In all these common property asset creating activities, involvement of the village people by way of manpower supply was an important complementary input. Formation of the society was the next step, mainly to resolve the dispute over the distribution of irrigation water. The water harvesting reservoirs built by the state government were handed over to the societies in all the villages for evolving their own rules and mechanism of sharing water.

Subsequently, the functioning of societies enlarged by assuming investment activities for maintaining flows of goods and services from such stocks of common property resources. Starting with routine maintenance of irrigation structures, the societies in these villages invested on additional water connections, purchase of pumps, de-silting main pipelines, repair of outlets and spillways, etc.

Table 6 clearly shows that Lohgarh and Bunga HRMS spent as much as Rs. 1.8 and 2.8 lakhs respectively, on the repair and maintenance of dams and pipelines. In the cases of Mirpur, Raina and Masoompur, the participation of people and their efforts were commendable mainly because the structures in these three villages failed miserably in the beginning itself. The society members made every possible effort to make the structures functional, but did not succeed due to various reasons. In the case of Mirpur village, the choked main pipeline and outlets were cleared so that water could be used for cattle purposes. The User's groups in these villages even purchased the distribution pipelines from their resources and got them fitted into their fields. Unfortunately, water could not be stored in the reservoirs due to one or the other fault; therefore, the farmers' efforts went unrewarded.

The next stage in this process of 'societal' development was expanding the scope of managing common property resources, partly substituting for the government and partly acting as a complementary agent. They obtained contracts for fodder and *bhabbar* grass from Haryana Forest Department as well as ensured stall-feeding. It may be noted that this extension was possible for only such activities that were of interest to the majority. Another important stage in the development of 'society' came when it invested in the creation of community assets. For instance, the Bunga society invested in veterinary hospital, school, *dharmshala* and village roads over the years.

The veterinary hospital and school were joint ventures, with the government and society contributing fifty per cent each of the total outlay. This was an example of participation between the society and the government in the same asset-building activity. The construction of road and *dharamshala* was an example of society substituting for the government. Similar was the example of installation of tubewell for drinking water purpose in Masoompur and Khera exclusively out of society funds, without even involving government. In order to extend their activities further, it became imperative for the societies to participate in such productive activities where management could only be in the hands of a few individuals. This can be illustrated by the cases of fish rearing. It is found that when one individual is managing the activity, evolving a working agreement on the division of value added between him and 'society' becomes difficult. Lack of such an agreement later becomes a constraint on the extension of the sphere of the society's activities.

Some of these societies went one step further and spent out of society's funds for the welfare of individuals and needy persons in the villages. For example, Lohgarh society contributed a sum of Rs.5,500 towards the marriage of a poor girl in the village. Likewise, Sukhomajri society exempted the widows and landless from paying *'dati'* charges for fodder grass from the forest.

The HRMS have also been instrumental in providing casual employment to rural youths. All the societies have employed one person for distribution of

water, keeping records and collection of water charges. His duties also include protection of forest area from fire, theft and illicit grazing. The Bunga HRMS has so far spent Rs.1,38,939 on providing casual employment to village youths. Whenever pipelines are to be repaired or the height of inlet pipe is to be raised and de-siltation is to be done, the Bunga HRMS has always taken the help of local youths. In this way, the society has created employment equivalent to 6,950 man-days till 2002 since its inception. Similar was the case with Lohgarh society.

At this stage it would be worthwhile mentioning about the role of societies in the management of private property resources. By now, there is evidence from several villages about the people having opted for social forestry on private lands out of society funds. For example, Lohgarh, Raina and Bunga societies encouraged the plantations on farm bunds and construction of lined channels for bringing water to agricultural fields of the farmers from *Kuhls* (seasonal river). Although the society has no control over such resources and produce, the limited role as a promoter in individual's economic activities is an added facet of the society.

The development of societies as participatory institutions was never free from constraints arising out of the specific nature of the activities it undertook. This may be illustrated with the help of examples drawn from these villages. Consider the case of irrigation water. In the very early stage, distribution of irrigation water itself gave rise to disputes. Intervention by outside agencies played a catalytic role in resolving the disputes. For instance, equal water rights norms were established among all the members of societies as per the society byelaws. This never came into practice in any of the villages where water-harvesting reservoirs existed and exist till date. Even now, one of the main criticisms against the 'societies' in all the villages is that it has done good only to the land and cattle owners by way of providing assured water and fodder supply. For example, in Bunga, there are 20 landless families and all are *Harijans* (Scheduled Caste). They say that HRMS only benefited the landowners by way of providing assured water and fodder supply. They are of the view that landowners can now maintain good quality and improve the breed of cattle, as fodder (both dry and green) is abundantly available from the agricultural fields as well as from the forest. Before the emergence of the society, even the landless had free access to forest areas to graze their goats and cows. They have been deprived of this facility after the society has imposed *social fencing*. The landless families are now forced to sell their cattle after the constitution of HRMS and implementation of its byelaws. This is very much evident from the fact that landless families have only 1.7 standard livestock units per household as against 17 units per household with farming families in Bunga village. They do not have access to irrigation water nor have the water selling rights ever been practised in the village. Of course, both male and female in landless families have benefited indirectly by way of getting greater employment opportunities in the agricultural fields of farmers within village itself by working as hired labourers in their fields.

The case of fishing in the irrigation tank is also worth discussing. In the very beginning, the society of Sukhomajri wanted to promote fishing. But a dispute arose over the sharing of the value added product between the individuals who managed the pisciculture and the society. Having seen this dispute in Sukhomajri village, Dhamala and other societies gave the fishing contract to an outside agency, on lease basis right from the start. Finally, Sukhomajri society also decided in favour of the market option by way of giving the contract to an outsider.

The same thing happened in the case of *bhabbar* grass. As already mentioned, the plentiful availability of fodder and *bhabbar* grass (leases given to HRMS) was due to *social fencing* and good natural regeneration in the forest area near Sukhomajri. The villagers under the leadership of Mr. P.R. Mishra, persuaded the department that the benefit of increase in the production of grasses should go to the villagers. The Haryana Forest Department could have never experienced the increase in production and thereby income from it if the local people had not been involved.

The average of the previous three years' price fetched in open auction for both fodder grass and *bhabbar* was accepted as a fair estimate of the revenue of the government. Originally, it was the idea that *bhabbar* shall be processed into rope by setting up village industries and thus securing additional employment and income to the poor and landless villagers. The social fund thus generated shall be ploughed back into the hills to set into motion an unending cycle of growth and prosperity.

Initially, a few societies such as Sukhomajri, Nada, Masoompur and Gobindpur started making ropes either by hand or with rope-making machines. Masoompur and Nada societies continued this activity for 2–3 years. But ultimately they had to discontinue it for lack of sufficient finance, management and marketing.

The Raina, Lohgarh, Jattanmajri, Dhamala and Mirpur societies started reselling the *bhabbar* grass to private contractors after taking lease from the Haryana Forest Department because the societies themselves could not manage the system. So, unlike the irrigation dispute, the societies could not find a catalyst to resolve the constraints in the fishery and *bhabbar* grass cases.

Thus, the different village scenario showed varying levels of development based on the availability of private and common property resources and their management. Watershed management institutions to manage common property resources initiated almost exclusively in all the villages as Water Users' Associations also showed varying degrees of success. This variation, of course, is related both to the nature of the village economies in which they operate and the kind of activities or area of operations that they happen to work in. It also depended upon the needs and requirements of the villagers as well as resources available with them.

Glossary

Bhabbar: The most important fibre grass in Shiwalik foothill region, meets the long fibre pulp needs for paper manufacturing and is the primary raw material for rope-making industries.

Gujjars: A pastoral caste, a nomadic tribe subsisting on cattle rearing**,** which has now taken to farming**.**

Harijan, Balmiki: People belonging to lower castes.

Jat: A caste of cultivators in North India.

Shiwaliks: In Haryana, the Shiwalik hills cover approximately 68,000 ha. of area along the northern border of the State. These Shiwalik ranges are made of barely coherent sand rock with occasional clays, granite and conglomerates, an ideal formation for gullying. The hills are about 500 to 1,000 metres in height and end in a picturesque undulating mountainous tract. A large number of rainy season torrents flow down the slopes of Shiwaliks and deposit a lot of gravel, boulders, pebbles and sand in the riverbeds and agricultural fields below.

Dati: One Dati means one and two Dati means two members of a household can go to the forest daily to fetch a head-load of grass for the specified period and pay the contractor or the society a fixed amount of fee.

Social Fencing: Self-restraint by the villagers themselves from cattle grazing and illicit felling/cutting of vegetation in the forest area following rules and regulations framed by the local communities constituted for the protection, management and distribution of CPRs.

Kuhls: Seasonal irrigational water channels built and maintained by the communities to harness the water of perennial hill streams.

Dharamshala: A resting place for common man. Also utilised for celebrating marriage ceremonies in the village.

References

Arya, Swarn Lata, and J. S. Samra (1994). Watershed Management Changes in Animal Population Structure, Income and Cattle Migration. Shiwalik India. *AMBIO*, 23(7): 446-50.

——— (1995a). Participatory Process and Watershed Management – A Study of the Shiwalik Foothill Villages in Northern India. *Asia-Pacific Journal of Rural Development*. 5(2): 35-57.

——— (1995b). Socio-Economic Implications and Participatory Appraisal of Integrated Watershed Management Project at Bunga. *Technical Bulletin No. T-27/C-6*. Chandigarh: Central Soil & Water Conservation Research and Training Institute, Research Centre.

Chopra, K, G. K. Kadekodi, and M. N. Murthy (1990). *Participatory Development, People and Common Property Resources*. New Delhi: Sage Publications.

Dhar, S. K. (1990), Early Experiences with Hill Resource Management Societies as Joint Forest Managers in Participatory Forest Management in the Shiwalik Hills: Experiences of Haryana Forest Department. *Ford Foundation Working Paper No. 5*. New Delhi: Ford Foundation.

Gupta, J. R. (1990). Expanding Department Capacity to Work with Forest Communities in Participatory Forest Management in the Shiwalik Hills: Experiences of the Haryana Forest Department. *Ford Foundation Working Paper No. 5*. New Delhi: Ford Foundation.

Haryana Forest Department (n.d.). *List of Dams Built in Morni and Ambala Division, Pinjore*. Chandigarh: Haryana Forest Department. Mimeo.

Kerr, John, Ganesh Pangara, Vasudha L. Pongare, and P.J. George (1998). The Role of Watershed Projects in Developing Rainfed Agriculture in the Indian Semi-Arid Tropics. *ICAR World Bank Research Project*. New Delhi: The World Bank.

Malik, Prem Singh (1971). *Third Working Plan for the Forests of Pinjore Range, Ambala Forest Division, 1965-66 to 1977-80*. Chandigarh: Haryana Forest Department.

Poffenberger, M., and Chhatrapati Singh (1996). Communities and State: Re- establishing the Balance in Indian Forest Policy. In M. Poffenberger and Mcgean (eds.). *Village Voices, People Choices*. New Delhi: Oxford University Press.

Sarin, M. (1993). From Conflict to Collaboration: Local Institutions in Joint Forest Management. *JFM Working Paper No. 14*. New Delhi: National Support Group for Joint Forest Management, SPWD.

——— (1996). *Joint Forest Management: The Haryana Experience*. Ahmedabad: Centre for Environment Education.

Shah, Amita (2000). Watershed Programmes—A Long Way to Go. *Economic and Political Weekly*, 35(35 & 36): 3,155-64.

Society for Promotion of Wastelands Development (SPWD) (1992a). *Joint Forest Management Regulations Update*. New Delhi: SPWD.

——— (1992b). Joint Forest Management: Concept and Opportunities. *Proceedings of the National Workshop held at Surajkund in August*. New Delhi: SPWD.

——— (1998). *Who is Gaining? Who is Losing? Gender and Equity Concerns in Joint Forest Management*. New Delhi: SPWD.

School Participation and Child Labour: A Recent Survey of Rural Households in North Bengal

Sudip Chakraborty *

Abstract

Poverty and adult illiteracy are cited frequently as causal factors behind child labour and schooling deprivation. However, the impact of parental literacy has been found to be more consistent than that of poverty. Still, poverty encourages child labour and discourages school participation of children. Incidence of 'nowhere' children is substantially determined by household's relative economic position. Parental educational attainments have largely determined their children's status relating to school and labour force. Educational deprivation of rural children is quite pervasive among illiterate parents. The survey also finds positive effect of village infrastructure, mainly schooling endowments on reducing child labour and on increasing school attendance The study, therefore, puts emphasis on adult literacy programmes, establishment of quality schools and anti-poverty programmes targeted for child labour families.

Introduction

It has been found that 140 million children (23 per cent) in developing countries within the age group of 6 to 11 years do not go to school (UNICEF 1997). An alarming portion of the remaining 77 per cent drop out before they have completed schooling. Child labour on the global scale is increasing over the years keeping pace with the increase in the number of children out of school. Until very recently, child labour estimates were limited to children in full-time employment within the age bracket of 10 to 14 years. ILO, in 1996, revised its estimate from 73 million to 250 million admitting that its earlier figure was gross under-estimation. This redefined estimate included children between 5 to 14 years of age and the child labour included the invisible work in the informal sector. The study of the problem of child labour is deeply intertwined with the understanding of the role of education in its eradication. It has been established that a serious lack of educational opportunities have largely contributed to the rise in child labour, especially in the developing world. This opportunity means a delivery system of education, which ensures quality, relevance and costfree schooling, both direct and indirect.

* Reader in Economics, Ananda Chandra College, P.O. &, Dist. – Jalpaiguri, West Bengal.
E-mail: sudip294@yahoo.com

There are a number of international agreements and policy declarations on child labour. Article 32 of the Convention on the Rights of the Child (CRC) adopted in 1989 guarantees the right to be protected from economic exploitations and from performing any work that is likely to be hazardous or to interfere with child's education or to be harmful to the child's health or physical, mental, spiritual, moral or social development. Article 28 of the same convention guarantees the child rights to compulsory and free primary education. The world conference on education for all held in Thailand during 1990 again reaffirmed the right to education as fundamental right of the child. Indian constitution promises free and compulsory education to all children up to the age of 14 years (article 45). Supreme Court has recently clarified that right to education is a fundamental right. It is a pity that despite all these international conventions and constitutional promise that 45 per cent of the Indian children did not go to school and a majority of them i.e., 52 per cent were girls (MHRD 1998). The most disturbing fact was that almost 48 per cent of the children dropped out from primary schooling and 65 per cent dropped out from the elementary level of learning, that is, from class I to class VIII (Planning Commission 1993). The immediate outcome of this crisis was the incidence of child labour in a massive proportion. The government of India put the figure at 17 million, of which 2 million were engaged in hazardous occupation (Ministry of Labour 1997). The independent estimate ranges from 44 million (Weiner 1996) to 100 million (Jain 1994). The Government of India admitted, in 1990, an estimated 74 million children between 5-14 years age group were non-school going and this figure included 17 million child labour. Thus, by the Government's own estimate, 57 million children were neither in school nor in work. They were 'no where' children (Chaudhary 1998). A majority of this category of children were girls in the rural area. Problem arises in identifying the status of these 'missing' children. Some scholars referred to this category as 'idle' children. On the other hand, some writers (Sinha 2000) opined that 'the concept of ' an 'idle' child simply did not exist, particularly in the Indian context. The child starts supplementing family labour, performing variety of activities that facilitate adult members to undertake wage work. Therefore, as per this extreme argument, children out of school are child labour, not always on the labour market. On the other hand, there is a strong argument to distinguish between 'child work' and 'child labour'. Any work activity besides leisure, play and learning undertaken by the child is 'child work' which does not constitute selling of labour power and not exposed to outside exploitation. Lieten (2000) makes a distinction between *balkam* (child work) and *balamajduri* (child labour). Child work should be used as the generic term, referring to any type of work being done in any mode of employment relationship. The concept of labour should be restricted to the production of goods and services that interferes with the normative development of children as defined in the UN convention. The conflict of estimate on the incidence of child labour at a

certain point of time arose because of this definitional disagreement. ILO, in its convention no 138, classified a child as child labourer if he or she was within 5 to 14 years age and 'economically active'. A person was economically active if he or she was gainfully employed. That is, performing any work on regular basis receiving remuneration in return. It also meant that the labour input of the child resulted in output for market. Indian census also identifies child labour on this criterion. This definition was contradicted by Weiner (1996). Thus, the clash of estimate emerges because of narrow definition and broader definition. Proponents of broader definition argue that there would be gross underestimation if a child, engaged in non-market productive activity, were excluded from the child labour estimation. Work on family agriculture and looking after family animals might not always result in output for the market. The 'adult releasing activities' such as domestic chores and looking after sibling is an indirect form of economic work. Thus, this conceptual commission leads to accounting omission. This has been illustrated by Jayaraj and Subramaniam (1997) through a study in Tamil Nadu. They observe that the child labour rate in 5 to 14 years age group was 13 per cent by narrow definition and 33 per cent by broader definition. Shanta Sinha (1996) argues that segregating work done by a child into exploitative labour and non-exploitative work involved fundamental flaws. Judgment and distinction between child work and child labour were a highly subjective and artificial process. She concludes that any working child was a child labourer whatever be the degree of exploitation. Thus, we are landed in a situation where huge divergence of views on the magnitude of child labour in India exists. Only methodologically sound sample survey or broad-based censuses enumeration can establish the actual magnitude, keeping aside all the misconceptions about the child labourer. There should be an unambiguous demarcation between child work and child labour. The exaggerated statistics on child labour does not serve any purpose and at the same time attempts to conceal the actual number is also deplorable.

Theoretical Framework

There are a number of theoretical models to explain the determinants of child labour and education at the household level. Cost-benefit approach (Dreze and Kingdom 1999) considers the choice between work and schooling as a simultaneous decision. There is a universal trade-off between short-term and long-term gains. (Schultz 1960; Becker 1962). When the child starts working, he or she earns income. If the child goes to school instead, he or she forgoes income and additionally pays for education but expects to earn more in future. Better education is presumed to ensure more earning during adulthood. Thus, the decision of the households to send the child to school or to labour force entirely depends on the parental perception of the present cost and future benefit. If the benefit exceeds

cost of education, the child would stay in school or conversely, the child would start labouring instead of schooling.

Costs of education consist of direct cost as well as indirect cost. Direct cost comprises tuition fees, textbooks, stationery, uniforms, etc., and the indirect cost is the opportunity cost of schooling hours. This cost is the foregone wage income of the child for attending school. Poor parents have no money to invest in education for their child. Borrowing for education of their child as second option is altogether closed (Tilak 1987; Jafarey and Lahiri 1999). Villagers lack well-functioning credit market and the poor people have very limited access to institutional credit. Besides, there is no organized labour market in the rural area of the third world countries. Employment in rural informal sectors, in agricultural and non-agricultural occupations is highly uncertain in view of the seasonality of work and dependence on nature. Therefore, these economic compulsions put constraints on the parents to invest in education in expectation of a good return in future. There are still debates on the positive return to education. It is said that return to education is higher for primary school leavers and females (World Bank 1980, Tilak 1987). Some authors do not agree and they have established that return to primary education is not high as claimed (Jafarey and Lahiri 1999, McEwan 1999). Positive return to education of the children of landless and agricultural labour families has not been empirically established. But positive impact of education of the child on farm productivity has been found (World Bank 1980; Psacharopoulos and Woodhall 1985).

Poverty is cited as the primary reason of child labour. It is a fact that poorer households have more need for immediate survival than incurring cost on education. There are a large number of studies to prove this point (Bequele and Boyden 1988; Jain 1994; Grootaert and Kanbur 1995). The analysis of household surveys also presents a negative effect of low family income on child schooling (Levy 1985; Buragohain 1997; Singh and Santiago 1997). A review of Latin American countries shows that without the income of the working child incidence of poverty would rise by 10–20 per cent (United Nations Economic Commission 1995). In a Brazilian study it was found that the average child earned a substantial amount of families' total income (Levison 1993). It has been found that so called "free" compulsory education covered only 20 per cent of the total cost of schooling. Other costs for books, uniforms, stationery, transportations had to be borne by the parents (Ennew 1993).

Thus, like poverty, high cost of education also keeps children out of school and increases the probability of the child joining the labour force. At the same time, a number of studies prove that poverty is not the only and the main cause of child labour. Empirical studies using large number of household data show inconsistent impact of household income on child work and child schooling (Psacharopoulas 1997; Bhalotra and Heady 1998; Ravallion and Wodon 1999; Ray

2000). Some of the scholars argue that poverty is just over-emphasized as a dominant cause of child labour (Krishna 1996; Bhatty 1998; PROBE Team 1999). Poverty is a supply side factor in child work and parental literacy is a demand side factor in child schooling. Adult illiteracy leads to lack of demand for child schooling (Weiner 1991; Bhalla 1995; Burra 1995). Very strong effect of parental education on child schooling based on econometric work has been found (Rosenzweig and Evenson 1977; Kanbargi and Kulkarni 1991). The understanding assumption is that parents, having no experience of school, do not value education irrespective of the conditions of the households.

Objectives

In the background of these debates on the determinants of child labour and child schooling and the conflict of estimate on the magnitude of child labour, this paper seeks to study: (1) the actual incidence of child labour in a village setting and variation thereof; (2) the extent of school participation, schooling deprivation and the number of 'nowhere' children; (3) the impact of parental literacy on the schooling status of children; (4) the effect of parental literacy on the work, schooling and "nowhere" status of the children; (5) the impact of poverty on child labour, school participation and "nowhere" status of the children; and (6) the difference in labour and school participations as a result of difference in nature, locational settings, accessibility of schools and specialities among the villages.

Study Area, Data Set and Methodology

Jalpaiguri district, in the northern part of West Bengal, was chosen for the household survey, in view of the author's residence, easy accessibility and well acquaintance of the study area. Villages were selected on the basis of multistage random sampling method. Three blocks (Panchyet Samiti), namely, Jalpaiguri Sadar, Mal and Rajgunj, were selected out of 13 blocks in the district. Thus, the block in the district was the first stage of our study. From these three blocks, two Gram Panchayats (GP) from each block were selected at random: Kharia and Paharpur Gram Panchayats from Jalpaiguri Sadar block, Kranti and Rajadanga from Mal block, Sukhani and Panikouri Gram Panchayat from Rajganj block. Gram Panchayats were included in the second stage of the study. In the third stage, six villages, namely, Sukanta Nagar, Balapara, Khalpara, Baroghoria, Kaluarbari and Moghapara, were selected from each of the six gram Panchayats. All the households having children from 6 to 17 years of age in each village were covered for the study. Thus, we had 3,172 children in 6 villages. Child labour was estimated on the basis of ILO definition, therefore, the children between 6 and 14 years of age were considered. Child labour has been defined as work that hampers normative development of a child as per Article 29 of the convention of the rights of the child. They are engaged in economic

activities, in household or outside for quite long hours on regular basis. Here, labour means an input that is utilized for the production of goods and services. It interferes with the opportunities for a desirable minimum of education and their needed recreation. A child labour is out of school only to undertake labour activities. The child contributes to family income, therefore, that labour is indispensable for his or her family's survival. The nature of labour relation (Paid - unpaid, hired or self-employed) is immaterial to this definition. A crucial distinction has been made between child work and child labour (Lieten 2000). Light work like fetching water, cleaning utensils, grazing cattle, attending family farm, guarding crop constitute work but not labour. These work activities do not interfere with schooling and are often construed as beneficial for the child (Fyfe 2001). Child labourers are engaged in paid as well as unpaid economic activities. The unpaid economic activities that child labourers undertake comprise work on family farm or in family business. Farm work includes family agriculture as well as animal husbandry at home. 'Nowhere' children are those who are neither in school nor in any work activities that impede their normative development. They are out of school not because any work engagement has forced them to withdraw from school. The schooling deprivation of this category of children is caused more by supply side factors of schooling, for example, the school is far away or the curriculum is unattractive or even the school is overcrowded etc. These children undertake many light activities, economic as well as non-economic, at home. The economic activities include, for example, light farm work, tending cattle, attending family shop etc. The non-economic activities include kitchen work, fetching water, looking after sibling, collection of firewood, attending market etc. A pre-tested questionnaire was used to record the data from the parents, particularly the father of the child. The household survey was carried out from September 2001 to March 2002. Data on parental education, child schooling, poverty level and economic activity were collected through interview method as well as observation. Simple statistical technique such as percentage and frequency distribution has been used to present the data in the tabular form.

Village Features

Jalpaiguri is one of the backward districts located in the northern region of West Bengal, familiarly known as North Bengal. The geographical area consists of agricultural land, forest and tea gardens. Most of the tea gardens are on the verge of closure resulting in largescale unemployment of garden labour. Lack of modernization, faulty government policy and cheap imports are some of the causes behind this crisis. Industrialisation, neither in private sector nor in government sector, has taken root. This district was declared 'non-industry' district by the government a few years ago. Agriculture, therefore, is the source of livelihood for

Table 1: Study Villages, Village Types and Children

Block (Panchayat Samiti)	Village	Special Feature	No. of Households Having Children (6-17 Years Old)	No. of Children (6-17 Years)	Average Children per Household
Jalpaiguri Sadar	Sukanta Nagar	Urban periphery outskirts of Jalpaiguri District town	337	672	2.00
	Bala Para	Located on the northern side approach road to Jalpaiguri District town	205	414	2.02
Mal	Khal Para	Remote agricultural village, lack of communication	253	624	2.47
	Baroghoria	Forest Village away from the urban locality, bad communication	263	665	2.53
Rajgunj	Kaluarbari	Surrounding rural town and better communi-cation	176	386	2.20
	Mogha Para	Encircling block market and town. Has better communication	205	411	2.00
	Total		1439	3172	2.20

a majority of its people. Very few people are in trade, business and service. Pace of urbanization is therefore very low.

Sukanta Nagar is located just on the outskirts of the district township Jalpaiguri. Most of the households are landless. Owing to proximity to the district town, working children of this village are engaged in a variety of urban-centred activities. They work in shops, restaurants, hotels, tailoring shops, and as barbers, mason helpers, garage and factory hands. Child domestics are common in this village. This is the largest village out of our 6 sample villages with the highest number of households standing at 337.

Balapara is located on the northern side approach to the district town of Jalpaiguri, 10 kilometres away from the main town centre. Agriculture is the main activity of some households in this village. A substantial number of households are engaged in the production of puffed rice (*Muri*), which is home based.

Khalpara is a remote village 45 kms away from the district town of Jalpaiguri. Agriculture is the only source of livelihood. Road communication is in very bad shape. Working children are employed in agriculture and allied work.

Baroghoria is a forest village. Along with agriculture, illegal forest felling is the source of livelihood for the people. Children are engaged in forest pilferage and sale in the rural market along with seasonal agricultural activities, farm work or as agricultural labour.

Kaluarbari is located on the State Highway connecting Jalpaiguri and 'Siliguri' towns, the commercial nerve centre of North Bengal. It has very good communication, and agriculture is the main occupation of this village. A majority of the parents have schooling experience and higher level of literacy.

Moghapara is located very near the market town of Rajganj Block. Main ccupation of this village is agriculture, but a large number of adults work as daily labourers in urban informal sectors in nearby Siliguri Town. The parental literacy is considerably high.

Parental educational attainments and children's schooling status: Children are of three distinct categories by way of schooling status, namely, 'current students', 'drop-out' and 'never enrolled'. Parental literacy rate has been found to be positively related to schooling participation of children. Two villages in the Rajganj Block, namely, Kaluarbari and Moghapara, with better parental literacy are also marked by children's schooling participation rates of 79 and 82 per cent respectively. The latter is the highest among all these six villages and the former comes at the second position. Maternal literacy has been found to be highest (54 per cent) in Moghapara followed immediately by Kaluarbari (50 per cent). However, Kaluarbari tops the list in achieving paternal literacy to the extent of 73 per cent followed by Moghapara at 63 per cent. Evidently Moghapara is ahead of Kaluarbari in school participation of children, although by a smaller percentage point of 3 despite having lower parental literacy achievement than that of Kaluarbari and in this case also, Moghapara is lagging behind on that score by only 3 percentage points. But the apparent absence of any positive correlation between those village-level macro variables should not be construed as weakened efficacy of parental literacy. The strength of parental literacy is overshadowed here by the availability of schools that slightly differentiate the two villages. Moghapara, by dint of its location, can avail more schools, both primary and secondary. We observe that the distance of schools located around Moghapara to which children of Moghapara seem to have easy access. The close propinquity to market town bestows this village with the provision that eludes other villages. The lowest school participation of children at 58 per cent in Baroghoria is characterised by very low paternal literacy of 59 per cent and maternal literacy rate of only 18 per cent. Location of Baroghoria puts many hurdles; schooling access is one of them. This remote forest village lacks communication facilities.

Schools have not come up in this forest fringe and children have to saunter around 2 kilometres on deranged road, which in turn is mud-spattered during rainy season. The number of never enrolled children has been found to be inversely related to parental literacy attainments. The lowest percentage of never enrolled children of 5 per cent is in Moghapara, where parental literacy is substantially high. The percentage of never enrolled children is highest (24 per cent) in Baroghoria where parental literacy rate is lower. Dropout children were highest (19 per cent) in Sukanta Nagar where paternal literacy rate was low at 46 per cent. This dropout rate was comparatively lower (10 per cent) in Balapara of the same block where paternal literacy rate was higher at 61 per cent. The study thus finds that variation in paternal and maternal literacy was accompanied by variation in school participation of village children. Villages marked with relatively better parental literacy were also characterized by higher schooling participation of children and, therefore, lower incidence of educationally deprived children.

Table 2: Parental Literacy and Schooling Status of Children (6-17 Years) of Six Villages in Jalpaiguri

Village	Father's Literacy Rate %	Mother's Literacy Rate %	Percentage of Never Enrolled	Percentage of Dropout	Percentage of Students
Sukanta Nagar	46	28	17	19	64
Bala Para	61	15	13	10	77
Khal Para	54	16	18	17	65
Baroghoria	59	18	24	18	58
Kaluarbari	73	50	9	12	79
Moghapara	63	54	5	13	82
All Villages	59	30	14	15	71

Schooling status of children had a positive link with schooling experience of their fathers and mothers. Put in a slightly different way, a child's landing in any position relating to schooling—never enrolled, dropout and current student—to a large extent, depended on his or her parental educational experience. Parents with schooling background tended to send their children to school. On the other hand, illiterate parents lacked the demand for schooling of their children, as they did not attach value to education. There are a number of studies, e.g. Weiner 1991, Bhalla 1995 and Burra 1995, which establish this determining role of parent's education. The present study has gone one step further by categorizing all fathers and mothers in distinct education group, i.e., from illiterate to highest education as the college level. It has come to light that schooling participation of children increased gradually when their fathers' and mothers' educational attainments increased from illiterate

status to neo literacy, primary to upper primary, secondary to higher secondary and thus up to the highest category of college education by the parents.

Table 3: Schooling Status of the Children by Parental Education of Six Villages

Schooling Status	Never Enrolled		Dropout		Student	
	% of Children by Father's Educational Level	% of Children by Mother's Educational Level	% of Children by Father's Educational Level	% of Children by Mother's Educational Level	% of Children by Father's Educational Level	% of Children by Mother's Educational Level
Illiterate	21.27	18.36	15.04	15.87	63.67	65.76
Neo literate	11.83	06.75	14.58	16.89	73.57	76.35
Primary	13.37	05.88	17.56	16.80	69.06	77.31
Upper Primary	04.60	00.83	14.22	13.33	81.16	85.83
Secondary	02.02	01.42	10.81	00.00	87.16	98.57
Higher Secondary	08.33	00.00	00.00	00.00	91.66	100.00
College & Above	00.00	00.00	03.22	00.00	96.87	100.00

Table 3 presents a cross tabulation of schooling status: never enrolled, dropout and current students of 3,172 children of all the six villages with the schooling status by their fathers' and mothers' educational attainments. Out of total children of illiterate fathers, 21 per cent were never enrolled, 15 per cent dropped out and 64 per cent were in school. By the same way, out of total children of illiterate mothers, 18 per cent of children were never enrolled, 16 per cent were dropout and 66 per cent were attending school.

Thus, where fathers had college education, we did not find any child never enrolled and only 3 per cent of the children were dropout and school participation was as high as 97 per cent. The impact of mother's educational level on child schooling was spectacular. All the children of mothers having college education were attending school. A comparison between the impacts of fathers' as well as of mothers' educational attainment on children's schooling has brought a startling revelation. Viewed from each side, mother's education was a more effective force than that of father's in children's school participation.

Now, let us investigate how the variation in parental literacy across these villages was accompanied by variation in children's status relating to labour and schooling.

Table 4 presents the status of children as student, labourer and 'nowhere' by parental literacy rate. Labour participation was higher (34 per cent) in Baroghoria. A large number of children were engaged in collecting firewood and selling in the market on regular basis. They supplemented their family income by this activity.

Table 4: Parental Literacy and Children's Status as Student, Labourer and "Nowhere" for All Children of Six Villages in Jalpaiguri

Village	Father's Literacy Rate %	Mother's Literacy Rate %	Children School Participation Rate (%)	Labour Participation Rate (%)	Percentage of 'nowhere' Children (%)
Sukanta Nagar	46	28	64	20	16
Bala Para	61	15	77	9	15
Khalparaa	54	16	65	28	7
Boroghoria	59	18	58	34	8
Kaluarbari	73	50	79	13	8
Moghapara	63	54	82	9	9
Total	59	30	70	18	12

Father's and mother's literacy rates were comparatively lower at 59 and 18 per cent respectively. Khalpara in the same block had a labour participation rate of 28 per cent by the children. Agriculture wage work and farm work within home were the area of activity round the year. Multicropping and HYV seeds made agriculture more or less a year-round activity. Labour participation was very low in the two villages of Raging Block, Kaluarbari and Moghapara, 13 per cent in the former and 9 per cent in the latter with considerably lower rate of 'nowhere' children of 8 per cent and 9 per cent respectively. These two villages had a higher level of parental literacy.

The two villages in Sadar block, namely, Sukanta Nagar and Bala Para had higher rate of 'nowhere' children, 16 per cent in Sukanata Nagar and 15 per cent in a Bala Para. This coincided with a lower rate of parental literacy in these two villages.

Household Poverty, Children's Schooling and Child Labour

Schooling of children of our villages had a clear link with the economic status of the households. Out of 728 children belonging to 'very poor' economic status of the households, 25 per cent were never enrolled, 14 per cent were dropouts and 61 per cent were current students. The schooling status slightly improved with very small enhancement of economic status, i.e., ' poor' category of households. Out of 1,870 children in this poor status, percentage of 'never enrolled' was 15, dropout rate was 17 and school participation rate went up to 68 per cent. Among the children of 'middle' income category, only 5 per cent were never enrolled, 14 per cent were dropout and 81 per cent were attending school. Among the children of the rich families, the rate of never enrolment was lowest at 2 per cent, dropout rate was lowest at 12 per cent and school participation was highest at 86 per cent.

Table 5: Schooling Status of the Village Children by Household Economic Status, Age Group 6 to 17 Years (N=3,172)

Schooling Status and Gender	Never Enrolled (No.)		Dropout (No.)		Current Student (No.)		Total Children by Economic Status
Economic Status	M	F	M	F	M	F	
Very Poor	77	105	67	33	244	202	728
Poor	123	160	188	121	664	614	1870
Middle	12	14	51	25	216	216	534
Rich	1	0	3	2	21	13	40

There is an attempt in the present study to investigate the extent of child labour in all these selected study villages. Child labour has been defined as engagement in economic activity both paid and unpaid on a regular basis for children between the ages of 6 and 14 years. ' Nowhere' children were those children who neither undertook any economic activity nor attended school (Chaudhuri 1996). All the children between 6 to 14 years age group were classified into three age categories:- 6-8 years, 9-11 years and 12 to 14 years. The incidence of child labour increased as one moved from lower to higher age group (Table 6). Child labour was one per cent for the children in the lowest age group of 6-8 years. It went up to 3 per cent for the immediately higher age category, i.e., 9-11 years. Child labour was 19 per cent for the 12-14 years age category. It meant that most of the child labour was in the last age category, i.e., 12-14 age group. Thus, child labour in the age group of 6-14 years for all the villages was 10 per cent.

The study finds a negative relation between economic status of the households and the incidence of child labour. Child labour was 15 per cent, the highest among these economic groups, namely, 'very poor' category. This rate came down to 11 per cent for the slightly better-off families in terms of economic status. Child labour was 4 per cent for economically higher group 'middle' category of households. The incidence of 'nowhere' children was also negatively related to the economic status of the families. Very poor households had 15 per cent 'nowhere' children. This rate was 9 per cent and one per cent respectively for 'poor' and middle category of households. We did not find any child labour and 'nowhere' child in the rich category of households. All the children in this category were attending school. Thus, the cross tabulation of household economic status or poverty with the position of children in labour force, 'nowhere' and school indicated that poverty was a causal factor behind child labour and educational deprivation in our study villages. Poverty was overwhelmingly accepted as the cause of child labour. It is arguably true that if a family could afford schooling, children would not have joined the labour force and, instead, would have gone to school.

Table 6: Percentage of Distribution of Student, Child Labour and Nowhere Children by Economic Status and Age Group (6 to 14 Years)

(N=2,391)

	Student (%)	Child Labour (%)	Nowhere (%)	Total Children (nos.)
6-8 Years				
Very Poor	79.71	1.93	18.35	207
Poor	84.19	1.80	13.99	447
Middle	98.96	1.03	0	97
Rich	100	0	0	6
9-11 Years				
Very Poor	83.49	3.39	13.10	206
Poor	88.36	6.68	4.95	464
Middle	97.34	1.76	0.88	113
Rich	100	00	00	6
12-14Years				
Very Poor	40.98	43.71	15.30	183
Poor	64.05	25.90	10.04	498
Middle	88.07	9.27	2.64	151
Rich	100	00	00	9
6-14 Years				
Very poor	69.17	15.24	15.57	597
Poor	78.61	11.89	9.56	1412
Middle	93.90	4.70	1.38	361
Rich	100	00	00	21

Note: The economic classification of all households in the order of 'very poor', 'poor', 'middle' and 'rich' has been performed on the basis of annual income, land, house quality, no. of livestock, assets such as TV sets, cycle, electricity connection, radio, water source, number of dependents in the family etc.

The high incidence of child labour in low-income countries located in south Asia and in East Africa, in backward region within the countries and in starving families within a particular locality prompted us to identify poverty as the sole cause of child labour. Views are now emerging that poverty is one of the major causes of child labour but not the only reason. Empirical work using econometric techniques shows that the effect of household poverty on child labour and schooling is inconsistent (Psacharopoulas 1997; Bhalotra and Heady 1998; Dreze and Kingdom 1999). Poverty as a root cause of child labour gets blurred when we compare the incidence across states in India. A typical example of a poor region with an exemplary low incidence of child labour and very high schooling rate of children is Kerala

where child labour was less than one per cent as per the 1991 Census and the percentage of rural poverty was 34, whereas Punjab with very low poverty rate of only 19 per cent had nearly 4 per cent child labour. Andhra Pradesh, with poverty level almost equal to that of Kerala, was marked by an incidence of 12 per cent child labour, the highest in India.

The same is reflected in our study while comparing village-wise incidence of child labour and village-level poverty.

Table 7: Poverty and Child Labour: Inter-Village Variation

Village	Poverty Level * (%)	Child Labour ** (%)
Sukanta Nagar	87	13
Bala Para	81	6
Khapara	75	15
Baroghoria	87	20
Kaluarbari	75	5
Moghapara	82	3
Total	81	10

* Poverty level is the cumulative percentage of households belonging to 'very poor' and 'poor' as per general classification of economic status.

** Child labour is the percentage of child labourers in the total child population between 6-14 years age group.

We found that Sukanta Nagar and Baroghoria had the same level of poverty yet the incidence of child labour largely differed. The factor that differentiated the two villages was maternal literacy, which was 28 per cent for the former and 18 per cent for the latter. Khalpara and Kaluarbari had the same level of poverty but child labour was 15 per cent for the former and very low of 5 per cent for the latter. This is also explained by substantial differences in parental literacy between them. Moghapara is a wonderful example of the efficacy of maternal literacy. However, the characteristics of the villages and their specific endowment, in addition to poverty and parental education, have a definite role in determining the extent of child labour in a particular village. Infrastructure, setting, communication and proximity to urban centre are factors that also matter in children's life and in the process of their normative development. Villages differ in these endowments that results in variation in the extent in child labour and also in the incidence of schooling deprivation of children. Moghapara , for example, is well placed because of its favourable location, good connectivity and effortless access to schooling, accessible from all corners of the village, coupled with high parental education has led to reduction of child labour (3 per cent). Thus supply side factor of schooling has an ostensible effect in

encouraging schooling and discouraging child labour. At the opposite extreme, Baroghoria, the forest village, suffers serious infrastructure bottlenecks. Situated in the farthest corner of the district and surrounded by forest on three sides, inaccessibility and lack of trouble-free communication have affected schooling participation negatively. There is a pull factor as well. Proximity to forest is expedient for many poor parents to engage their children in illegal forest pilferage. Sale of forest wood is a dominant economic activity of children in this village. Schooling provision is slightly better in Khalpara but here also the pull factor works to employ children. This thriving agricultural village offers employment in agriculture, family labour as well as wage labour, for children. Nevertheless, Moghapara topped the list among the six study villages in attaining maternal literacy and it had the lowest incidence of child labour among them. Thus, we find, in the course of the survey of rural households in Jalpaiguri, the positive impact of parental education on child labour and schooling participation of children. Although the inverse effect of poverty on child labour and schooling participation has been found to be consistent while correlating labour and study status of all children with their family's relative economic position (Table 6) the same was found to be inconsistent while comparing village-level poverty ratio and village-level count of the incidence of child labour. Variation in infrastructure, particularly that of schooling endowments, has entered into the explanatory factors.

Conclusions

The study finds that the incidence of child labour was 10 per cent over these selected villages spread over the district of Jalpaiguri, located in the northern part of West Bengal. This paper considered two major characteristics of children households, namely, poverty and parental schooling experience to explain the incidence. School participation was comparatively higher in those villages where parental literacy rate was high. Grouping the parents by their schooling experience and the impact on child's schooling status was an interesting finding of this study. School participation substantially increased when both the parents improved from illiteracy to neo literacy. This rate gradually improved as parents moved to higher and higher educational attainments. Thus, educational deprivation of children depended, to a large extent, on parental education. Child labour sufficiently came down by improved parental literacy. Household poverty was found to influence the incidence of child labour and magnitude of 'nowhere' children but the impact was found to be inconsistent while studying the position of the villages with regard to poverty and child labour. The study explored the enormous impact of parental education especially mother's education and literacy attainment as a strong instrument for reducing child labour and schooling deprivation. Infrastructure endowments, especially schooling facilities, were also found to determine the extent

of child labour and school participation. Policy implications of these findings are that anti-poverty programmes, targeting those families depending to any extent on child labour, should be implemented immediately. With a view to reducing the cost of schooling of poor children stipends to cover all private cost of schooling and incentives to match the opportunity cost of time should be provided. Adult literacy programme should cover all the villages with sustained effort from Panchayats and making it a popular movement at the village level. Finally, awareness campaign, formation of village education council (VEC) can substantially reduce child labour and increase school participation. Improved communication, establishment of elementary schools within the neighbourhood of village children can substantially reduce child labour and encourage school attendance.

References

Becker, G.S. (1962). Investment in Human Capital: A Theoretical Analysis. *Journal of Political Economy*, LXX(Part 2):9-49, October Supplement Special.

Bequele, A., and J. Boyden (1988). *Combating Child Labour*. Geneva, ILO.

Bhalla, A.S. (1995). *Uneven Development in the Third World: A Study of China and India*. London: St. Martins Press.

Bhalotra, S., and C. Heady (1998). Child Labour in Pakistan and Ghana. Bristol: Department of Economics, University of Bristol (mimeo).

Bhatty, K. (1998). Educational Deprivation in India: A Survey of Field Investigation. *Economic and Political Weekly*, July 4, 1,731-40.

Buragohain, T. (1997). Differentials in Literacy Rate by Social Group. *Margin*, 29(3): 267-82.

Burra, N. (1995). *Born to Work: Child Labour in India*. New Delhi: Oxford University Press.

Chaudhuri, D. P. (1996). *A Dynamic Profile of Child Labour in India 1951- 1991*. New Delhi: ILO.

——— (1998). Challenges of Child Labour in India: A Multidimensional Problem in Need of an Orchestrated Policy Response. A Working Paper Presented at the ILO –IPEC Workshop on *Policy Changes for Elimination of Child Labour in Rural Areas* held at the National Institute of Rural Development, Hyderabad, July 1998.

Colclough, C. (1973). Human Development: Towards a More Integrated Framework for Planning in the 1990. *IDS. Paper No 323*. Sussex: IDS.

Dreze, J., and G. G. Kingdom (1999). *School Participation in Rural India*. Delhi: Delhi School of Economics.

Ennew, J. (1993). *Learning or Labouring Innocenti: A Research Paper*. Rome: International Child Development Centre.

Fyfe, Alec (2001). *Child Labour, Policy Option*. Amsterdam: Akshant.

Grootaert, C., and R. Kanbur (1995). Child Labour: An Economic Perspective. *International Labour Review*, 134(2):187-203.

Jain, Mahaveer (1994). *Child Labour in India: A Select Bibliography*. New Delhi: National Labour Institute.

Jafarey, S., and S. Lahiri (1999). *Will Trade Sanction Reduce Child Labour*". University of Essex (mimeo).

Jayraj, D., and Subramaniam (1997). *Child Labour in Tamil Nadu: Preliminary Accounts of its Nature, Extent and Distribution*. Chennai: Madras Institute of Development Studies.

Kanbargi, R., and P.M. Kulkarni (1991), Child Work, Schooling and Fertility in Rural Karnataka. In R. Kanbargi (ed.). *Child Labour in the Indian Subcontinent: Dimension and Implication*. New Delhi: Sage Publications.

Krishna, S. (1996). *Restoring Childhood: Learning, Labour and Gender in South Asia*. New Delhi: Konark Publishers Pvt. Ltd..

Levison, D. (1993). Child Work & Schooling in Brazil's Cities: Lesson from Survey Data. Unpublished. University of Cambridge.

Levy, V. (1985). Cropping Pattern, Mechanisation and Child Labour and Fertility Behaviour in a Farming Community: Rural Egypt. *Economic Development and Cultural Change***,** 33(4):777-91.

Lieten, G. K. (2000). Children, Work and Education. *Economic and Political Weekly*, XXXV (24): 2,037-43.

McEwan, P. J. (1999). Private Cost and the Rate of Return to Primary Education. *Applied Economics Letters*, 6(11): 759-60.

MHRD (1998). *Status Report*. Ministry of Human Resource Department, Government of India, Department of Education, New Delhi.

Ministry of Labour (1997). *Annual Report (1996-97)*. New Delhi: GOI.

Nieuwenhuys, O. (1994). *Children's Life Worlds, Welfare and Labour in the Developing World*. London: Routledge.

Planning Commission (1993). *Eighth Five Year Plan*. Vol. II. New Delhi: GOI.

PROBE (1999). *Public Report on Basic Education*. New Delhi: Oxford University Press.

Psacharopoulos, G. (1997). Child Labour versus Educational Attainments: Some Evidence from Latin America. *Journal of Population Economics*, 10 (Part 4): 377-86

Psacharopoulos, G., and M. Woodhall (1985). *Education for Development: An Analysis of Investment* Choices. New Delhi: Oxford University Press.

Ravallion, and Wodon (1999). Does Child Labour Displace Schooling?: Evidence on Behavioural Responses to an Enrolment Subsidy. *The Economic Journal*, 110(402): 158-75.

Ray, R. (2000). How Child Labour and Child Schooling Interact with Adult Labour. *The World Bank Policy Research Working Paper, No. 2179*. Washington DC: The World Bank.

Rosenzweig, M. R, and R. Evenson (1997). Fertility, Schooling and the Economic Contribution of Children in Rural India: An Econometric Analysis. *Econometrica*, 45(5): 1,065-79.

Schultz, T. W. (1960). Capital Formation by Education. *Journal of Political Economy*, LXVIII(6): 571-83.

Sinha, Shantha (1996). Child Labour and Education Policy in India. *The Administrator*, XLI, September.

——— (2000). Child Labour and Education. In Rekha Wazir (ed.). *The Gender Gap in Basic Education*. New Delhi: Sage Publications.

Singh, R.D., and M. Santiago, (1997). Farm Earnings, Educational Attainments and Role of Public Policy: Some Evidence from Mexico. *World Development*, 29(3): 2,143-54.

Tilak, J. B. G. (1987). *The Economics of Inequality of Education in India*. New Delhi: Sage Publication.

Weiner, M. (1991). *The Child and the State in India: Child Labour and Education Policy in Comparative Perspective*. Princeton: Princeton University Press.

——— (1996). Child Labour in India: Putting Compulsory Education on the Political Agenda. *Economic and Political Weekly*, November 9-16, pp. 3,007-14.

World Bank (1980). *World Development Report 1980*. New York: Oxford University Press.

Book Reviews

S. Mahendra Dev, K.P. Kannan and Nira Ramachandran (eds.). *Towards a Food Secure India: Issues and Policies.* New Delhi and Hyderabad: Institute for Human Development; Centre for Economic and Social Studies. 2003. Rs.750, US$40.

Food security subsumes availability of and accessibility to adequate food with the requisite number of calories. The growth-led and support-led policies, coupled with liberalisation measures in trade, tariff and movement of food items from surplus to deficit regions have brought about self-reliance in and sufficiency of food. Nevertheless, a catch–22 situation still prevails in accessibility to food or entitlement. As Sen envisages, exchange entitlements (inheritance or transfers, production, own labour and trade based) determine the accessibility to adequate food. Hence, exchange entitlement mapping is increasingly essential in order to have real-time data on access to food grains in vulnerable regions.

The edited book under review is the outcome of a three-day seminar on food security organised at Hyderabad in March 2000 by the Institute for Human Development and Centre for Economic and Social Studies, and sponsored by the Ministry of Consumer Affairs and Public Distribution, Government of India. The edited book puts together twenty well-researched articles and a lucidly written introduction. The articles have been organised into five parts of equal importance based on demand and supply estimates of the food situation in India, response to globalisation at the regional level, grass-roots experiences and emerging perspectives. The introduction by the editors of the book lucidly summarises the various measures undertaken in India since independence with both theoretical rhetoric and experiences in India as a whole. It also captures the antinomies in agricultural production, food security and employment in the context of modernisation.

The first part, which deals with demand for and supply of food grains, projects the demand for food grains in 2020 between 241 (Bansil) and 269 million tonnes (Kumar and Mittal) and supply of food grains between 248 and 289 million tonnes. Bansil has proposed an incremental demand model by incorporating the demand for fodder also into it. C.H. Hanumantha Rao, analysing the factors responsible for the decline in cereal consumption, states that the decline is noticed largely among the upper expenditure groups and, to some extent, among the middle income groups. The significant factors identified for the declining demand are improvement in rural infrastructure and mechanisation of farms, resulting in a declining need for physical labour.

The papers in the second part emphasise macro and international trade policies for ensuring food security at the household and national levels. V.S.Vyas

discusses the concept of food security in its four essential elements, viz., availability, household's entitlement, stability in supply throughout the year and protection against malnutrition. Application of Engel's law is also highlighted through the decline in the proportion of expenditure on food items and in per capita consumption of cereals. He confines the discussion to the first three aspects and the relevant policy implications. Yoginder K .Alagh focuses the discussion on the relevance of comprehensive MIS and decision support system for achieving food security and removal of hunger with efficiency and effectiveness in the new trade regime. As modern management principles emphasise, the decision support system should rely on real-time data generated on a daily basis through well-established MIS. Mahendra Dev examines the implications of Agreement on Agriculture (AOA) under WTO and Food Security in India. He concludes that AOA does not seem to pose a threat to food security as of now. Nevertheless, India has to be vigilant regarding international trade. In comparison with developed countries, trade distorting domestic support provided by India accelerates agricultural growth through public and private investments, diversifies activities and augments rural employment and ascertains better food security by ensuring economic access to households.

In the third part food security in different states is discussed. Dubey and Kharpuri examine the food security problems in the Northeastern states in India. K.P. Kannan presents a regional perspective on food security with reference to food-deficit Kerala. It faces deficits in rice, other cereals, pulses, vegetables and sugar. In rice, 75 per cent of its requirement is realised through PDS and private sources. With restrictions on the movement of goods since the seventies, it has become acute. He observes that the political economy of decline in the production of food crops, particularly rice, is closely related to the larger political economy of development in Kerala. Vidyasagar examines the present and future food security issues in Rajasthan with large agricultural instability. The analysis of production availability and instability in food grains suggests that similar to the Andhra Pradesh situation, eight out of 30 districts produce around fifty per cent of the food grains. A few districts are totally vulnerable, indicating the regional variations within the state food security in Rajasthan. It is suggested that it could be ensured through strengthening of agricultural infrastructure, regulated markets, roads and gearing up of the livestock sector. Jos Mooij delves into the political economy of the functioning of the PDS in Bihar and Jharkhand through government ineffectiveness, underdevelopment, stagnation, changing political landscape and breakdown of traditional political order. Nisha Srivastava examines the paradox of food security in a food surplus state, Uttar Pradesh. She envisages that poor governance creates food security even in a food-surplus state through exchange entitlement problems. All the studies in different states across regions unanimously express concern that poor governance and geopolitical developments in the states are the factors in

food insecurity and only a vibrant civil society can subvert all these bottlenecks and nexus between power groups.

The fourth part, on grassroots experiences, consists of the experience of four states with case studies of some villages. V.M. Rao and R.S. Deshpande examine the food security in a drought-prone area in Karnataka. They bring out the leakages in PDS through diversion and problems in the delivery mechanisation. The data on consumption of food grains per household (higher than the estimation done with the NSS data) raises apprehension regarding the reliability of such data. This paper also suggests an alternative system empowering the panchayat to ensure food security through increasing emphasis on coarse cereal consumption and production. Nira Ramachandran presents her vast learnings from micro-level experience in food security in the mountainous villages of Uttaranchal. Participatory techniques have been applied to elicit qualitative data from the women members on food security needs. This study emphasises the need for expanding the food security issue from foodgrains policy to sustainable food and nutrition security by including high protein content pulses and coarse grains under PDS to malnourished children, pregnant and lactating mothers.

The final part, on emerging perspectives on food security, provides diverse views on making the PDS efficient and food security system effective. Jha and Srinivasan propose that the TPDS target the poorer districts through universal coverage after identifying the districts as poor, moderately poor and least poor through poverty ranking. Swaminathan evaluates the dangers of normal targeting. She vehemently criticises the exclusion principle and division of BPL and APL. TPDS excludes a large number of vulnerable people across communities from the PDS. She analyses the costs and benefits of targeting, and makes out a case against targeting. Jean Dreze dwells on the right to food and food security issues. He rightly observes that 'the poor have never counted for much in India's lopsided democracy, and with the growing orientation of economic policy towards the (so-called) middle class, their concerns have been further marginalised.' Public accountability, participation of civil society organisations, interference of Panchayat Raj institutions and gram sabhas would circumvent some of the difficulties in targeting and ensuring right to food for all the people, particularly the needy.

The judicious mix of articles with different perspectives, experiences of different states and various methodologies to ensure food security showcase the big picture of the food security situation in India in a holistic frame. The meticulous selection of articles and placement under appropriate sub-heads makes the book readable.

N. Rajasekaran
Senior Fellow
ARMES (Academy for Rural Management and Environmental Sustainability)
Bangalore

Satu Kahkonen and Mancur Olson (eds.) (2001). *A New Institutional Approach to Economic Development*. New Delhi: Vistaar Publications. Pp. 354, Rs. 595 (Hardcover).

The main theme of the book under review is that 'capitalist institutions' do matter for economic development. The first part of the book deals with the theoretical aspects of New Institutional Economics (NIE) while the second part extends these theories to understand the empirical issues in the Indian context. Olson, in the first chapter, argues that developing countries have enormous potential to improve their income but proper governance to tap that potential is lacking. According to the author, the poor in developing countries have greater opportunity to have 'free and extra-lunches' but generating these extra lunches requires institutional reforms. The next chapter, by Joel Mokyre, extends Olson's argument one step forward and argues that the growth of developing countries depends mainly on the rate at which they adopt new technologies, since technology as such is an important institution. However, adoption of technology depends on the gains and losses of these technologies, where the gains and losses are reflected by different institutional set-up in a country. The author shows that historically, in many countries, there has been resistance to new technology but in many others (like Sweden) technologies have been adopted because, in the latter case, the agents foresee a substantial gain (through redistributive measures) from the technology to all. It should be noted that the resistance to technology by a group depends also on the nature of policies (such as industrial and labour) of that particular country as well as the strength of the political system.

Williamson's paper shows how the 'firm level analysis' could be extended to explain 'government failure' at the macro level. The central point is that to understand what is going on in the market place, one needs to include firm hierarchies and market relationship in the analysis. Williamson's analysis is 'bottom-up' approach where it starts from the firm level, leading to an analysis of the functioning of democratic governments and other non-business organizations. Williamson extends this corporate behaviour to the democratic government and concludes that those who manage government also behave in the same 'selfish' way as the corporate managers do. Therefore, the government also tends to fail in maximising the benefits of the electorate. The underlying implication is that appropriate institutional arrangements such as constitutional governance are suggested for correcting these failures. However, Willamson's analysis falls within the 'positive institutional economics' without providing any concrete normative solution.

Chapters 4, 5, and 6 deal with 'top-down' approach, where the authors make an attempt to analyse how the policies of the incentive facing leaders of the government influence the firms and private activities. Olson is concerned with how

different political set-up would deliver public goods at different levels. The point conveyed in this chapter is that the majorities and ruling groups with 'super encompassing' interests would provide more public goods than the autocratic ones. However, in many economies neither the autocrat nor the 'super encompassing interests' are the dominant agents but the narrow, self-interested lobbying groups which influence the policies. Countries with high intensity of lobbying groups will grow very slowly. Using this analogy, the author explains why some countries during post- World War II performed very well while some other countries did not.

Following Olson, De Long analyses how the interests of the kings and the governments in early modern Western Europe determined the growth or stagnation of the economies. It is noticed that the 'monarchical type' of rule for a long time in Europe affected the growth of the regions, in general, and the cities, in particular. This is attributed to the fact that cities generated more revenues (because of industrial development) and the 'taking' by the monarchs with self-interest affected the growth of cities.

Similarly, Moberg extends Olson's 'theory of encompassing interests' to explain how the narrow encompassing interests of organizations were also concerned about the long-term efficiency of the society. This was made possible by, as the encompassing theory predicts, the fragmentation of larger interest groups into smaller ones with different levels of power among them. These smaller groups were concerned about the productivity of the society. However, Moberg finds additional explanation for the second question in that the political parties of Sweden were highly disciplined. The country's constitutional system is more conducive to the better functioning of the system. Therefore, Moberg's analysis propagates implementation of the normative aspects of 'public choice theory'.

The subsequent two chapters, by Montgomery and Hardin respectively, focus mainly on the cultural, ethnic, racial, religious and caste aspects of groups that provide inputs for 'broadening economics'. These two chapters try to place the 'individual' into the societal framework for the very fact that individual preferences in many cases are formed by what kind of society these individuals belong to. These two chapters convey that it is the group, rather than individuals, that matters in shaping the individuals' behaviour and their skill acquisitions and therefore, an integrated approach to social science that targets the groups would generate larger pay-offs to society.

Cooter and Bardhan focus on how social norms and social groups should impact on the roles of market and government in an economy. Cooter shows, using the essence of the game theoretic approach, that private market and open competition may lead to generate some social norms that are superior to that of the ones generated by government intervention. On the other hand, Bardhan in his chapter, argues that the market mechanism cannot provide solutions to many of the

problems of development because of non-emergence of spontaneous collective action. Therefore, he emphasizes a more nuanced theory of state.

The second part of the book deals with the application of the 'broader approach' to the Indian case. Chelliah argues that there is a need for deeper penetration of institutional changes in the Indian context, which is dominated mainly by superstition. He argues that the suppression of capitalist forces has been the major reason for the slow growth of the Indian economy. According to Chelliah, even though the capitalist forces were allowed to play a role in the economy after 1991, the effectiveness of this depended on how effectively the scientific culture was being allowed to operate. Following Chelliah, Sinha also argues for institutional reforms so that the economic reforms initiated in India would become more effective. Leijonhufvud deals with how technical advances in the past resulted in division of labour and large network of people who were involved in the transaction. According to the author, larger the market, the greater the division of labour and efficient production and any intervention in the market would hamper the growth. Therefore, Fikkert, in his interesting paper, looks at the impact of the 'licence raj' adopted in India prior to the liberalization era and its impact on technological innovations. He argues that the government intervention in the pre-1991 era was 'too much' rather than 'too little'. The author brings out convincingly how government intervention in the pre-1991 period even controlled the capital, output level, location and product mixes affecting the performance of the economy. Anand Swamy argues that the rich and middle farmers in the rural areas of India have 'encompassing interest' because these are the farmers who are benefited more from rural investment. Therefore, rather than subsidy, the farmers' movements aim at bringing larger investment into the rural areas. In the last chapter, Chelliah utilizes (without explicitly mentioning) the essence of 'public choice theory' to explain how the 'self-interested' civil servants design the fiscal policies in India with the aim of getting larger benefits for themselves. Devolution of fiscal resources to state governments by the central government leads to inefficient use of the resource due to corruption. This corruption affects economic growth in the long run. Chelliah concludes that traditional public finance theory does not take into account these kinds of issues and therefore, the theory requires a broader approach.

It should be noted that the book under review has brought out, in a very systematic way, the importance of institutions in economic analysis. The major strength of this book is that it highlights how the approach to economics could be broadened by way of bringing inputs from 'suburbs', by developing theoretical framework as discussed in the first part of the book. However, the entire analysis, both theoretical as well as its extension to the problems in the Indian economy, could be safely described as a 'positive institutional analysis' rather than as a 'normative' one. What kind of institutions and how they should be shaped, modified

or eliminated are some of the questions that require detailed investigation. The book provides this as a rich research agenda for future work.

Assistant Professor ***L. Venkatachalam***
Economics Unit
Institute for Social and Economic Change
Bangalore

S. L. Rao. *Governing Power: A New Institution of Governance, the Experience with Independent Regulation of Electricity*. New Delhi: TERI. 2004. Pp.484. Rs.580.

S. L. Rao's book, *Governing Power*, is the first comprehensive review of India's experience with independent regulation in the electricity sector. As the ex-chairman of the Central Electricity Regulatory Commission (CERC), S. L. Rao brings credibility and first-hand knowledge to bear, and provides an informed perspective on the role of regulation in governance, and its efficacy in India. The book gives the appearance of a text book-like collection of essays on various aspects of independent regulation, both pedagogical and experiential. It also provides some context and scant case studies from international experiences with regulation. Unfortunately, a lot of information lies buried in a somewhat disorganized manner in appendices, boxes, and chapter sub-sections. The book contains many diagnostic insights on the workings of India regulators, their constraints and relationship with government. However, the informed reader may find that many chapters lack adequate synthesis and analysis of the information provided. Some scattered opinions, conjectures and suggestions for change lack enough substantiation to convince the readers or give them an appreciation of their implications.

Regulation had its birth in the US in the twenties to restrict monopoly power in fuel and security markets. Independent, or 'new-style,' regulation came about in the UK to protect the private sector from government intervention in previously state-owned industries. Regulators proliferated across the world as part of country liberalization and privatization programmes in the nineties. These were intended to shield industry from government interference. They made rules (legislative), implemented them (executive) and adjudicated disputes (quasi-judicial). They had significant power, often answerable only to Parliament, yet they were expected to be accountable for their actions. In India's power sector, independent regulators have the added challenge of regulating state-owned entities (state electricity boards), which makes them more susceptible to government interference. Rao provides an encouraging explanation for this complexity and attendant challenges.

In his first two chapters, Rao discusses the basis and origin of independent regulation, and the boundaries between policy-making and regulation, from a definitional and practical perspective. Effective policy implementation requires administrators to have discretionary rule making capacity through 'delegated legislation.' By implication, regulators continually cross the line between making and implementing policy. He briefly discusses federal-state jurisdictional issues in electricity with an analogy to the US. He highlights the need for federal control over electric transmission as electricity flow doesn't respect state boundaries. His assertion that the Indian system recognizes this in its framework is somewhat misleading. In fact, states are responsible for intra-state transmission regulation, and inter-state transmission is ambiguously defined in the Electricity Act.

The third chapter deals with the unique characteristics of independent regulation, in theory, and in its implementation in India. Structural, functional and process aspects are articulated. Independent regulators are distinguished from 'old-style' regulators primarily by their quasi-judicial powers, the transparent nature of their regulatory process, and their 'arms-length' from the government. A useful, but incomplete, side discussion highlights some differences between the UK and US regulatory models. Conspicuously absent in this discussion is the difference in regulatory rule making process. The US has an open, participatory and democratic process, while the UK system is consultative, but closed, wherein the regulators have no obligation to publicize their internal proceedings.

The author discusses the infringement on regulatory autonomy by government in India. With a virtual veto power to protect the 'public interest,' the government grants itself full discretionary power to supercede regulatory orders through policy directive, or in the case of TRAI, to supersede the commission altogether. As later chapters show, the government has exercised this discretion. Indian electricity regulators have not gained the autonomy and legitimacy needed for effective functioning.

The next two chapters provide a background to the history of electricity sector evolution in India and some international experiences. The former provides useful facts and figures on the key players, financial and physical performance characteristics, tariffs trends, and a description of the logic for privatization. Again, a few statements such as, "privatization should not replace state monopoly with private monopolies (it does, but that is unavoidable)…This can be avoided if distribution wires remain a neutral natural monopoly while small supply circles related to each substation are privatized" leave the reader confused. This implies a separation of the wires from the electric supply business and a privatization of the latter, but at the level of each substation is mystifying.

The international experiences on regulation involves a comparison of three ostensible market models, US, UK, and Latin America (Argentina, Peru, Chile) along a set of dimensions pertaining to regulatory characteristics — basic aspects,

accountability, control, effectiveness and competition regulation. A second section examines the role of government and regulators in tariff-setting in each of these countries. These are informative, albeit very brief. Their usefulness is limited by the absence of a good rationale for the categorization of models, and a comparative analysis of the information provided.

The next two chapters provide the real value of this book and tap on the expertise of the author. How has electricity regulation been framed in India, on paper, and how does it function in reality? He describes the relationship of the regulator to the government and judiciary, providing detailed insights into the mechanisms of capture by the ministries due to their ability and desire to control the regulated state-owned utilities. The chapters also provide summaries of the Delhi and proposed Karnataka privatization transactions and the diluted roles of the regulator built therein. In his analysis of regulatory efficacy, he summarizes the results of the only survey done of electricity regulators (by Prayas Energy Group), which exposes the lack of capacity, dominance of bureaucrats and utility staff, high level of vacancies, limited transparency and high level of non-compliance among regulatory commissions.

A chapter on regulatory law and procedure analyzes substantively the corpus of litigation (from the courts) and orders (from regulators) that has emerged. Several citations discuss the courts' positions on regulator autonomy, bias, policy-making powers, capture, jurisdiction and other issues. But what are his positions on whether this corpus reflects a general respect of regulators' autonomy, or on whether the courts have held regulators accountable? Are they consistent in these positions? The West Bengal High Court order was unprecedented in its position on consumer intervention as well as its disregard for regulatory competence. What do these imply for the future of regulatory credibility and accountability? The reader is left unsure what to make of these cases.

Overall, what outlook on Indian regulators does one take away from this book? Rao presents a cynical perspective on the role of the Indian state regulators in influencing reforms. Factors external to their domain, particularly state government policy and the information lacunae within SEBs, drive, or slow down, reforms. Favouritism toward SEBs in state policy has filtered into state regulatory actions. Indeed, state governments seem to benefit from having emaciated regulators serving as their pawns; though, he has positive words for the CERC. He questions the value of electricity being a concurrent subject, suggesting fewer regulators and centralized policy-making may be better. Rather than finding ways to strengthen the regulator and overcome its failings, he suggests alternative models, including a retraction into the government domain. In one chapter, the Election Commission is suggested as a potential template for ERCs. Unfortunately, neither of these suggestions is explored nor substantiated. He does not address why reverting to

an 'old-style' regulation will be any different from the failures experienced in the eighties and early nineties. Independent regulation has created one avenue for bringing public scrutiny to SEB operation, with its emphasis on transparency and consumer involvement. Although they have hardly penetrated the shell of opacity surrounding SEBs, would not fewer and centralized regulators distance them further from the SEBs, and therefore, vitiate the few benefits offered by independent regulation?

Aside from these open questions, this book is a useful read for those interested in the new experiences of independent regulation in India.

Visiting Faculty ***D. Narasimha Rao***
Indian Institute of Management
Bangalore

Mira Seth. *Women and Development: The Indian Experience*. New Delhi: Sage Publications. 2001. Pp. 283. Rs. 295.

Developmental efforts by the government and non-government organizations to enhance the status of women in India have accelerated since independence. Discussions in assessment and evaluation of the developmental activities by the intelligentsia, administrators, policy makers, researchers, etc, have also increased. The book under review discusses the status and position of Indian women while evaluating the schemes and policies. It is a comprehensive account of women's development programmes since India's independence.

The author begins with a detailed description of the historical position of women in Indian society as a background for the study. She attempts to trace the position of women in ancient civilizations and cultures like Aryan, Dravidian, Vedic, Harappa, Mohenjodaro, Mesopotamian, Egyptian etc. The emergence of the concept of the mother Goddess and importance of female deities in society in different cultures is revealed in her writings. She highlights the way women represent sexuality, sensuality, and energy of action. Her discussions on women include the philosophical debates of Hinduism, Jainism and Buddhism. The status of women in Mughal Empire and in Rajput families is also recorded. Changes in the women's position in colonial and pre-independent India also form a crucial part of her discussions. The author, in her introductory chapter, attempts to provide a background for the study with poetic illustrations by voicing the status of women in India historically. It documents an interesting account of the evolution of women's status and position in India since ages.

She examines the policies and developmental programmes and policies instituted by government after independence in the second chapter, and also articulates the rights and status of women in Independent India. The author argues

that the policies and planning have emerged out of a modern liberal ethos. She discusses several acts, legislative measures and policies which have influenced the women's status. She analyses the steps taken by the government from the first five year plan to the ninth plan in terms of education, employment, health etc. The role of the NGO is also included apart from the government measures. The chapter makes an assessment of several governmental and non-governmental initiatives in an effort to empower women politically, economically and socially. She states that since the process of policy making and planning is a continuous one and always evolving, the government's endeavours can be judged only eventually.

With a bit of evasive conclusion in the second chapter, she opens up a crucial issue of 'girl child' in the subsequent chapter. She addresses several related issues like skewed sex ratio, child mortality indices, nutritional status, health and educational services available for the girl child. The exclusive chapter on 'girl child' examines schemes initiated by the government and makes a review of the status of girl child in different states. It is indicated that it is largely the people's perception deeply ingrained in the Indian psyche which cuts the barriers of caste, religion and region and makes the birth of the boy child more desirable than that of the girl child.

The subsequent three chapters document efforts made by the government and non-government organisations in the field of women's education, health and employment. Education is considered to be a crucial key to social development and the analysis reveals that female literacy rates have a great impact on health and social issues including sex ratios, mean age of marriage, crude birth rate and death rate. Then a chapter is devoted to a discussion of women's health in detail evaluating some of the health programmes initiated by the government and non-government agencies. The author discusses how the institution of marriage affects women's health status and emphasizes the need for training women in demanding access to their personal health care in a family. An assessment of women's employment opportunities is another key issue discussed in the subsequent chapter. Criticizing several schemes and policies, the author comments that new employment opportunities for women should be self-sustaining while skill training programmes should be based on market research on employability. In the three separate chapters on women's education, health and employment, an attempt is made by the author to place them in the context of achievement made in other developing countries.

Chapter seven documents several incidents of crime caused against women throughout the nation for the past one decade. The chapter on crime seems to be included with a view to addressing the ways in which the development activities and efforts are hindered through crimes against women since women at large are not able to access it. The chapters on education, health, employment and crime are rich with tabular data suggesting national and international comparison.

The first chapter seems to be unconnected with the rest while there seems to be a rich flow of thought in the third, fourth, fifth and sixth chapters. The author

does not have immediate or suggestive conclusions in each of them due to which they still remain fragmented. However, the author has endeavoured to tie up all the loose ends in her conclusion chapter. She suggests as to how women themselves can contribute to enhance their social, economic and political situation by playing a positive role in building their self-confidence and promoting self-reliance in them and in their daughters.

The book airs the views of an administrator and development professional in planning and implementing women's developmental programmes. Researchers, government agencies, non-government organizations, social workers, and policy makers interested in gender studies and human resource development can benefit from the rich information provided by this book.

Ph.D. Scholar ***Deepthi S.***
Institute for Social and Economic Change
Bangalore

Nira Wickramasinghe. *Civil Society in Sri Lanka: New Circles of Power.* New Delhi: Sage Publications India Pvt. Ltd. 2001. Pp.178. Rs.395.

With increasing mobility of factors of production such as capital and instant diffusion of technology and information across national boundaries, most developing countries, in varying degrees, are participating in a growing process of integration of their national economies into a global world economy. This new world order can be described in the Hegelian term of 'circles of circles,' each delineating areas of sovereignty or power. The world is today interconnected in many ways. This book is written with the purpose of demonstrating the separate ways in which the different forces and processes induce this interconnectedness rather than encompassing them in a framework such as globalisation.

This book addresses the different ways in which new circles of power (consisting of international and transnational forces such as international financial organisations, humanitarian relief organisations and northern NGOs) are shaping the development state of Sri Lanka. The book first analyses the local NGO networks and human rights organisations, which, together, are challenging and contesting the state conception of security and constitute a new circle of power. The book then questions the recent emergence of 'good governance' as a dominant consideration in aid policy and development assistance. Here, it is shown that the new circle of power wants that there should be governance without government. The technicist and single-track approach that governments still operate and still be sovereign in a number of ways, but some of their authority would be relocated towards subnational collectivities has been questioned.

The book critically examines the concept of partnership that is increasingly invoked by multilateral agencies. Now, partnership is no longer a concept linking donor and recipient but rather linking between them all the different components of the society which receives assistance. In this, a dominant role for NGOs is seen. In so doing, donors are making sure that the constituency, which initially refused structural adjustments programmes, collaborates and that the existing social order prevails.

The last chapter presents an analysis of the relation between humanitarianism and state sovereignty with an in-depth examination of three international relief organisations. In this chapter it is argued that the formation of a global civil society founded on allegiance to human rights, which transcends state sovereignty and claims an ideological and territorial domain for itself, does not actually constitute a denial of sovereignty as a concept. These postnational formations are in a direction of claiming a greater share of sovereignty and they constitute rival sovereignties.

Thus, the recent feature is the emergence of new circles of power which are contesting and transforming the power and sovereignty of the state through various means. This goes against the theories of sovereignty, in which: i) the only relevant political actors were the state and individual; ii) stability was possible only when the competing authorities bowed to the state; and, iii) there must be a single source of impeachable law. It, therefore, appears that sovereignty as traditionally understood is no longer sacrosanct.

The book also makes another theoretical argument. The role and emergence of civil society (although consisting of only NGOs in this book) are justified on the grounds that it takes the side of the poor and checks the growth of the state and market. The book argues that it is not only the bureaucratic state apparatus that restricts the burgeoning of local cultures and political freedoms but also new transnational forces — sometimes collectively referred to as global civil society. The new circles of power, on the one hand, provide checks and balance to an oppressive or overdeveloped state. But, on the other hand, they are in effect capturing power in the local arena by promoting a decentering of power and by attempting to create prototypes of ideal states.

The relevant question is, therefore, whether the concept of civil society is a useful analytical tool to understand the realities in developing countries. Is it being imposed upon societies with a view to depoliticising them? The liberal thinkers brush aside such questions. But, the book argues that the depoliticising of society through the creation of a social sphere called civil society is not an unintended consequence but rather the most important aim of the new forces.

The book, thus, raises pertinent issues relating to NGOs and suggests that there is need to make a distinction between national and international NGOs,

and cautions that NGOs should not be looked at as a homogeneous lot. Further, the NGOs can indeed contribute to the developments, which are not in consonance with the theory and intentions of liberal thinkers. A reading of this volume is, therefore, a necessity for the donors and some government agencies which have unquestioned belief in the NGOs, and also for those who want to understand civil society in which NGOs are considered to be an important part.

Professor ***D. Rajasekhar***
Decentralisation and Development Unit
Institute for Social and Economic Change
Bangalore

Books Received

Thangaraju, M. (Ed.) *Land Reforms in India: Tamil Nadu: An Unpunished Task Vol. 9.* New Delhi: SAge Publications.

Reed, Darryl and Sanjay Mukherjee (Eds). (2004). *Corporate Governance Economics Reforms and Development - The Indian* *** . Oxford: Oxford University Press.

Chakravarti, Uma. *Gendering Caste: Through a Faminist Lqws.* Kolkatta: STREE.

Bhattacharya, Malini and Abhijit Sen. *Talking of Power: Early Writings of Bengali Women from the mid-19th Century to the Beginning of the 20th Century.* Kolkattak: STREE.

Dhagamwar, Vasudev, Subrata De and Nikhil Verma. *Industrial Development and Displacement: The People of Korba.*New Delhi: Sage Publications.

Wignaraju, Ponna and Susil Sirivardana (2004). *Pro-Poor Growth and Governance in South - Asia - Decentralisation and Participatory Development.* New Delhi: Sage Publications.

Hasbullah, S.H. and Barrie M. Morrison (2004). *Sri Lankan Society in an Era of Globalisation: Struggling to Create a New Social Order.* New Delhi: Sage Publications.

Kalirajan, Kaliappa and Shashank Bhide (2003). *A D***** Macroeconomatric Model for the Indian Economy.* England: Ashgate Publishing Limited.

Nathan, Dev, Govind Kelkar and Pierre Walker (Eds) (2004). *Globalisation and Indegenous Peoples in Asia: Changing the Local-Global Interface.* New Delhi: Sage Publications.

Rao, Mohan (2004). *From Population Control to Reproductive Health - Malthusian Arithmatic.* New Delhi: Sage Publications.

Printed and Published by Gopal K. Kadekodi, on behalf of the Institute for Social and Economic Change, Prof. V. K. R. V. Rao Avenue, Nagarabhavi P.O., Bangalore - 560 072, and Printed at Shreeniketan Graphic Impressions, #210, 2nd Main Road, Mahalakshmi Layout (Pura), Bangalore - 560 086.

Editor: Gopal K. Kadekodi.

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS

(Organ of the Indian Society of Agricultural Economics)

Vol. 59	**JULY – SEPTEMBER 2004**	**No. 3**

CONTENTS

WATERSHED DEVELOPMENT

FISHERIES

contd ... ...

LIVESTOCK ECONOMY

RAPPORTEURS' REPORTS

Annual Subscription Rates

Individual Membership Fee	:	Rs.300.00; $ 75.00
Institutional Subscription	:	Rs.600.00; $ 125.00

Please address correspondence to the Hon. Secretary & Treasurer, The Indian Society of Agricultural Economics, 46-48, Esplanade Mansions, M.G. Road, Mumbai-400 001 (India).

IASSI QUARTERLY

INDIAN ASSOCIATION OF SOCIAL SCIENCE INSTITUTIONS (IASSI)

(SOCIAL SCIENCE JOURNAL DEVOTED TO ADVANCEMENT OF SOCIETY THROUGH GREATER SOCIAL UNDERSTANDING)

VOL.22 **JANUARY – MARCH 2004** **NO. 2**

CONTENTS

SUBSCRIPTION RATES

For India and SAARC Countries, including postage: Rs.250/- for one year. Single copy Rs.70/-

For other countries: US $ 40 per year or equivalent, including postage by surface mail, and US $ 50 by airmail. Single copy US $ 15 by Airmail and US $ 12 by Surface mail.

Enquiries and Correspondence should be addressed to Member-Secretary, Indian Association of Social Science Institutions (IASSI) Room No.97, I.I.P.A Hostel, Indian Institute of Public Administration, Indraprastha Estate, New Delhi - 110 002.

(Tel: 2331-5284, 2335 6834, 2332 4581, Fax: 011-2331-5284; E-mail:stiassi@bol.net.in)

IASSI QUARTERLY

INDIAN ASSOCIATION OF SOCIAL SCIENCE INSTITUTIONS (IASSI)

(SOCIAL SCIENCE JOURNAL DEVOTED TO ADVANCEMENT OF SOCIETY THROUGH GREATER SOCIAL UNDERSTANDING)

VOL.22 OCTOBER – DECEMBER 2003 NO. 2

CONTENTS

SUBSCRIPTION RATES

For India and SAARC Countries, including postage: Rs.250/- for one year. Single copy Rs.70/-

For other countries: US $ 40 per year or equivalent, including postage by surface mail, and US $ 50 by airmail. Single copy US $ 15 by Airmail and US $ 12 by Surface mail.

Enquiries and Correspondence should be addressed to Member-Secretary, Indian Association of Social Science Institutions (IASSI) Room No.97, I.I.P.A Hostel, Indian Institute of Public Administration, Indraprastha Estate, New Delhi - 110 002.

(Tel: 2331-5284, 2335 6834, 2332 4581, Fax: 011-2331-5284; E-mail:stiassi@bol.net.in)

JOURNAL OF EDUCATIONAL PLANNING AND ADMINISTRATION

Editor : Jandhyala B. G. Tilak

Volume XVIII Number 3 July 2004

CONTENTS

Annual Subscription Rates

Individuals: Rs.150/US $ 60 Institutions: Rs.350/US $ 85

Advertisement Tariff

Full page: Rs.2000/ US $ 100 Half page: Rs.1100/US $ 55

National Institute of Educational Planning and Administration
17-B, Sri Aurobindo Marg, New Delhi 110016 (India)
Phone: 91-11-26863562, 26962120; Fax: 91-11-26853041, 26865180
E-mail: Editorial: *jepa@niepa.org;* Others: *publications@niepa.org*
Website: http://www.niepa.org

SUBSCRIPTION FORM

Please find enclosed a sum of Rs._____
(_____) by Cheque/Bank Draft No. _____
being the annual subscription for the JOURNAL OF SOCIAL AND ECONOMIC DEVELOPMENT (for two issues) for the year _____

Name_____
(Block Letters)

Address_____

_____

Pin Code_____

Date: Signature

Cheque/Bank Draft drawn in favour of the Registrar, Institute for Social and Economic Change, should be sent to the Editor, Journal of Social and Economic Development, Institute for Social and Economic Change, Prof. V. K. R. V. Rao Avenue, Nagarabhavi P.O., Bangalore 560 072, India. Outstation cheques will not be accepted.

SUBSCRIPTION RATES

SAARC Countries	Annual	:	Indian Rs.200 for Institutions Indian Rs.120 for Individuals
	Single	:	Indian Rs.100
Foreign (by Air Mail)	Annual	:	U S $50 for Institutions U S $25 for Individuals
	Single	:	U S $25

Guidelines for Contributors

- Only articles/research notes/book reviews not published and not under review for publication elsewhere should be sent; a declaration to this effect should accompany the manuscript.

- Manuscripts should be submitted in duplicate, in a maximum of 30 pages (of A-4 size), typed double-spaced in 12-point font (Times New Roman); 15 pages of similar specifications for research notes. These limits are inclusive of tables, figures and references. Once an article is accepted, the author is required to provide the final version both in hard copy and on a floppy disk (3.5") prepared in MS Word.

- Manuscripts should be accompanied by an abstract of less than 150 words. Illustrations, figures, maps, graphs, etc., should be submitted on separate sheets, and should be kept to the minimum.

- Single quotes should be used for all quotations; double quotes only within single quotes. Non-English words should be underlined or in italics; spellings of such terms should be consistent in the article.

- All notes should be numbered consecutively and appear as end notes; notes for tables should be marked with (*), @, #, etc., and should appear at the bottom of the table. Sources of data, if from other than one's own research, should be listed below each table.

- References should follow the author-date system, e.g., Rao (1974:78) or (Rao 1974:78). The list of references should be in alphabetical order, multiple references to the same author for the same date should be distinguished by suffixing a, b, c, etc., to the date. (e.g., Rao 1974a:78; 1974b:106–7). The style of referencing should be as follows:

Beteille, Andre (1996). Sociology and Common Sense. *Economic and Political Weekly,* 31(35–7):2361–5.

Govil, Kailash Chandra (1991). *Why do Farmers Plant Trees? — A Temporal and Spatial Analysis for Uttar Pradesh, India.* A Ph.D. Dissertation, Berkeley: University of California. Unpublished.

Rao, V. K. R. V. (1983). *India's National Income 1950–1980.* New Delhi: Sage.

Srinivas, M. N. (ed.) (1996). *Caste — Its Twentieth Century Avatar.* New Delhi: Viking, Penguin India.

- Authors should ensure that References have all the necessary details and are accurate in respect of the spellings of authors, volume and issue number of journals and page numbers cited.

- Material should be arranged under appropriate sub-headings and not section numbers.

Registration No: KARENG/1999/3287
ISSN 0972 – 5792

Journal of Social and Economic Development is published biannually, in January and July. Annual subscription (two issues) is as follows:

SAARC Countries	Annual	:	Indian Rs. 200 for Institutions Indian Rs. 120 for Individuals
	Single	:	Indian Rs. 100
Foreign (by Air Mail)	Annual	:	US $50 for Institutions US $25 for Individuals
	Single	:	US $25

Subscription Cheques/Bank Drafts drawn in favour of **The Registrar, Institute for Social and Economic Change**, should be sent to the Editor, Journal of Social and Economic Development, Institute for Social and Economic Change, Prof. V. K. R. V. Rao Avenue, Nagarabhavi P. O., Bangalore 560 072, India. Outstation cheques will not be accepted.

Website: www.isec.ac.in/journal

Printed and Published by Gopal K. Kadekodi, on behalf of the Institute for Social and Economic Change, Prof. V. K. R. V. Rao Avenue, Nagarabhavi P.O., Bangalore 560 072, and Printed at Shreeniketan Graphic Impressions, #210, 2nd Main Road, Mahalakshmi Layout (Pura), Bangalore - 560 086.

Editor: Gopal K. Kadekodi