

ECONOMIC REFORMS, CHARGING LIVELIHOODS AND MIGRATION

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Now a days economic growth is reflected from the economic reforms adopted in India about two decades ago. The free market principle along with development of infrastructure and information technology has brought multidimensional changes in the Indian economy. Now the question arises, whether these economic reforms have been able to bring any change in the poverty level and the rural livelihoods. How the trend of migration is related to the economic growth of the region. Using secondary data on sectoral indicators, poverty, employment in farm and non-farm sector for the pre- and post- reforms, the study compares the status of Indian states. Further, the correlates of rural out migration are determined and a double log linear model is constructed to determine the elasticity of rural out migration. The study finds that rural out migration is highly responsive to average annual growth rate of rural population, rural literacy rate and decadal growth rate of rural population. The study also finds that the rural out migration increases with increase in income. But there is a threshold limit, after which it starts decreasing, since the region becomes self sufficient in home production.

Key Words: *Agriculture, Farm and non-farm Employment, Growth Rates, Migration, Rural Poverty*

INTRODUCTION

During the past few decades, most of the countries of the world have adopted economic reforms. Under the free market principles, the governments are opening the economy of their countries to the global economy through trade and investment liberalization. Opening markets and improving transport and communication means that goods and services from the villages and the rural areas could reach the global markets more easily, but also that goods and services from the global market can reach the villages and the rural areas and compete with the local products. In order to encash the opportunity, it is necessary that the rural producers should be aware of the specific demand in urban centres and in other markets and to respond quickly to changes in demand. To do so, farmers require more and better information and channels of information, and a keen entrepreneurial attitude.

Free market principles promote the movement of not only capital to those places where the return is the highest, but also of labour to where it can be best productive and gain the best earnings. According to Gaile (1992), farmers with poor access to markets used to grow crops for home production only; but now by improving their access to markets, such farmers could become more productive.

The reductions in transportation cost and improvement in information and communication technology has brought manifold impacts in the rural economy. With access to information about market conditions, they can now negotiate higher prices with intermediaries and end-users. The migration is now becoming circular rather than a one time permanent move, with people constantly

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moving between places where the opportunities of the moment are the best. It has made feasible for some rural residents to work on a part time (daily, weekly, monthly or yearly) basis in nearby or distant urban areas, and to return at regular, or irregular intervals. The communication technology (radio, television, phones and mobiles) not only facilitates the sending of remittances, but also enables the family members to remain in touch. This not only reduces isolation and social insecurity but also supports the socio-economic development of the rural origin. Hence the migration has now become less socially disturbing. This should have an adverse effect on the existing poverty.

The free market economy is capable of developing the rural-urban linkages through increased mobility of capital and human resources and also through transfer of goods and services, but the strength of the link depends upon various factors like income, education and skill, awareness gender, assets and social class. India is experiencing multidimensional changes in its economic activities after the economic reforms both at the urban and rural levels.

The present study is an attempt to measure the extent to which the economic reforms have been able to reduce rural poverty. It also find the impact of economic reforms on livelihoods and migration especially the rural out migration. Most of the studies have pointed out that migration is restricted among the very poor people who lack sufficient assets, and it is high among the middle class.

METHODOLOGY

The study is based on the secondary sources of data. The impact of economic reforms is reflected from the GDP and sectoral growth rates. The past experiences have shown that the impact of any policy highly benefits the urban and rich people and less or negligibly benefits the rural and poor people, since the poor and rural people are less responsive to any change. The free market economy is an important tool for developing rural-urban linkages, it was thought that it would develop more livelihood options for the rural poor and improve their socio-economic condition. Therefore, both farm and non-farm sectors are taken into account for determining the rural livelihoods.

The improvement in transport and communication facilities increased the mobility of people for livelihood. Instead of taking the various streams of migration, the study concentrates on rural out -migration. Only those migrants are taken into consideration who are migrating from rural area due to economic reason. It includes both the male and female migrants. The data are obtained from Migration Tables, Census of India, 2001.

The simple technique of mean, coefficient of variation and ranking is used to determine the position of various states in terms of per capita NSDP, decadal growth rate of rural population, average annual growth rate of population, rural literacy rate and livestock per hectare of net sown area. On the basis of poverty rates, the states are classified as above average and below average and their situation is compared for pre and post reform periods.

In order to find the elasticity coefficient of rural out migration, the following double log regression model is built :

$$AAROM = \beta_0 + \beta_1 PCNSDP + \beta_2 DGRRP + \beta_3 AAGRP + \beta_4 RLIT + \beta_5 LISTNSA$$

where, PCNSDP refers to per capita net state domestic product,

DGRRP refers to decadal growth rate of rural population,

AAGRP refers to average annual growth rate of population,

RLIT refers to rural literacy rate and

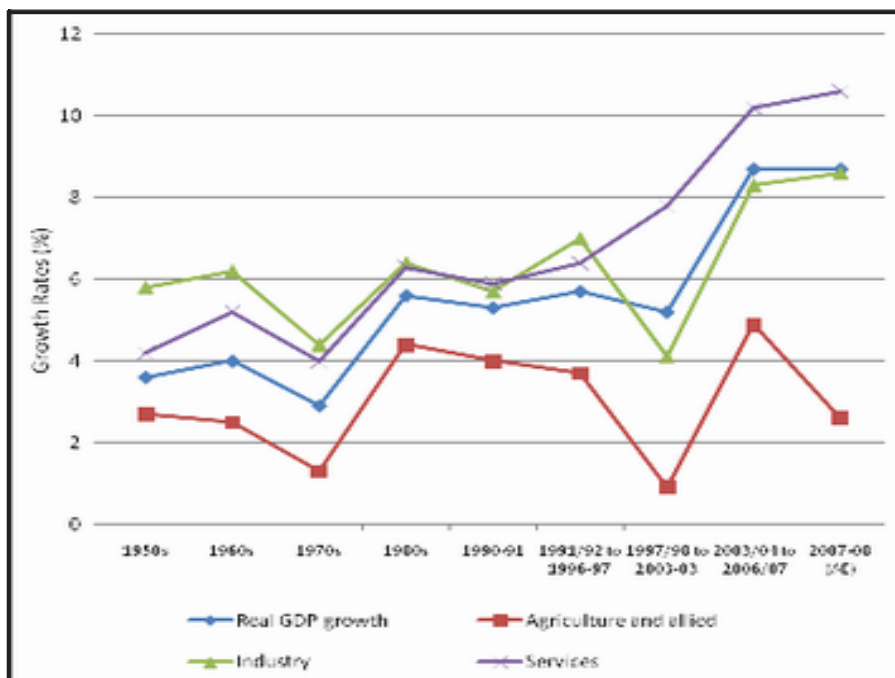
LISTNSA refers to livestock per hectare of net sown area.

All the variable in the above model are in the log form.

Economic Reforms and Sectoral Growth Rates

The sectoral growth rates in the pre and post reform period is shown in fig.-1. The Indian economy has witnessed near stagnation in real GDP till the late 1970s. After 1997/98, the real GDP is growing with an average annual growth rate of 7.53 percent. Agriculture growth has been subject to large variations over the decade. It has varied from 0.9 percent to 4.9 percent. The fluctuations in agriculture growth rate are very high in the post reform period. The industrial sector has almost remained stagnant till 1991-92. It has gained momentum after 1997-98 and crossed the growth rate of 8 percent after 2003-04. Until the 1990s, little care has been taken of the service sector. A glance at the growth record suggests that it is the continuing and consistent acceleration in growth in services over the decades that accounts for the continuous acceleration in overall GDP growth.

Fig.-1: Sectoral Growth Rates in Pre and Post Reform Periods



Source : Various issues of CSO, Government of India.

Rural economy is predominated by agriculture sector. In India, about 60 percent of the livelihoods still revolves around agriculture. A glance at table-1 show that during pre-reform period, the statewise rural poverty rates have increased in the states like Assam, Jharkhand, Bihar, Haryana, Himachal Pradesh and Uttarakhand. While during the post -reform period, the rural poverty rates have declined in all the states except Uttarakhand. The maximum decline could be observed in Assam followed by Himachal Pradesh, Jharkhand and Haryana.

Table:1, Statewise Poverty Rates (1987-2004)

NSS Region	1987	1993	% change	2004	% change
Andhra Pradesh	21	15.9 -5.1		10.5	-5.4
Assam	39.4	45.2	5.8	22.1	-23.1
Jharkhand	52.8	62.3	9.5	46.2	-16.1
Bihar	54.2	56.6	2.4	42.6	-14
Gujarat	28.3	22.2	-6.1	18.9	-3.3
Haryana	15.3	28.3	13	13.2	-15.1
Himachal Pradesh	16.7	30.4	13.7	10.5	-19.9
Karnataka	32.6	30.1	-2.5	20.7	-9.4
Kerala	29.3	25.4	-3.9	13.2	-12.2
Chattisgarh	46.7	44.4	-2.3	40.8	-3.6
Madhya Pradesh	40.1	39.2	-0.9	36.8	-2.4
Maharashtra	40.9	37.9	-3	29.6	-8.3
Orissa	58.7	49.8	-8.9	46.9	-2.9
Punjab	12.8	11.7	-1	1.9	-2.7
Rajasthan	33.3	26.4	-6.9	18.3	-8.1
Tamil Nadu	46.3	32.9	-13.4	23	-9.9
Uttarakhand	13.2	24.8	11.6	40.6	15.8
Uttar Pradesh	43.6	43.1	-0.5	33.3	-9.8
West Bengal	48.8	41.2	-7.6	28.4	-12.8
All-Rural	39.6	37.2	-2.4	28.4	-8.8

-ve sign indicates decrease in poverty and +ve sign indicates increase in poverty.

Source : NSSO, 62nd Round, MOSPIC.

Table -2 show that in 1987, about ten states had their rural poverty rates above average. It has decreased to eight in 2004. A closer view of the table indicates that Assam and Tamil Nadu have improved their economic condition and shifted to the below average poverty level. The situation of Uttarakhand has become worse as it has shifted to the below average rural poverty rate.

Table: 2, Statewise Comparison of Poverty Rates

Poverty Rates	1987	2004
Above Average	Assam,	West Bengal,
	Madhya Pradesh,	Maharashtra,
	Maharashtra,	Madhya Pradesh,
	Uttar Pradesh	Uttarakhand,
	Tamil Nadu,	Chattisgarh,
	Chattisgarh,	Bihar,
	West Bengal,	Jharkhand,
	Jharkhand,	Orissa
	Bihar,	
	Orissa	
Below Average	Punjab,	Punjab
	Uttarakhand,	Andhra Pradesh,
	Haryana ,	Himachal Pradesh,
	Himachal Pradesh,	Haryana,
	Andhra Pradesh,	Kerala,
	Gujarat,	Rajasthan,
	Kerala,	Gujarat,
	Karnataka,	Karnataka,
	Rajasthan	Tamil Nadu
		Uttar Pradesh

Source : Computed

Since agriculture is not able to provide the sustainable livelihoods, the credit of decrease in rural poverty rates goes to the non-farm sector. Table-3 show that in the post reform period, the non-farm sector is becoming important in providing employment to both rural and urban population. Though it was one of the important sector during 1970's and 1980's. But during the late 1980's and earlier 1990's, its importance declined in providing employment. It is only during the post reform period that non-farm sector is supporting livelihoods of most of the rural people.

Table: 3, All-India Farm and Non-farm Usual Principal and Subsidiary Status Employment Growth Rates, Rural and Urban, Specified Periods

Sector	Rural				
	1972-73 to 1983	1983 to 1987-88	1987-88 to 1993-94	1993-94 to 1999-00	1993-94 to 2004-05
Agriculture	1.59	0.12	2.32	0.20	0.76
Nonagriculture	4.54	5.79	1.41	2.34	3.63
All sectors	2.12	1.14	2.1	0.58	1.45
Urban					
Agriculture	3.91	-1.81	4.14	-3.39	0.03
Nonagriculture	4.12	3.70	3.33	2.98	3.51
All sectors	4.15	2.82	3.36	2.07	3.14

Source : Various Rounds of NSSO

Table-4 show that the average growth rate of non-farm employment is high as compared to the farm employment. The rural non-farm employment growth rate is higher than the urban non-farm employment growth rate. The coefficient of variation shows that the regional disparity in rural employment growth rate in non-farm sector is less (44.90 percent) as compared to the farm sector (156.74). The poor states like Bihar (including Jharkhand), Orissa and Madhya Pradesh (including Chattisgarh) are performing better in providing employment to the rural people. Besides the states where the agriculture sector has shown a negative employment growth rate, are covered by employment in non-farm sector. Such states are Andhra Pradesh, Himachal Pradesh, Jammu and Kashmir, Kerala, Orissa and Tamil Nadu.

Table: 4, Statewise Farm and Non-farm UPSS Employment Growth Rates, Rural and Urban, 1993-94 to 2004-05

State	Rural			Urban		
	All Sectors	Agriculture	Non-agriculture	All Sectors	Agriculture	Non-agriculture
Andhra Pradesh	0.73	-0.17	3.56	1.96	-2.52	2.64
Assam	2.48	1.87	4.54	3.65	8.15	3.48
Bihar+Jharkhand	3.44	2.40	7.82	3.07	6.26	2.55
Gujarat	1.96	1.78	2.61	3.52	1.19	3.70
Haryana	2.97	1.93	5.19	3.67	3.65	3.68
Himachal Pradesh	0.95	-0.28	4.70	4.93	-1.90	5.96
Jammu & Kashmir	1.27	-0.19	4.71	3.38	3.61	3.35
Karnataka	1.45	1.42	1.58	2.86	-3.54	3.76
Kerala	1.40	-1.22	3.99	0.52	-3.79	1.65
MP+ Chattisgarh	1.37	0.70	5.91	3.69	1.12	4.12
Maharashtra	1.37	1.08	2.61	3.53	0.74	3.77
Orissa	1.44	-0.03	6.07	2.32	1.12	2.53
Punjab	2.11	1.11	4.57	3.92	-0.20	4.26
Rajasthan	1.50	0.67	4.26	3.05	1.60	3.31
Tamil Nadu	-0.88	-1.52	0.49	3.84	0.32	4.24
UP+ Uttaranchal	2.02	1.19	4.76	3.62	0.43	4.09
West Bengal	1.56	1.43	1.77	2.30	-3.48	2.54
Std. Dev.	0.94	1.12	1.83	0.98	3.34	0.97
Mean	1.60	0.72	4.07	3.17	0.75	3.51
Coeff. Of Var.	59.10	156.74	44.90	31.03	445.14	27.69

Source : Compiled from various rounds of NSSO

Apart from non-farm employment, rural out migration is also one of the option for rural people. The rural out-migration (table-5) has increased in almost all the states except Himachal Pradesh. On an average, the rural out migration is very high in Orissa (37.83%) followed by Kerala, Uttar Pradesh, Tamil Nadu and Bihar.

Table: 5, Rural Out Migration in India

Persons	total	<1yr	1-4yr	5-9 yr	10-14 yr
Andhra Pradesh	24.92	44.19	31.10	24.55	23.00
Arunachal Pradesh	13.73	22.92	15.94	14.04	13.21
Assam	15.49	34.61	25.20	18.90	11.36
Bihar	32.43	56.98	43.08	34.80	27.33
Gujarat	20.40	29.78	21.06	19.17	20.97
Haryana	14.17	16.87	14.99	15.10	14.29
Himachal Pradesh	27.04	25.40	27.46	29.66	28.38
Jammu & Kashmir	18.12	40.44	24.75	18.43	13.04
Karnataka	24.87	43.17	29.94	24.08	22.40
Kerala	36.83	38.74	39.58	38.51	37.82
Madhya Pradesh	23.95	46.42	32.77	22.28	15.83
Maharashtra	18.45	33.50	20.70	18.66	16.76
Manipur	19.53	22.77	18.99	21.86	21.74
Meghalaya	15.78	18.38	15.87	17.10	16.91
Mizoram	4.14	14.63	1.55	19.02	25.73
Nagaland	7.25	20.65	10.56	9.50	6.02
Orissa	37.82	55.29	51.24	44.40	29.65
Punjab	18.59	25.41	19.22	16.93	19.38
Rajasthan	20.93	36.00	27.65	23.52	18.12
Sikkim	17.00	23.50	24.02	22.23	14.46
Tamil Nadu	32.48	48.65	38.61	33.60	30.84
Tripura	15.09	17.33	19.32	17.03	14.38
Uttar Pradesh	32.82	37.33	34.98	35.58	32.96
West Bengal	27.35	55.81	44.33	31.98	18.34

Source : Migration tables, Census of India, 2001.

Table-6 gives the picture of various correlates of rural out migration. These are ranked in table-7. These ranks are given in descending order, i.e. the highest value receives the lowest rank and the lowest value receives the highest rank. In table-7, the ranks of correlates of migration are arranged according to the rank of per capita NSDP.

Table: 6, Correlates of Migration

States	Per Capita NSDP 2004-05	Dec. grow of rural popu. (1991-2001)	Average annual growth rate of population, 1991-2001	Rural poverty (1999-20)	Rural literacy rate 2001	Livestock / hec of NSA
Andhra Pradesh	23153	13.60	1.31	11.05	50	4.76
Arunachal Pradesh	19724	16.00	2.35	40.04	50	7.66
Assam	13633	16.71	1.74	40.04	77	4.99
Bihar	9392	26.79	2.43	44.3	49	5.75
Gujarat	28355	17.18	2.05	13.17	67	2.25
Haryana	32712	20.63	2.5	8.27	65	2.51
Himachal Pradesh	27486	16.31	1.63	7.94	75	9.39
Jammu & Kashmir	16190	28.74	2.69	3.97	57	13.25
Karnataka	23945	12.04	1.6 17.	38	59	2.60
Kerala	27048	10.04	0.9	9.38	90	1.59
Madhya Pradesh	14571	19.81	2.06	37.06	56	2.49
Maharashtra	32170	15.14	2.2	23.72	69	2.11
Orissa	13601	13.82	1.49	48.01	58	4.04
Punjab	30701	12.32	1.82	6.35	64	2.03
Rajasthan	16212	27.46	2.53	13.74	49	2.82
Tamil Nadu	25965	-5.19	1.07	20.55	67	5.32
Uttar Pradesh	15564	23.62	1.79	31.22	54	3.61
West Bengal	22497	16.95	1.65	31.85	65	7.54

Source : Economic Survey, 2006-07, GOI.

Table: 7, Ranking of Correlates of Migration

Sates	Per Capita NSDP 2004-05	Annual average rural out migration	Dec. grow of rural popu. (1991-2001)	Average annual growth rate of population, 1991-2001	Rural poverty (1999-20)	Rural literacy rate 2001	Livestock /hec of NSA
Haryana	1	17	5	3	15	7.5	13
Maharashtra	2	14	12	6	8	4	16
Punjab	3	13	15	9	17	9	17
Gujarat	4	12	7	8	12	5.5	15
Himachal Pradesh	5	7	10	13	16	3.2	
Kerala	6	2	17	18	14	1	18
Tamil Nadu	7	4	18	17	9.5	5.6	
Karnataka	8	9	16	14	10	10	12
Andhra Pradesh	9	8	14	16	13	15.5	8
West Bengal	10	6	8	12	6	7.5	4
Arunachal Pradesh	11	18	11	5	3.5	15.5	3
Rajasthan	12	11	2	2	11	17.5	11
Jammu &							
Kashmir	13	15	1	1	18	12	1
Uttar Pradesh	14	3	4	10	7	14	10
Madhya Pradesh	15	10	6	7	5	13	14
Assam	16	16	9	11	3.5	2	7
Orissa	17	1	13	15	1	11	9
Bihar	18	5	3	4	2	17.5	5

Source : Computed

In table-7, there is a clear distinction for the highly developed states. These states are Haryana, Maharashtra, Punjab and Gujarat. They have poor rate of annual average rural out migration and also low average annual growth rate of population. Rural poverty is low except in Maharashtra. They have poor livestock assets, high literacy rate and poor to moderate decadal growth rate of population. The moderately developed states like Tamil Nadu, Karnataka, Andhra Pradesh and West Bengal have moderate level of rural out migration. They have moderate to low decadal growth rate of rural population and low average annual growth rate of population. These states have moderate level of poverty and moderate to rural literacy rate. The livestock asset varies from moderate to low Kerala is the exception as it has high rural out migration, and very highest rural literacy rate. Among the poor developed states, the rural out migration rate is found to vary from moderate to high. These states are Uttar Pradesh, Orissa and Bihar. Jammu and Kashmir, Assam, Arunachal Pradesh, Orissa and Bihar have high livestock asses and poor literacy rate.

In order to make the relationship more clear, rural out migration elasticity coefficients are obtained by building the the double log regression model. The results are shown it table – 8.

The regression results show that the elasticity coefficient of rural out migration with respect to per capita NSDP is -0.23 which is significant at 5 percent level of significance. This would mean that a one percent increase in per capita NSDP would decrease migration by 23 per cent. This is because with the increase in income, there is more development of infrastructure and communication facilities through which villager could sell their good in the urban market at higher prices. Besides, with the increase in income there is more possibility of investment in the agriculture sector and non-farm sectors. It would generate more livelihood option within the rural area. The elasticity coefficient of rural out migration with respect to decadal growth rate of rural population implies that a one percent increase in decadal growth rate of rural population would increase rural out migration by 31 percent. The decadal growth rate of rural population decreases the opportunities for employment in the rural

area. The elasticity coefficient of rural out migration with respect to average annual growth rate of population is negative and significant. This reveals that a one percent increase in average annual growth rate of population would decrease rural out migration by 116 percent, since the demand for rural farm and non-farm products would increase. The better transport and communication facility would facilitate the supply of goods to the other areas. The elasticity coefficient of rural out migration with respect to rural literacy is -0.35 which is significant. An increase in literacy by one percent would decrease the rural out migration by 35 percent. With the increase in education level, different avenues of non-farm employment could be developed within the rural area. They would be able to easily respond to the changing market conditions. The livestock asset is not found to have any significant relationship with rural out migration, though it is negative.

Table: 8, Regression Statistics

R Square 0.682808				
Adjusted R Square 0.569526				
Standard Error 0.0915				
Observations 20				
Dependent variable - AAROM				
Exp. Var.	Coefficients	Standard Error	t Stat	P-value
Intercept	2.952613	0.895238	3.298134	0.005282
PCNSDP	-0.23168	0.191305	-1.21103*	0.245932
DGRRP	0.311512	0.240654	1.294439*	0.216458
AAGRP	-1.16119	0.315724	-3.67787*	0.002484
RLIT	-0.35847	0.310022	-1.15627*	0.266921
LISTNSA	-0.03582	0.09011	-0.39753	0.696972

Source : Computed

CONCLUSION

The economic reforms followed by free marketing principles and improvement in transport and communication facilities has important role in expanding the livelihood options for the rural poor. The study finds that though there are wide fluctuations in agricultural growth rate, the rural poverty rates in the post reform period has declined in almost all the states except Uttarakhand. The increase in the employment growth rate with less disparity in the rural non-farm sector is providing livelihood to most of the rural poor. On the other hand, economic growth is also supporting rural out migration, since the development of transport and communication facilities is enabling the rural poor to search for better opportunities. With the help of double log linear regression model, the study finds a significant role of per capita net state domestic product, average annual growth rate of population and rural literacy rate in controlling rural out migration. The increase in per capita net state domestic product on the one hand supports investment in agriculture and on the other hand opens various new opportunities in the non-farm sector. It also enables investment in growth of infrastructure which eases the process of marketing of rural products.

An increase in average annual growth rate of population increases demand for rural products in the urban area. This supports livelihoods in the rural area. An increase in rural literacy rate enables the work force to shift from unproductive agriculture to more productive non-farm sector. Decadal growth rate of rural population is found to have a positive and significant impact on rural out migration.

The study suggests that more non-farm activities should be developed in the rural area. To make the rural people aware of the market, all the villages should be connected with transport and communication facilities. There is a need to educate the rural people so that they could become highly responsive to the changing conditions.

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