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Shining India? Economic Liberalization and Rural Poverty in the 1990s

by Anders Riel Müller and Raj Patel

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ACRONYMS

AIDWA	All India Democratic Women's Association
APCE	Average Per Capita Expenditure
APL	Above Poverty Line
BPL	Below Poverty Line
FCI	Food Corporation of India
GDP	Gross Domestic Product
HCR	Head Count Ratio
HYV	High Yielding Variety
IADP	Intensive Agriculture District Program
IEG	Institute for Economic Growth
IMF	International Monetary Fund
IRDP	Integrated Rural Development Programme
MSP	Minimum Support Price
NABARD	National Bank for Agriculture and Rural Development
NAS	National Account Statistics
NBA	Narmada Bachao Andolan
NSS	National Sample Survey
PDS	Public Distribution System
PPP	Purchasing Power Parity
R&D	Research and Development
RIDF	Rural Infrastructure Development Fund
RPW	Rural Public Works program
Rs	Rupees
SC	Scheduled Castes
SDP	State Domestic Product
SSP	Sardar Sarovar Project
ST	Scheduled Tribes
TPDS	Targeted Public Distribution System

MEASUREMENTS

Crore	1 crore = 10.000.000,00
Lakh	1 lakh = 100.000

EXECUTIVE SUMMARY

In its fifty five years of independence, India has waged a long battle against hunger and poverty. Two hundred years of colonial rule built a country incapable of meeting the basic needs of its own population while turning the economy into a conveyor belt for raw commodities destined for the manufacturing industries in Britain.

To remedy this situation, the policies adopted by the Indian government after Independence were a broad mix of state-led market-based policies, leaning towards heavy interventionism and high levels of economic protection for key domestic industries. This 'import substitution' model was unevenly implemented, and while some industries and sectors benefited, the government was never fully able to wean itself from the influence of powerful Indian elites and their vested interests. Over time, these elites, combined with international pressure, pulled the Indian economy towards an open market. This economic liberalization crept slowly into India's economy throughout the 1970s and 1980s. But in 1991, precipitated by high levels of debt, India officially committed to full-fledged neoliberal reforms when the Indian government signed onto World Bank and International Monetary Fund loans.

The two central components of these neoliberal policies have been the liberalization of India's private sector and a reform of the public sector. The claim advanced by key members of India's elites, and by the World Bank, was that the Indian economy needed to be set on a more sustainable path. More than a decade later, the Indian government claims vindication for its direction, with higher levels of income, reduced poverty, and a booming information technology sector--areas that have come under criticism abroad for its success in welcoming 'outsourced' jobs.

All is not as it appears, however. In India today, more than 250 million people still live below the official poverty line. Most of them live in rural areas, working on small plots of marginal lands or as laborers on larger farms. The public services meant to ensure a basic standard of welfare have been dismantled or rendered ineffectual, and the private sector has not reached out to those most in need of goods and services.

In this report, we peel back the myth of "Shining India" over the past ten years using the government's own data. We show that while some have benefited from India's new economic vision, for India's poorest, there has been very little to celebrate over the past decade.

Myth 1. The World Bank's policies led to unprecedented economic growth in the 1990s.

Facts: While the 1990s looked good on paper, when we tease the statistics apart, the 1990s weren't all that unprecedented. The average annual growth in per capita Gross Domestic Product (GDP) was 4.4 percent compared to 4.1 percent between 1985 and 1989. By the end of the 1990s, economic growth rates were similar to the average growth rates of the 1960s and 1970s. In other words, but for a fraction of a percentage, neoliberal policies didn't outperform the previous periods in recent Indian economic history.

Myth 2. A higher percentage of people were lifted out of poverty under the free market.
Facts: Official data show a drastic decline in poverty during the last half of the 1990s. The Indian government and the World Bank attribute this to the free market. But the fall in poverty owes much more to a change in the way that poverty data were collected and interpreted (see pp 7-10 in the report). There is now a broad consensus among independent researchers and academics that these numbers are inflated and the actual numbers are closer to half of the official statistics. This is corroborated by the increased levels of malnutrition observed over the 1990s. Poverty declined at no faster pace than in the 1980s and there are in fact indications of a deceleration in poverty reduction despite a 30 percent increase in per capita income.

Myth 3. India's rising economic tide has lifted all ships.
Facts: The biggest consequence of the new free market policies is acute inequality. The Gini index, a standard measure of income inequality, has risen from 30 to almost 38 from 1991 to 1997. Upon closer inspection, we see this is caused by a great deal of variation in economic growth among Indian states and between rural and urban areas. The poorest states experienced much lower rates of growth and poverty reduction than the middle income and high income states. 50 percent of the poor are now concentrated in Orissa, Madhya Pradesh, and Assam. To put this into perspective, the combined population of these states is the same as the population of Japan. In rural India, where the deepest poverty persists, things are worse. The rural-to-urban poverty gap has jumped from 1.1 to 1.4 over the 1990s.

Myth 4. The information technology boom in India will benefit the poor.
Facts: Both the World Bank and the Indian government are keen to play up the success of the information technology industry and its role as a path to a new era of prosperity. But information technology only contributes 2 percent of total GDP and employs fewer than one million people. More than 230 million people are employed in the agricultural sector. India's poor primarily live in rural areas, farming small plots of land or working as agricultural laborers. Moreover they are unlikely to benefit directly from the technology boom because the social and economic mechanisms for redistributing the gains of the information technology industry have been eroded by the introduction of regressive taxes and cuts in social welfare programs. Job creation in the urban information technology sector does little to create economic gains for India's rural poor.

Myth 5. The Green Revolution will save India from hunger once again.
Facts: The Green Revolution was a package of industrial technologies, such as chemical fertilizer and hybrid seed, designed to increase India's farm yields. Introduced in the 1970s, these technologies succeeded in increasing farm output in a handful of commodities. These technologies are being promoted by the government and aid agencies. But this revolution has bypassed most Indian farmers, who live in the poorer states and who are without access to large areas of land necessary to profit from these technologies.

The three-quarters of all farmers who cultivate one third of the total land mass, remain marginalized by the government. Small farmers produce 41 percent of the total grain and over half of India's total fruits and vegetables. They are more productive than the Green

Revolution farms even though they cultivate rain-fed lands using only human labor and animal traction.

The environmental cost of the Green Revolution is now becoming apparent in the Punjab and Haryana. There farms are threatened by sinking water tables, soil salination, and soil erosion caused by excessive use of chemicals and monocropping. The economic unsustainability is also evident, as prices on the chemical inputs such as fertilizer and pesticides are becoming increasingly high due to the government's elimination of input subsidies.

The Green Revolution is not the answer to India's hunger. Two hundred and thirty three million people are malnourished in India today and while small farms are important in preventing acute hunger, the problem remains one of distribution, not of production.

Myth 6. Trade liberalization will benefit farmers.
Facts: For India's richest farmers, trade liberalization has been a blessing. But the agriculture sector itself is in severe crisis. Agricultural growth was a disappointing 3.2 percent a year on average over the 1990s compared with 4.7 percent on average over the 1980s., This isn't healthy given the fact that 75 percent of the population depend on agriculture for their livelihoods. Liberalization has forced small farmers to compete in a global market where commodity prices have plummeted while the reduction of government subsidies has made farming more expensive. Government sector investment in agriculture registered a decline of 28.9 percent, leaving farmers without access to affordable loans and forcing them to turn to private lenders who charge significantly higher interest rates. Private banks only directed 10.8 percent of total credit to agriculture, well below the government required 18 percent. Subsequently, farmers have turned to contract farming for large national and international corporations, producing cash crops--cotton, potatoes and chilies--for US and European markets instead of food for India's people. While these contracts can provide farmers with higher income, they also come with higher risks and costs of production. In most contract farming situations, the farmer bears the entire financial risk in the event of drought and crop failure. Such events have left many farmers heavily indebted, driving thousands of them to suicide.

Myth 7. India's economic reform of public services target the poor more efficiently.
Facts: While the very poorest represent a higher percentage of people receiving government support, this has been achieved by lowering the threshold of poverty and cutting back funding for many poverty and development programs. For example, rural development expenditures as a share of GDP declined from 14 percent in the late 1980s to less than 6 percent of total GDP in 2000. Funding for irrigation, roads, and employment has decreased in almost all states. Without public investments in roads and irrigation, rural areas have been unable to attract private sector investments, which the World Bank and the Indian government claim should replace public investments and create jobs.

India's Public Distribution System (PDS) which distributes surplus food, has also been crippled by economic liberalization. Only a fraction of India's population is now eligible to receive subsidized food through the PDS and prices have increased drastically. Food distributed by the PDS declined by more than 20 percent in less than four years since the implementation of Targeted Public Distribution System. This has excluded millions of poor in the name of economic cost-efficiency. In 2001 millions of tons of rotting grain was thrown into the sea, while starvation deaths were reported in several states for the first time since the 1960s.

Myth 8. Economic reform has helped more Indians eat better.
Facts: Malnutrition has *increased* during the 1990s. The average calorie intake has declined especially among India's poorest. Today, 233 million Indians suffer from inadequate intake of calories and micro nutrients. Women and children sustain higher rates than men of anemia – a symptom of malnutrition. There has been virtually no improvement in these rates over the 1990s. Furthermore, the production of some of the most important staples has declined as agricultural land is increasingly used for export crops. During the 1990s, five million hectares were converted from food-grain production into cash crop production. Net availability of foodgrains per person plummeted to levels unheard of since the 1930s economic depression under British colonial rule.

Myth 9. Economic liberalization will lead to better economic opportunities for women.
Facts: While women experienced higher employment rates in the 1990s, the work done by women was most often in low wage jobs or the informal sector. Historically, women have been the backbone of the rural economy, but they are paid less, work longer, and do harder manual labor than men. This situation has been exacerbated under neoliberalism. Between 1991 and 2001, for example, the number of women in marginal jobs more than doubled from 25 million to 51 million.

Myth 10. These problems caused by economic liberalization are only temporary.
Facts: Rising inequality, exploitation, poverty, and environmental degradation have followed neoliberal reforms in every country that has adopted them to date. India is no different. The government seems to be more concerned with turning India into a leading global exporter and technology hub than resolving the massive poverty problems. Budget cuts for rural development programs and the public distribution system show that the political will to address poverty problems has disappeared, and without this political will, India's rural areas will continue to experience increased hardship.

Conclusion

The myth of 'Shining India' benefits many people, both inside and outside India. The World Bank, sponsors of this vision, are keen to endorse it, and U.S. politicians concerned with the inevitable economic consequences of trade liberalization are happy to paint India as the new home of American jobs. In this report, we've tried to set the record straight. While there has been growth in the information technology industry in India, this is largely a result of a deep government commitment to middle class education. It's true that there has been some reduction in the level of poverty over the past 20 years. This has not, however, been accelerated by neoliberalism. In fact, the policies since 1991 have hit the poor hardest, with levels of hunger under the Targeted Public distribution System and the introduction of free market system reforms to rural life.

Indian agriculture has always been a very unequal affair. Even before colonization, there was rampant inequality arising from the feudal structures of agriculture and regional differences. Under British rule many of these inequalities were further exacerbated through heavy taxation of even the smallest farmer. Despite half a century of independence, these inequalities are very much alive today, and getting worse. The arrival of the World Bank and International Monetary Fund strengthened the hand of those within the Indian government who believed both in the credo of export-oriented agriculture and in the power of pure market forces to 'lift all ships' out of poverty despite the lack of evidence that this has worked in the Indian case. We conclude that the absence of strong political leadership, the erosion of serious redistributive mechanisms, and the deepening exploitation of women in the promotion of neoliberal India all point to a deterioration in the situation of India's poorest.

Perhaps the greatest tragedy is that there is nothing inevitable about this state of affairs. India won its independence with a vision of a country in which all were able to feed themselves. The policies implemented under Nehru, and under Indira and Rajiv Gandhi, were far from perfect, and were in many ways crafted by elite pressure. Yet, as Mahatma Gandhi argued, "Economics that hurt the moral well-being of an individual or a nation are immoral." The cleaving of the Indian economy along lines of gender, sector, geography and caste is a symptom of this kind of economics, and it betrays the spirit of Indian independence. The gamut of social movements in India today that struggle to keep this spirit alive are faced with a daunting task. Yet it is vital that they succeed. The past ten years have hurt too many, and at too high a price, for the lessons of economic liberalization to be ignored.

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INTRODUCTION

In its fifty five years of independence, India has waged a long battle against hunger and poverty. Two hundred years of colonial rule built a country incapable of meeting the basic needs of its own population at the time of independence in 1947. The economy was a conveyor-belt for raw commodities destined for the manufacturing industries in Britain. To remedy this situation, the policies adopted by the Indian government over the successive years were a broad mix of state-led market-based policies, leaning towards heavy interventionism and high levels of economic protection for key domestic industry. This 'import substitution' model was implemented patchily, and while some industries and sectors benefited, the government was never fully able to wean itself from of the influence of powerful elites and their vested interests. Over time, domestic elites and international pressures started to pull the Indian economy towards a more open market. This economic liberalization crept slowly into India's economy throughout the 1970s and 1980s, but in 1991, precipitated by high levels of debt, India officially committed to full-fledged neoliberal reforms.

The two central components of these neoliberal policies have been the liberalization of India's private sector and a reform of the public sector. The claim advanced by key members of India's elites, and by the World Bank, was that the Indian economy needed to be set on a more sustainable path. More than a decade later, the Indian government claims that it has been vindicated, with higher levels of income, reduced poverty, and a booming information technology sector that has come under criticism abroad for its success in 'outsourcing' jobs.

All is not, however, as it appears. In this report we peel back the myth of 'Shining India' over the past ten years. In India today, more than 250 million people still live below the official poverty line, and most of them in rural areas, working on small plots of marginal lands or as laborers on larger farms in order to survive. The public services meant to ensure a basic standard of welfare have been dismantled or rendered ineffectual, and the private sector has not reached out to those most in need of goods and services. We show that while some have benefited from India's new economic vision, for India's poorest, there has been very little to celebrate over the past decade.

Our analysis of economic liberalization and poverty is structured into three main parts. The first investigates the claimed acceleration of economic growth and poverty reduction which the World Bank and the Indian government attribute to economic liberalization. We examine the official statistics used to support this claim, looking not only at the aggregate data, but also teasing apart the trends in economic growth across sectors and space with a particular focus on the economic performance of the poorest states and the agricultural sector. We examine poverty statistics in this way as well, with a particular attention to the changes in patterns of poverty between states, rural and urban areas, and gender.

In the second part of our analysis, we narrow our focus to agriculture, which has played a central role in India's development policies since independence and which continues to provide a livelihood for India's poorest. Agriculture has historically been protected by trade tariffs, supported by government subsidies, and given tax exemptions in order both to boost production and to support the livelihoods of those working the land. The performance of this sector under economic liberalization is particularly important to the problems of poverty and hunger. In order to access how changes in the agricultural sector have affected poverty and hunger levels in rural India, we pay special attention to the economic performance of agriculture, agricultural wages, and cropping patterns.

The third part of our analysis examines how economic liberalization has affected specific development policies such as rural development programs and food programs. These policies are important in and of themselves, but also provide us with a litmus test of the political will to address poverty and hunger. We investigate the impact of public budget reform on rural development programs which include funding for infrastructure improvements like roads, wells, power, and irrigation, which are not only important prerequisites for economic growth but which also provide vital off-season employment to millions of rural poor. India's Public Food Distribution System, which was set up to provide both producers and consumers fair prices, is a key area, as it has been the center of some of the most fierce battles between those who wish to see it disappear (including the World Bank) and those who wish to expand the system in order to feed India's more than 230 million undernourished citizens.

The final section will focus on India's most disadvantaged groups: Women and Dalits. Direct and indirect discrimination of these two groups have kept them at the bottom of India's social, economic, and political hierarchy. If economic liberalization is pro-poor then these groups should experience improved conditions of life. We pay special attention to the situation of women as they are consistently overlooked in the political debate regarding the pros and cons of economic liberalization in India. We ask in particular whether the 'opportunities' offered by liberalization might not, in fact, be more exploitative than beneficial.

It is our hope that this report will help not only describe the current situation of poverty and hunger in India after ten years of reforms but more importantly to expose the reader to the fact that the optimistic picture painted by the World Bank and the Indian government is based less on facts and more on a representation of Indian nationalism which benefits a few at the expense of the many.

PART I – INDIA AT A GLANCE

In 1947, the British ceded control of the areas which today form the modern states of Pakistan, Bangladesh, Sri Lanka, Bhutan, and India. Led by Jawaharlal Nehru, the new democratic government of India faced the immense task of reorganizing a country geared towards colonial economics by British rule. Colonialism cast a long shadow over the Indian economy. The agricultural and manufacturing sector had been shaped to meet the demands of British markets while leaving the country fundamentally incapable of meeting the basic needs of its own population.[2] Under British rule, the most fertile lands had been assigned to produce cotton, wheat, and other export products for which the industrial revolution in England was hungry. This compounded the problem of rural displacement, which had taken place as a result of Britain's application of “free market” policies, central to which was the harsh taxation of subsistence farmers. To be sure, the British left Indian agriculture in a precarious state.

In the effort to tackle these problems, post-independence India chose a path of state socialism, with a centrally planned industrialization policy aimed at input substitution in manufacturing and agriculture. With motivations similar to other countries in Asia and Latin America in the context of the Cold War, this was an attempt to encourage national industrial development by protecting domestic markets from foreign competition. While India did develop industrial infrastructure, its failure to meet international and, more importantly, domestic expectations became increasingly evident after the global recession of the 1970s. India still struggled with massive poverty and economic growth that failed to keep up with the increase in its population. By the early 1990s, increased domestic and international pressures finally led to full-fledged structural adjustment, and a process of economic liberalization.

The Republic of India consists of 28 states, 7 union territories, and the national capital territory of Delhi. The official head of state is the president who is elected for a five year term by an electoral college. Executive power is however centered with the Prime Minister and the council of Ministers who are appointed by the party or coalition of parties with a parliamentary majority. The parliament consists of the Upper House (*Rajya Sabha)* and the Lower House (*Lok Sabha*). The Council of Ministers is responsible to the Lok Sabha whose members are elected in national elections for five-year terms. The two major political parties in the Lok Sabha are the Indian National Congress and the Hindu nationalist Bharatiya Janata Party. Several other parties exist with some controlling state parliaments. The Indian National Congress has been the dominant party through most of the post-independence era but has in the past decade lost ground to caste and religious based parties. The rise of Hindutva – an intolerant Hindu nationalism – has accompanied some of the most extreme increases in inequality in Indian history, over the past decade.[3]

With a land area around one third the size of the U.S., India's population passed the one billion mark in the late 1990s. Rapid population growth has in recent years declined and the population growth rate is now at 1.5%. India is home to numerous ethnic and religious groups and thus a very heterogeneous country with 18 official languages and between 179 and 188 languages in total. The vast majority (82%) of Indians are Hindus, 12% are Muslim while Christians, Buddhists, and Sikhs are other significant religions. Population density in India is high with a national average of 284 persons per square kilometer while some states have a population density of more than 700 persons per square kilometer. Despite high population density almost 75% of the population remain rural. The most populous states are Uttar Pradesh with more than 166 million people followed by Maharashtra with 96 million people, including India's largest city, Mumbai (Bombay) with more than 12 million inhabitants. India has 24 cities with populations surpassing one million.

India is the world’s seventh largest economy. National GDP (PPP) was $2.664 trillion in 2002 while GDP per capita (PPP) was approximately $2600. Major industries include textiles, chemicals, food processing, steel, transportation equipment, cement, mining, petroleum, machinery, and software. The availability of a large qualified workforce has made the country particularly attractive to IT industries in the past decade. India however is still a predominantly rural and agriculturalist society. Agriculture accounts for approximately 25% of the country's GDP and more than 60% of the country's workforce is employed in the agricultural sector. Major agricultural products include rice, wheat, oilseed, cotton, jute, tea, sugarcane, and potatoes. Almost three quarters of the Indian population is still primarily dependent on agriculture and related activities. The agricultural sector is therefore of extreme importance to the majority of people of India despite the rise of more lucrative and higher profile urban-based industries.

Today approximately 75% of India's population remain dependent on agriculture, cultivating more than 1.8 million square kilometers of arable land, or about 55% of India's total land mass. The extent to which technology-intensive agricultural practices are utilized varies widely across geographic regions, stemming from uneven implementation due to climatic differences, history, political preferences, and social stratification. The north western states such Punjab and Haryana have the most developed irrigation infrastructure and highest degree of mechanization. Extension services and research institutions are also concentrated in these areas. In the southern and northeastern tropical and semiarid regions most farmers still rely primarily on manual labor and rainfall for cultivation. The Green Revolution initially increased yields but the economic, social, and environmental viability of the Green Revolution is now seriously contested. Loss of ecological diversity, depletion of soil nutrients and sinking water tables are some of the problems faced in the Punjab and Haryana.

PART II – ECONOMIC LIBERALIZATION AND POVERTY IN INDIA

While frequently heralded as the world's largest democracy, India has received a measure of criticism internationally and nationally for its economic performance from the 1950s to the end of the 1980s. Following the same strategy as many other developing nations in the post-war period, India attempted to spur growth and rapid industrialization through import-substitution.[4] Within this policy framework, the state played a central role in coordinating the different economic sectors through central economic planning and a mix of carrot-and-stick policies. Following independence, the economy initially grew

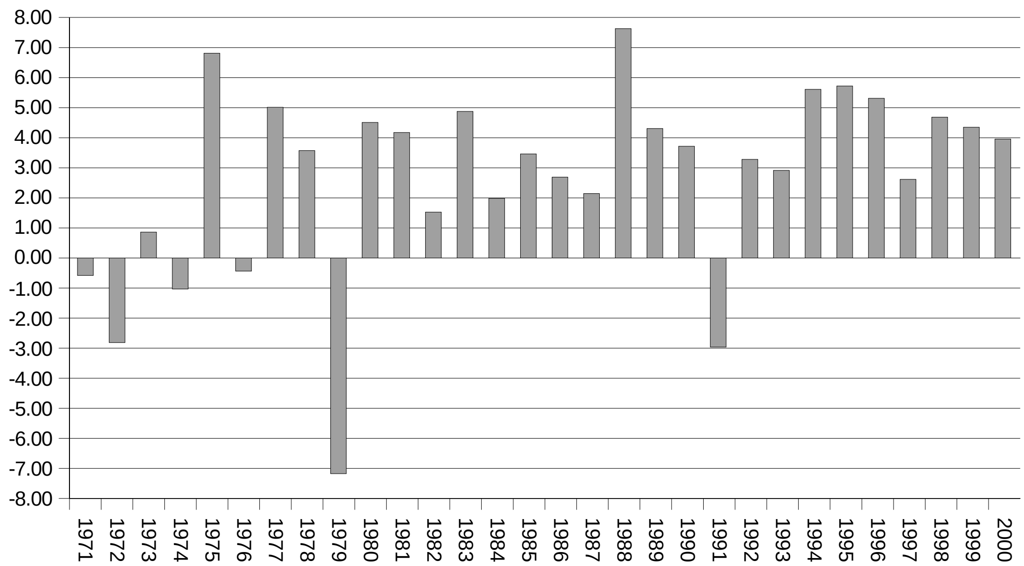

Figure 1 - Growth in GDP per Capita 1970-2000 (World Bank Estimates) Source: United Nations Statistical Division

slowly as economic gains were offset by a rapidly expanding population. Nonetheless, India's growth was similar to that of comparable countries such as Indonesia and China.[5] From 1952 to 1975 real GDP growth at factor cost was relatively constant around 2-3% a year with two peaks in the mid-1950s and mid 1960s. From 1975 India started to post higher GDP growth rates and per capita income has risen steadily (See Figure 1). Following the 'emergency period' of Indira Gandhi's rule, India has experienced significantly slower growth than Indonesia and China which, in 2000, posted per capita incomes twice as high as India despite being at the same economic level in 1970.

Throughout the 1970s, India, like many developing countries, borrowed heavily from the international financial community, following the trail of cheap petro-dollar loans. In order to finance this debt, the government borrowed further on international credit markets to sustain its often contradictory development policy, one that flipflopped between open markets and domestic support for industry. The Gulf War in 1991, the spike in oil prices and reduction of remittances from the Gulf also took a toll on India's financial solvency. The country's financial strain had, by 1991, caused 28% of export revenues to be directed toward servicing the US$63.40 billion foreign debt. Multilateral credit agencies pushed the Government of India to implement Structural Adjustment

Programs, as a prerequisite for a substantial IMF loan package in June 1991.[6] To some extent, this push was symbolic – the Government, under Manmohan Singh, the then-Finance Minister, was ready to jump towards these policies in any case. This date, however, provides a moment for dating the wholesale departure of the Indian government away from Nehruvian state socialism toward orthodox neoliberalism. The fundamental philosophy behind economic liberalization is this: the creation of a more investor-friendly and export-oriented economy will, in turn, lead to increased inflow of foreign investment and goods, prompting economic efficiency and thus higher growth rates. This growth will, in turn, reduce poverty. In the rest of this paper, we trace the steps of this argument to show that it is faulty, and thus to show that the crisis in Indian agriculture and the persistent poverty problems are unlikely to be resolved through the kinds of policy that rests on these tenets. It is important not to take the Bank's pronouncements at face value. Not only is it unclear that growth has been impressive, it is unclear that it has made a difference to India's poorest. The World Bank recognizes that India's economic performance is not as impressive as hoped for, but they attribute these facts primarily to domestic causes such as an increasing budget deficit caused by an increase in government spending and food subsidies.[7] What is of interest to us is primarily whether economic growth has had a significant impact for the hungry, and the rest of this paper will investigate how changes in economic policy have affected India's rural population of which more than 70% still lives in poverty.

Let's begin with some disputed facts. In its recent report "*India: Sustaining Reform, Reducing Poverty*" the World Bank claims that "*GDP growth accelerated, from only 3.5% a year in the 1960's and 1970's, to nearly 7% a year between 1992/93 and 1996/97.*"[8] This isn't quite as impressive as it sounds. The post-liberalization growth rates are, in fact, similar to those experienced by India during the 1980s. In fact, between 1985 and 1989 India's average growth rate was only 0.3% lower than during the period which the World Bank presents as a period of unprecedented growth.[9] Growth rates do appear impressive compared to the 1960s and 1970s, but not when compared to the

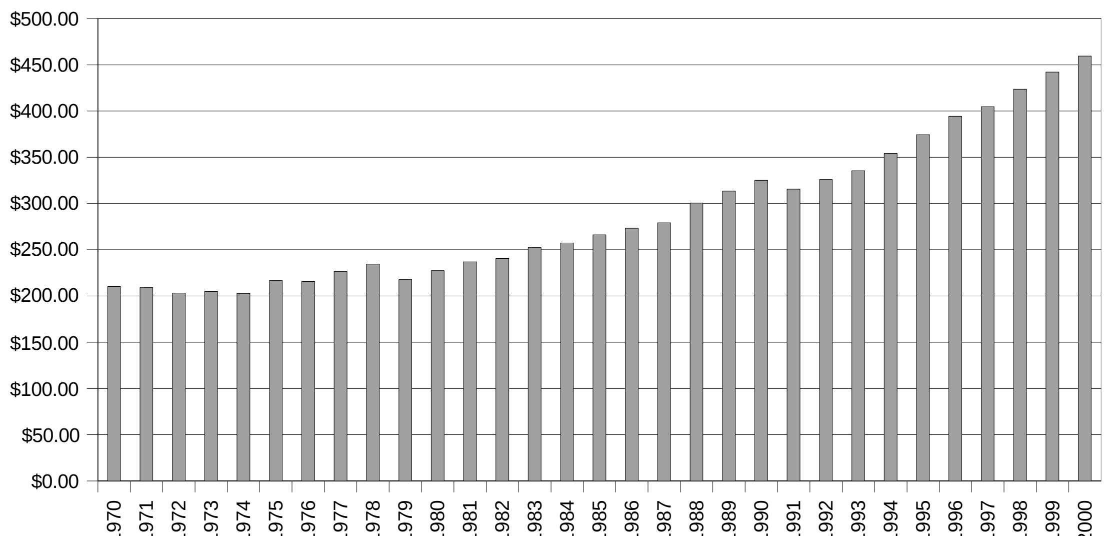

Figure 2 - GDP per Capita 1970-2000 GDP at market prices, GDP at market prices, constant 1995 US$ (World Bank estimates) Source: United Nations Statistical Division

1980s. Leaving out the decade of the 1980s in this comparison falsely inflates the impact of World Bank and IMF economic interventions in India in the 1990s. Further, economic growth has also slowed down significantly in the new millennium.[10] India's growth rate of 3.95% in 2000 was the lowest since 1991, and we have to go back to 1982 to find another year with a lower growth rate. In other words, it makes sense to think of the past twenty years of India's economic miracle as two separate phases. Through the 1980s, there was a period in which Washington consensus policies were eschewed in favor of a more endogenous-based industrial policy, which saw reasonable growth, and improved levels of welfare indicators[11]. The 1990s saw an embrace of neoliberal policies based on a World Bank models, one that emphasized economic openness. The link between GDP growth and poverty reduction is a cornerstone of the World Bank's economic policy, and a vital link in the chain of 'economic openness → growth → poverty reduction.' Simply stated, the World Bank expects that high GDP growth rates will lead to significant reductions in poverty (if proper institutions are instated).[12] This ideological line is clearly followed in the World Bank's most recent major report on India in which the World Bank states that economic growth was the most important factor for poverty reduction in the 1990s.[13]

Based on official estimates, the World Bank suggests that the percentage of the total population living under the national poverty line went from approximately 40% in 1987-88 to 26.8% in 1999-2000.[14] If these estimates are correct 75-80 million people were lifted out of poverty during the initial decade of economic liberalization, especially in the latter half of the 1990s when apparently 60 million escaped the poverty trap.[15] This should then be attributable, if the link between economic growth and poverty is true, to higher GDP per capita growth rates during the 1990s, which in turn should stem from economic liberalization.[16] What is interesting to observe however, is that poverty rates in fact went up slightly during the first half of the 1990s even though GDP per capita increased.[17] This is the first indication of a flaw in the World Bank's assumption regarding growth and poverty reduction. The official estimates furthermore indicate significant poverty reduction rates in the latter half of the 1990s but the average GDP per capita growth rate was not significantly higher than between 1991-1995. The claimed rapid increase in poverty reduction between 1995 and 2000 is also suspect, due to a change in official statistical methodology at that time. In fact many researchers argue that poverty reduction did not accelerate in the 1990s but remained in line with earlier trends.[18] The poverty rate did fall during the 1990s, but at no higher a rate than the 1980s – what changed was the way poverty was measured. It seems as if World Bank and Indian Government's claims over the benefits of liberalization are overstated.[19] In the next section, we take a close look at these claims.

ECONOMIC POVERTY IN THE 1990S

There has recently been lively debate around the subject of poverty rates in India catalyzed by a change in the methodology used in the national census. In a recent report from September 2003, the World Banks states that: "*...the share of the population living below the poverty line declined from nearly half in the early 1980s, to a little over a quarter in 1999/2000.*"[20] The World Bank further reports that these impressive poverty reduction rates were driven by a doubling of per capita income through the 1980s and

1990s and that poverty was reduced by almost 10% during the latter half of the 1990s. There are several significant concerns about this presentation of growth and poverty by the World Bank because they disregard important methodological changes in the way that official poverty rates are estimated. The most widely used measurement for poverty in India is called the "headcount ratio" (HCR), which measures the proportion of the population that falls below India's national poverty line.[21] HCR is based on National Sample Survey (NSS) Organization data, and calculated by the Planning Commission, in a series of "rounds" every five years.[22] According to these official numbers, poverty has fallen by almost 10% during the latter half of the 1990s from 36% to 26%. By comparison, this reduction over a 6 year period is similar to that over the 10 year period between 1983/84 and 1993/94 (See Figure 3).[23] The drastic reduction in poverty between the 1993/94 and 1999/00 surveys has raised the eyebrows of commentators. In particular, scrutiny has been directed toward a change in the methodology used to collect sample data between the 1993/94 and 1999/00 national surveys. In between these two major surveys the NSS experimented with a number of different methodologies concerning recall methods during the "thin rounds" (so called because they use smaller samples than the larger 5 year surveys). Sample households were given questionnaires with different recall-periods depending on the type of goods, a recall period being the period of time over which survey respondents were asked to recall their expenditure. Food for example had a 7 day recall period while some non-food, low-frequency items were given a recall period of 365 days.[24] The NSS had relied on 30 day recall questionnaires in earlier surveys for all types of goods. For the 1999/00 NSS survey, households were given questionnaires with both types of recall periods thus combining data with two different methodologies. As anyone who's been surprised by a credit card bill can attest, people tend to underestimate their expenditure the further back in time they are asked to remember. This can be compensated for by equalizing the expenditure periods, but if the period it too short, large one-off expenditures may not fall within them – hence the motivation for having different periods. Yet critics argue, rightly, that this change in survey format makes the results incomparable to earlier surveys and questions the validity of the drastic poverty reductions presented by the Planning Commission and the World Bank.[25]

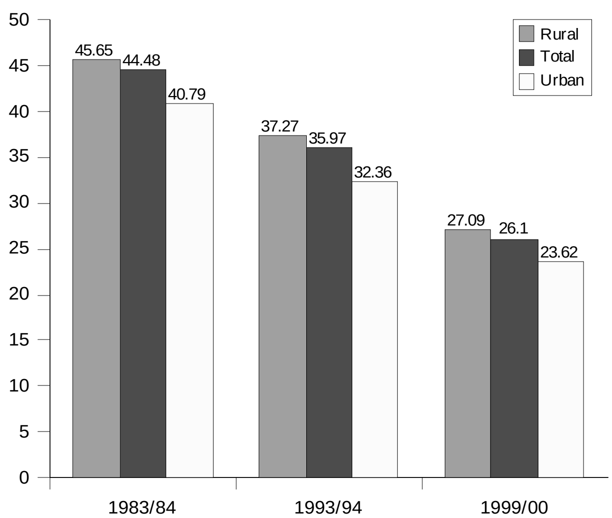

Figure 3 - Percentage of Population Falling Below the National Poverty Line NSS Surveys (Source: Planning Commission of India 2001)

As a result, many researchers have tried to recalculate poverty rates using different methodologies in order to make them compatible with earlier survey results. The results from these reevaluations of the NSS data do not point clearly in any direction, but there are nevertheless some valuable indications of how poverty reduction has performed in the 1990s compared to earlier periods. Sanduram and Tendulkar (2001) found, by aligning National Account Statistics (NAS) with the NSS survey, that the headcount ratio, in fact, was *lower* than reported in the NSS survey. They argue further that the NSS Headcount Ratio has historically overstated poverty in India. But according to their calculations poverty had been reduced by approximately 7% from 1993 to 1994 and not almost 10% as stated in the NSS survey.[26] In other words, even allowing that poverty in India is lower than previously thought, increased economic growth rates have not reduced the rate of poverty reduction as sharply as the World Bank claims. Sanduram and Tendulkar are not, however, the only voices in this debate. Others argue that poverty reduction rates remained essentially untouched by economic liberalization. Deaton and Dreze (2002) estimate that poverty in 1999/00 was at 26.8%—only slightly higher than the NSS survey, but conclude that: "*Poverty decline has been fairly evenly spread between the two sub-periods (before and after 1993-94), in contrast with the pattern of 'acceleration' in the second sub-period associated with the official estimates.*"[27] and that "*There is, at any rate, no obvious pattern of 'acceleration' or 'slowdown…'*"[28] Kijima and Lanjouw (2003), in a study by the World Bank, come to the same conclusions using a different methodology. They conclude that: "*Whether the 1990s should be viewed as a period during which poverty reduction accelerated remains, in our view, debatable.*"[29] Another significant study performed by Datt and Ravaillion (2002) conclude that: "*...the question of acceleration of poverty reduction in this decade remains contentious.*"[30] The common thread in the findings from economists generally supportive of, or indeed employed by, the World Bank is a failure to find any acceleration of poverty reduction during the 1990s compared to the 1980s. This indicates that despite the overall per capita income increase of 30%, poverty reduction has not followed the pace of economic growth in the 1990s. Further, there are indications of increasing rural distress that contradict the story of poverty reduction put forth by the World Bank. Suicides among desperate indebted farmers have become commonplace in Andra Pradesh, Karnataka, and Punjab, a sobering phenomenon we address below in detail. Likewise, we will later discuss the persistent malnutrition in rural areas.

The NSS data, based on per-capita expenditures, may not reflect the concurrent burden of increasing rural indebtedness. According to one study in Punjab, approximately 90% of farmers had taken short-term loans to carry out agricultural operations, at interest rates of 24% to 36%. Farmers are also borrowing for non-income yielding purposes, such as for weddings or other social events.] The debt burden incurred through such significant borrowing, though not reflected in a survey of per-capita expenditures, is reflected in the weight of poverty on rural farmers. This is a strong reason for thinking that, in fact, the increased income data is deeply out of joint with any measure of welfare: the reason that income levels are up are simply that people are paying off high levels of debt.

The World Bank itself provides us with some interesting data to help understand why its philosophy didn't fly as high as it intended in India. Explaining the lack of accelerated poverty reduction Ravaillion and Datt (2002) have calculated the elasticity of the incidence of poverty with respect to net domestic product per capita and private consumption per capita for the entire period back to the 1960s. This is a measure of the responsiveness of poverty to an increase in domestic growth – in other words, they try to answer the question "if there's a dollar of economic growth in India, does that mean people get to buy more, and if so how much?" They find that economic growth "*typically* *reduced poverty*"[31] in the period prior to 1991. They then go on to say that this correlation during the 1990s is debatable. They compare recent data on economic growth and poverty reduction, adjusted for the changes in survey format, with similar data from 1960 to 1993. If the explanatory variables between economic growth and poverty reduction from previous periods were to continue into the 1990s poverty reduction should have happened at an accelerated rate of 1.3 percentage points per year in the 1990s compared to a historical average of 0.65 percentage points per year. The 1990s however, only managed to reduce poverty by 0.8 percentage points a year.[32]

Why has poverty reduction not accelerated in the 1990s despite slightly higher economic growth rates? To understand the pattern of growth it is necessary to ask *where and for whom* economic growth and poverty reduction occurred. In the next section, we start to tease apart these questions at a sub-national level.

ECONOMIC GROWTH AND POVERTY: STATE-LEVEL INDICATORS

Inter-state inequalities are not new to India. At the end of the colonial period, there were wide disparities between states, and the Indian government amplified these by unevenly focusing development efforts. The federal government, however, has also historically attempted to rebalance economic growth by transferring federal tax revenues to poorer states and regions as well as providing incentives for industrial development in states in which there was comparatively little.[33] The state, in other words, provided a mechanism for some redistribution between rich and poor states as a part of its development strategy and social contract with the Indian people. It is our argument that these redistributive mechanisms have been eroded under neo-liberalism, and the historical commitment to India's poor abandoned. The existence of an inter-state redistributive system was essential to the close correlation between aggregate growth and poverty reduction prior to 1991, as found by Ravaillion and Datt. As a result, economic growth and poverty reduction have performed more unequally across states during the 1990s compared to the 1980s. To see this, we first examine inter-state comparisons of economic growth. Figure 4 shows the growth of per capita state domestic product (SDP) for the major states in 1980/81, 1990/91, and 1999/00 respectively. What emerges is the first indication of growing economic inequality between the wealthier

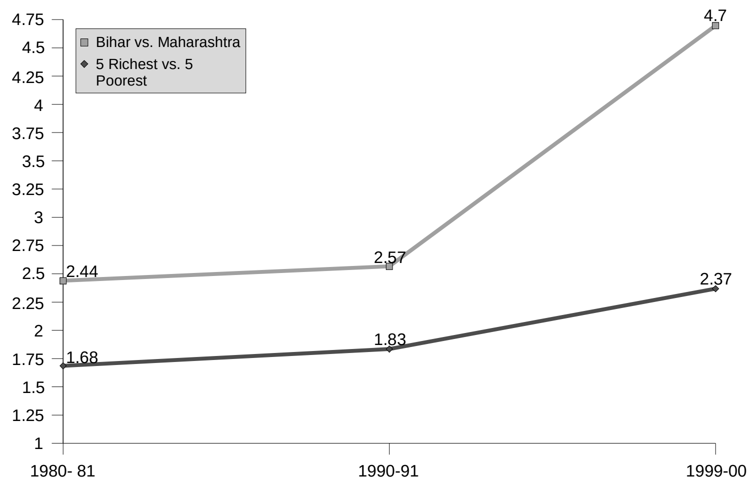

Figure 4 – Maharashtra Per Capita SDP as multiple of Bihar Per Capita SDP (Source: Ministry of Finance and Business Affairs – Government of India)

states such as Punjab and Maharashtra on one hand, and Orissa and Bihar on the other. A closer look at the relative difference between Maharashtra and Bihar, one of the highest and lowest per capita SDP respectively, shows that inequality in absolute terms between these two states have risen dramatically during the 1990s (See Figure 5). If we compare the gap as an average between the five poorest and five richest states, the rise has been less drastic, but remains significantly higher than the previous decade. There are as such indications of an increasing economic gap in per capita SDP between the richest and poorest states during the 1990s compared to earlier periods.

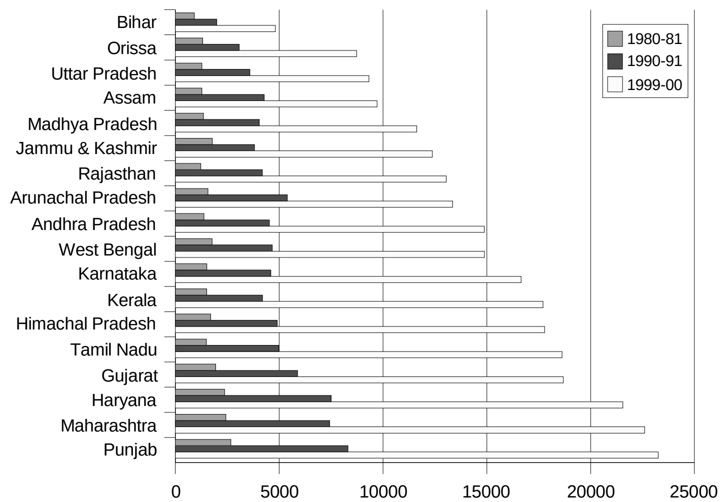

Figure 5 - Per Capita Net State Domestic Product at current prices 1980-2000 (Source: Ministry of Finance and Business Affairs – Government of India)

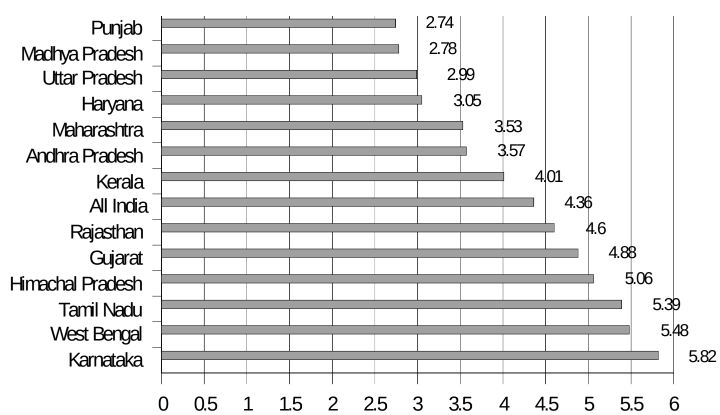

Figure 6 - Annual Growth Rate of Per Capita SDP, 1993-94 to 1999-2000 (Source: Deaton & Dreze 2002)

If we look at actual growth in per capita SDP across states, it is confirmed that low income states such as Assam, Bihar, and Orissa are falling behind (See Figure 6). Bihar and Orissa have had meager annual growth rates of 2-2.3%, and Assam was doing even worse with an annual growth rate of only 0.58%. Also, otherwise high income states such as Punjab and Haryana have experienced slower per capita SDP growth compared to the middle income states such as Tamil Nadu and Karnataka. Of central interest is that the five lowest income states have experienced annual per capita SDP growth rates consistently lower than the national average. Higher aggregate growth rates in India have been driven by a few states rather than by broad based economic growth. Without the mechanisms for redistribution, there is no reason to think that the rising tide need lift all ships – indeed, there is every reason to see the rising tide not lifting, but drowning.

It could be the case, of course, that states with low growth rates have found ways of curbing poverty by "making do with less" in the spirit of the retreat of the welfare state. This has not, however, happened. Official survey results give some initial data with which to analyze the inter-state performance in poverty reduction. According to this official data, India has managed to reduce poverty by almost 10% between 1993-94 and 1999-00. While this figure is suspect, as discussed earlier, it can nonetheless serve as a benchmark for inter-state comparisons. Figure 7 clearly shows that inter-state poverty reduction performance varies widely. Many of the states with high poverty incidence at the beginning of the period have not managed to reduce poverty at the same rate as the wealthier states. While Punjab—one of India's wealthiest states—has reduced its number of poor by 50%, Orissa, Madya Pradesh, and Assam—three of India's poorest states—all reduced poverty by less than 10%.

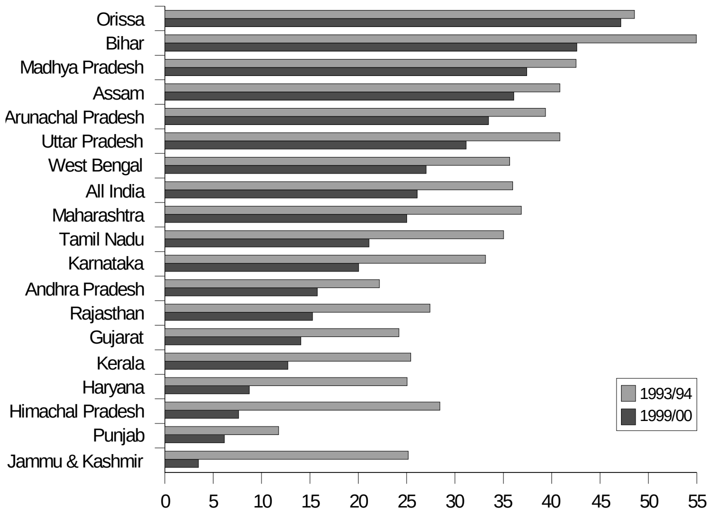

Figure 7 - Poverty Headcount Ratios By State From 1993/94 and 1999/2000 (Source: National Human Development Report India 2001)

That initially poor states should perform the worst is a worrisome trend, and the situation becomes more troubling yet when compared to pre-liberalisation trends. Orissa, Madhya Pradesh, Kerala, West Bengal, and Tamil Nadu have not been able to keep their momentum from the 1980s. Of the poorest states, improvements are only visible in Bihar, but even this number is somewhat deceptive. The dramatic reduction is, according to Deaton & Dreze (2002), related to a relatively large proportion of households just below the poverty line at the beginning of the latest census period. It therefore took little to lift a large number of households above the poverty line during this period.[34] Overall, poverty reduction, with the exception of Bihar, has happened at a slower pace in poorer states relative to the middle and high income states, and moreover some of these low income states experienced a slowdown in poverty reduction in the 1990s.

The situation in Orissa is of particular concern. In the 1980s, Orissa had one of the highest poverty reduction rates of any state, but this trend has been put to an almost full stop in the 1990s. The end result is that the majority of the poor are increasingly concentrated in a few states. Fifty four percent of India's 267 million poor are now living in Uttar Pradesh, Bihar, Orissa, and Madhya Pradesh. The discussion of state-level disparities in economic growth and poverty reduction indicates that the poorest states and their comparatively large populations have become increasingly marginalized during the first decade of neo-liberal reforms. The phenomenon of state-level pockets of poverty is one that is repeated at a smaller scale, within states. It is to the rural-urban disparities in economic growth and poverty reduction which we now turn.

ECONOMIC GROWTH AND POVERTY: URBAN VS. RURAL INDICATORS

Rural India is the home to the majority of the country's total population as well as the majority of the country's impoverished. More than 70% of its citizens live rurally, and migration toward urban centers remains low.[35] About 75% of those who fall below the poverty line live in rural areas, and 54% of the overall rural population lives in poverty.[36] In some states more than 70% of the rural population is below the poverty line. As such a large and vulnerable sector of Indian society, it is important to examine the effects of economic liberalization on the rural population.

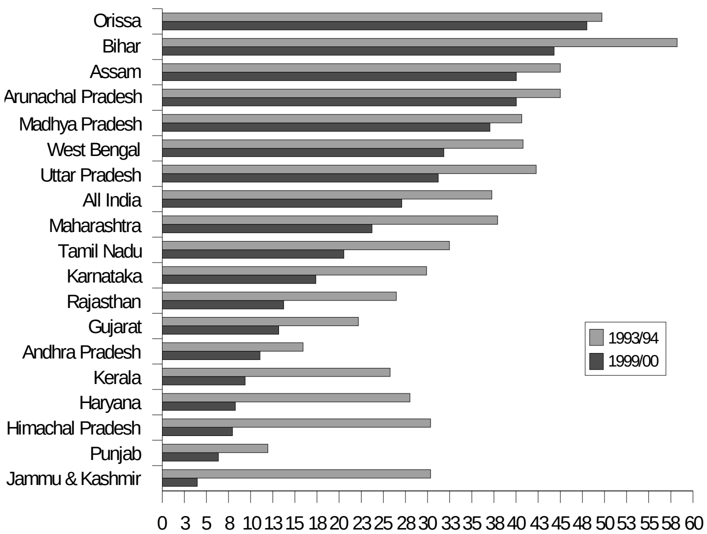

Figure 8 - Rural Poverty Headcount Ratio by State in 1993/94 and 1999/00 (Source: National Human Development report 2001)

The official Head Count Ratio (HCR) indicates that rural poverty on the aggregate level declined at a slightly higher rate than urban poverty in the period from 1993/94 to 1999/00 (See Figure 9), indicating that poverty reduction was indeed happening in the countryside right along with booming urban areas.

But these aggregate numbers are questionable for a variety of reasons. As with many aggregate figures, the poverty HCR hides the significant inter-state disparities in rural poverty reduction (See Figure 8). Of the five states with the largest number of poor, Orissa, Assam, and Madya Pradesh have fared poorly, while Bihar and Uttar Pradesh have done somewhat better, close to the national average (but as discussed earlier this can be associated with the fairly large number of people living just below the poverty line at the beginning of the survey period in these two states). On the other hand, rural poverty reduction has been high in wealthier states such as Kerala, Haryana, Himachal Pradesh, and Jammu & Kashmir. The official statistics that rural poverty is declining more rapidly than urban poverty have been questioned. According to findings by Ravaillion and Datt, the rural-to-urban poverty incidence ratio, which has remained relatively constant near 1.1 to 1.2

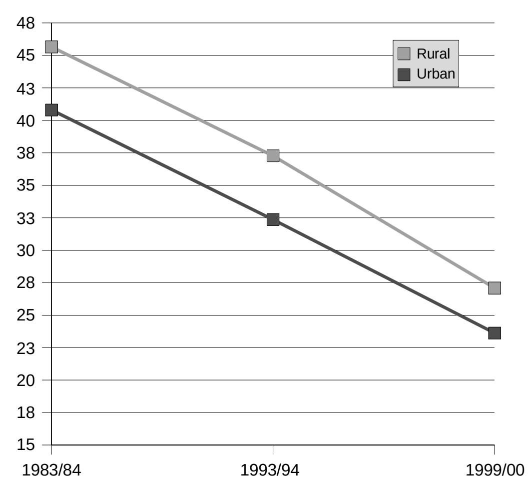

Figure 9 - Trends in Poverty Headcount Ratios Rural/Urban 1983 – 2000 (Source: National Human Development Report India 2001)

between 1960 and 1990, jumped to 1.4 in 2000.[37] This finding that rural poverty has increased relative to urban poverty recently directly contradicts the official poverty HCR figure.

There is further evidence to support Ravaillion and Datt's finding, especially from Deaton and Dreze's examination of Average Per Capita Expenditure (APCE) as an indicator of rural poverty. This measure enables us to investigate the relative differences in rural to urban economic growth, as it can normally be correlated to per capita income. It is evident that rural expenditure growth has been slower in most of India's major states compared to urban expenditure growth in the 1990s (Figure 10). In several states urban APCE has in fact vaulted ahead of rural ACPE by over 100%. The rural population in most states experienced slower growth in APCE than their urban counterparts. It is possible that rural poverty has gone down during the 1990s, but not at the levels published by the World Bank and not in the states that are particularly impoverished. Neither the official nor adjusted poverty ratios show encouraging changes in the geographical patterns of economic growth and poverty reduction. The rural poor are cut off from the booming sectors of India's economy.

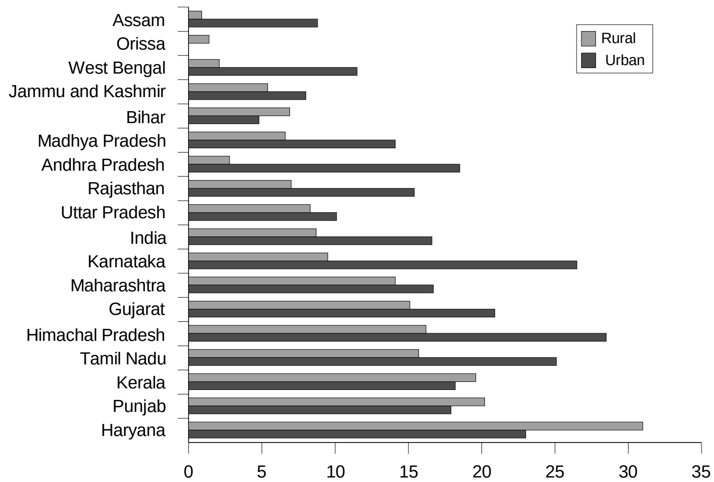

Figure 10 - Six-Year Growth of APCE, 1993/94 – 1999/00 (Source: Deaton & Dreze 2002)

Before we turn to an analysis of what has happened in rural India during economic liberalization, it is necessary to give a brief overview of who the rural poor are and where they live. The majority of the rural poor (and thus the majority of India's poor) are marginal farmers and landless laborers. Table 1 gives an overview of the composition of the rural poor according to livelihood category. It reveals that the majority of the rural poor are employed in the agricultural sector either as self-employed farmers or agricultural laborers.

Livelihood category	Scheduled Tribe (ST)	Scheduled Caste (SC)	Others	All households in Livelihood category
Self-employed households in Agriculture	5.62	4.76	22.49	32.87
Agricultural labour households	6.49	16.19	18.91	41.59
Self-employed households in non-agriculture	0.75	2.38	7.70	10.83
Other rural labour households	1.45	2.40	3.98	7.83
Other (residual households)	0.73	1.46	4.69	6.88
All households	15.04	27.19	57.77	100.00

Table 1 - Livelihood Characteristics of the Rural Poor 1993-94 in % (Source: Gill 2003; Chandrasekhar 2003)

There is also a significant geographic concentration of rural poverty. Two regions in particular are subject to very high rates of rural poverty: Eastern India and Central Tribal India. These areas include East Uttar Pradesh, North Bihar, North Bengal, Coastal Orissa, Assam, Tripura, Bundelkhand, Jharkand, Vidarbha, Madya Pradesh, Rajahstan, Western Orissa, and Telangana.[38]

An overwhelming proportion of the rural poor belong to the scheduled tribes/castes, also referred to as the Dalit, and female-headed households. The Dalits, also known as untouchables or scheduled tribes, are the lowest caste in the India's highly stratified Hindu caste system, which divides the population according to occupation and purity. Officially, the caste system is banned by the constitution along with any sort of discrimination. In reality the Dalits are still being discriminated against and atrocities are widespread. Rapes and lynchings and other sorts of physical assaults are some of the dangers facing Dalits communities.[39] Political and economic discrimination is also widespread. An investigation of the effects of economic liberalization on this group is of particular importance since 25% of India's population fall into this category. They make up a major part of the poor, the rural, and the landless. Forty nine percent of Dalits fall below the poverty line compared to approximately 39% for the overall population. They constitute 25% of the rural population yet they account for 42% of the poor.[40] These are the factual conditions of Dalit life despite formal protection given to them by the Constitution of India.[41]

Throughout the poor, whether Dalit or otherwise, the effects of traditional and modern sexism are rampant. Women in general and rural women in particular are subject to poorer access to land, education, health care and food than the male population, while working harder and earning less. For example, while women traditionally have had the right to the use of communal land, entitlements to land during post-independence land reforms were given only to men.[42] Rural women have significantly lower literacy rates than the national average. The rural female adult literacy rate was only 31.65% in 1995-96, approximately half that of their rural male counterparts.[43] Women and girls are often deprived of medical care. A study in Punjab showed that medical care expenditures were

2.3 times higher for boys than girls.[44] Rural women also suffer from some of the highest rates of maternal mortality in the world. This in turn is linked to the poor nutritional status of women in India. 53.9% of rural women suffer from anemia with rates much higher in certain rural areas.[45] Despite this obvious neglect of women's welfare, they nevertheless are the backbone of the rural economy. In India 89.7% of female labor is employed in the agricultural sector, thus comprising more than 65% of the total agricultural labor force[46] and dominate certain sectors such as dairy production where women account for 93% of total employment.[47] In fact, women's overall contribution to farm production is estimated at 55% - 66% of total labor. Women are often relegated to the most manual and arduous tasks, while men dominate tasks requiring machinery. Coonrod (1998) describes the disparity between male and female tasks:

> *"Not only do women perform more tasks, their work is also more arduous than that undertaken by men. Both transplantation and weeding require women to spend the whole day and work in muddy soil with their hands. Moreover, they work the entire day under the intensely hot sun while men's work, such as ploughing and watering the fields, is invariably carried out early in the morning before the sun gets too hot. [Noted feminist Maria] Mies argues that because women's work, unlike men's, does not involve implements and is based largely on human energy, it is considered unskilled and hence less productive. On this basis, women are invariably paid lower wages, despite the fact that they work harder and for longer hours than do men."*[48]

The lower wages paid to women illustrate another important aspect of gender discrimination in India. Many household tasks including gathering firewood, caring for livestock, collecting water and other chores are not considered economically productive and therefore not recognized as work. Women and the lowest castes in the Hindu social hierarchy are therefore overrepresented among the rural poor. The rural poor suffer from low income, little or no access to education, health care and have alarmingly high rates of undernourishment. India's shining present, as we shall see, has only contributed to this overrepresentation.

CHANGING PATTERNS OF GROWTH: WILL INDIA'S IT SECTOR BENEFIT THE POOR?

Our investigation of the supposed correlation between economic liberalization, economic growth, and poverty has found that these phenomena are relatively independent. Economic growth has bypassed the poorest areas as inter-state growth and rural to urban growth rates have become increasingly unbalanced. A significant explanatory factor for the unchanged rates in poverty reduction is the qualitative composition of growth. In the U.S. today, the media is filled with images of India as a country brimming with cheap computer programmers, talented novelists, and glamorous Bollywood stars.[49] This is, of course, unrepresentative of India's poor, who are mainly rural agriculturalists with little possibility to join India's high tech revolution. To them access to food, land, and employment in the agricultural sector remain the highest priority.

The composition of economic growth in India changed dramatically in the 1990s. Agriculture, which has traditionally been a major factor for aggregate economic growth, has declined in importance, while growth was instead carried by the industrial sector and the service sector. From 1991 to 2000 the agricultural sector's importance as share of total GDP declined from 31% to 25%.[50] During the same period the contribution of the service sector has increased from 36% to 49%, and India's growing information technology sector, which has received widespread attention, accounted for 2%, up from 0.3%.[51] This changing composition of economic growth is to some an indication of India's move towards becoming a "*developed*" economy.[52] For this to be true there should be significant migration towards urban centers where former agricultural laborers and small farmers should find employment in the urban industrial and service sectors. But rural to urban migration has not increased and as we will discuss later, there is no indication that agricultural labor is moving in to the service and manufacturing sectors at a rate that could offset the slowdown in the agricultural sector.

Further, it is unclear that the IT industry is having any direct impact on poverty. There is significant uncertainty regarding the positive effects of non-agricultural growth on poverty,[53] while the positive correlation between agricultural growth and poverty reduction is much more significant. The sluggish performance of the agricultural sector is therefore of higher relevance to poverty issues than the booming IT industry. After all, poor farmers and farmworkers do not suddenly become software engineers nor is there much chance that they will, as the training mechanisms through which India's army of high-skilled workers have been assembled is systematically beyond the reach of the country's poorest.

	1980/81 – 1990/91	**1990/91 – 2000/01**
Andhra Pradesh	5.37	2.47
Assam	2.62	1.05
Bihar	3.51	-0.66
Gujarat	4.34	-1.34
Haryana	4.67	1.61
Karnataka	1.36	4.73
Kerala	3.6	1.36
Madhya Pradesh	2.22	1.58
Maharashtra	1.99	0.17
Orissa	2.36	-0.43
Punjab	4.21	2.19
Rajasthan	-0.53	2.72
Tamil Nadu	2.93	1.42
Uttar Pradesh	2.21	2.66
West Bengal	2.21	3.06
Total	3.12	2.73

Table 2 - Trend Rates of Growth for GDP in Agriculture and allied Activities by State (Source Dev 2003).

India's agricultural growth in the 1990s was disappointing. While GDP growth averaged at approximately 6% per year, agricultural growth was only 3.2% a year. The state-level performance in the agricultural sector following neoliberal reforms is not encouraging either. Table 1Table 2 shows state level GDP growth rates in the agricultural sector from 1980 to 2001.Of the 15 major states, only four states had higher annual agricultural growth rates in the 1990s (1993-94 to 2000-01) than in the 1980s (1980-81 to 1990-91). What is even more disturbing is the low-level agricultural performance in poor states such as Orissa and Bihar. With their large rural populations and immense poverty problems these states are more dependent on the agricultural economy than states with more developed manufacturing and service sectors such as Maharashtra and Karnataka.

As we have seen, while the agricultural sector now only accounts for 25% of India's GDP, agriculture remains the primary occupation for the majority of India's population. Approximately 235 million people and their families—58% of India's workforce—depend on the agricultural sector. The 1990s was a decade of deteriorating conditions for both farmers and workers. State and federal subsidies were removed and agricultural wages grew at only 2.5% during the last decade. These trends in agricultural wages are thus in sharp contrast to the trend in public sector salaries, which grew at almost 5% a year during the same period. This is disturbing since the relation between agricultural wages and rural poverty is highly correlated.[54] Once again this trend seems to have hit the poorest states the hardest; growth in real agricultural wages has been less than 2% per annum in Assam, Bihar and Orissa.[55] Overall, employment growth in the agricultural sector has contracted by 0.34% between 1994 to 2000, compared to an annual growth rate of 1.51% per year from 1983 to 1994.[56] Increasing employment opportunities in the rural non-farm sector can alleviate the impact of this slowing growth rate by providing alternative employment opportunities for rural workers. The rural transportation, trade, and construction sectors had higher growth rates in the 1990s, but not to the extent that they could offset the slowdown in the agricultural sector. Together with community and social services, agriculture still account for 70% of total rural employment opportunities, but neither of these sectors have experienced growth in the 1990s.[57] Overall rural employment has only increased at 0.5% per year from 1993 to 2000, compared to 1.7% a year in the previous decade.

India's boom in the high-tech industries and other related service sectors seem to be of little relevance to the rural poor, and it is difficult to share the enthusiasm and attention the IT boom is receiving from the World Bank. The Bank’s argument is that the increased income associated with the technology industry will benefit everyone. But this can only happen if there are effective mechanisms for redistribution of this income. We’ve already seen some evidence that these mechanisms have been eroded over the course of neoliberal adjustment, with income groups becoming more stratified as a result. Without redistribution, and notwithstanding it, agricultural wages and employment are more significant to poverty reduction than software engineering firms in Bangalore. The changing patterns of economic growth raise concerns regarding the positive impact of India's transition into a “developed” economy with a higher proportion of GDP arising from the urban service sector and high tech industries without rural development. India is on the path to a society sharply divided between high growth urban centers and a large poor rural class deprived of economic opportunities and it is a stratification in which the government, as we shall see below, is deeply complicit.

TAKING STOCK

We have so far found indications that economic liberalization has not resulted in significantly higher growth rates than in the 1980s and that poverty reduction has not accelerated significantly in the 1990s. There is as such little evidence to back up the World Bank’s enthusiasm for economic liberalization, which they claim has fueled growth and accelerated poverty reduction. The World Bank's claims of India's outstanding performance in the 1990s are exaggerated. Instead we find that economic liberalization has led to increasingly unbalanced growth. On the inter-state level evidence shows us that the states most urgently in need of economic growth to help reduce poverty have experienced much lower growth rates than the wealthier states and that poverty has not accelerated where it is most needed. A hard look at the data, even the suspect data provided by the Indian government, shows instead a picture of already wealthy states[58] getting richer while the poorer states lag behind. While there may be a continual overall trend out of poverty, cross-state inequality seems to be widening as some states – and their proportionally large rural populations – are left behind. Rural growth and poverty reduction has stalled in the poorest states.

PART III – ECONOMIC LIBERALIZATION AND THE RURAL POOR

Part III will focus on the rural poor and the impact of economic liberalization on the rural economy. We will focus on three particular areas: First we investigate the current crisis of agriculture as a product of inappropriate and undemocratic policies, including the recent shift to a neoliberal export-oriented agricultural model. We then investigate how economic reforms have affected the public's role in two central programs: 1) Rural development schemes that provide essential wage employment and infrastructure improvements to the rural poor and 2) India's comprehensive public food system, which has played an important role in averting famines through the history of post-independence India.

AGRICULTURE: THE RURAL ECONOMY IN DECLINE

Most of India's poorest families are small farmers and rural workers. They form a large, essential, and exploited component in India's economy. As mentioned earlier, the agricultural sector in India accounts for only 26% of national GDP, but employs 60% of the national workforce.[59] In the agricultural sector 78% are small-holder farmers, meaning they own less than 2.0 hectares (ha) of farmland.[60] They cultivate only 33% of the total farmland, but their farms are more productive than medium and large farms and India depends upon these small farmers to sustain the food supply.[61] For example, 41% of the grain produced in India is produced by small-holder farmers.[62] In 1991, 51% of the vegetable and fruit production similarly came from small-holders. Despite their importance in feeding India's population, a significant proportion of small-scale farmers still lack access to vital resources such as land, water, energy and credit. They lack political and economic leverage in comparison to the small class of large commercial farmers and therefore mostly overlooked by the Indian government as well as private investors. R. B. Singh, author of the report, "*Smallholder Farmers in India: Food Security and Agricultural Policy*" has expressed concern over the fact that the Indian government's development plans have grown increasingly negligent of rural development policy. Observing that agricultural and rural development averted India's hunger crisis in the 1950s and 1960s, Singh writes: "The task of feeding India shall reside with its cohort of small-holder farmers who constitute the overwhelming majority of the country's farmers."[63] The ability of this majority to feed the population and avoid starvation itself is in danger without a cogent plan to ensure small farmers' survival.

Given the centrality of Indian smallholder farmers in supplying the nation with sufficient food, and the mounting evidence that these farmers are increasingly disadvantaged, exploited, or impoverished, it is important to explore the policies and processes that have shaped India's rural economy since independence. A comprehensive land reform program was initiated early but the initial hope for more equal access to services and resources was soon shot to the ground when India launched its Green Revolution. The Green Revolution, with its research stations, new technologies, and input subsidies, purposely targeted only a few select areas with a high proportion of larger than average farms. It rapidly transformed the structure of agriculture in states such as Haryana, Punjab, Uttar Pradesh, and Gujarat while virtually ignoring the millions of small-scale farmers elsewhere. As India enters into a new stage of agricultural transformation based on neoliberal ideologies, a debate is developing over the varying impacts of trade liberalization implemented under the auspices of the World Trade Organization. This section seeks to assess that debate and to evaluate it critically by reviewing the progress of trade liberalization in agriculture so far.

A Brief History of India's Agriculture in the 20th Century

During almost two centuries as a British colony, India produced agricultural products primarily in the service of the needs of the British Empire rather than for the survival of its own people. While in power, Britain directed India's agricultural development toward the production of cash crops like indigo, cotton, poppy, and sugarcane for the Empire. As a result of the priority given to export crops over food crops and the arrogance of British administrators, India experienced several stages of acute famine particularly in the last quarter of the 19th century.[64] Rural India was left with a crippled rural economy that managed to fuel the industrial revolution back in England but could not feed its own population. Even after Independence, into the 1960s, India was still highly food insecure, importing food crops and in constant danger of famine.[65]

In the mid-1950s, agriculture was at the forefront of policy deliberations in India. Because India at that time was a net food importing nation, the government made achieving greater food self-sufficiency a national priority. To this end, the government began a process of agricultural restructuring. It enacted land reforms in the interest of increasing equality in the countryside, though in ultimately muted fashion. Widespread and comprehensive land reform was central to the populist vision of India, but the policy was evicerated - by industrial capitalists close to the Congress party, who had ties to the rural elite, landlords, and moneylenders. This trace of elitist development is one that can be seen in other components of India's restructuring program, including public investments in rural agriculture for irrigation and power, as well as providing affordable rural credit and solid extension services. These features aimed to improve the situation for farmers, encourage private investment in irrigation, and ultimately augment production and increase yields – yet the these benefits accrued disproportionately to wealthier farmers.[66] India also adopted the Land Grant model of research and extension from the United States, which placed universities at the center of agricultural innovation and fostered partnerships among universities in various regions of India to develop local outreach programs that would disseminate new information to farmers.[67]

Several institutions were established to enact the agricultural programs in what became known as the "Planning Era," from about 1950 to 1990. During this time, the government aimed to develop India's agriculture and ensure its food security through a top-down, planned approach. Agricultural strategies were to be centralized at the level of government and based upon the scientific research of elite agronomists both within India and abroad. Backed by both the government and the Ford Foundation, the Intensive Agriculture District Program (IADP) worked to guarantee food security through technology, by increasing productivity and yields using improved seeds planted on irrigated lands.[68] The Indian Agricultural Research Institute successfully adapted new breeds of wheat developed in Mexico and the United States to India's climate, thereby initiating India's Green Revolution in 1964, also known, in the early stages, as the

"Wheat Revolution." Successful breeds of higher yielding rice, cotton, sugarcane, millets, and oilseeds followed.[69]

In an effort to make the new agricultural strategy a success, the Indian government established agencies to protect the needs of both producers and consumers of food. The Agricultural Price Commission was established in 1965 to assure minimum support prices (MSPs) for farmers and to respond to the needs of poor consumers for food security. Meanwhile, the Public Distribution System (PDS) was established with the intent of alleviating times of food scarcity and maintaining stable consumer prices. The government expanded rural credit programs to facilitate farmers' ability to adopt new technology and take risks in order to increase production.[70] (We will discuss workings of these government supports as well as their role for rural farmers in Part III.)

Unfortunately, not all of the goals of the agricultural restructuring process were met. Wheat and rice, the primary high yielding variety (HYV) crops, represented the lasting successes of India's Green Revolution. Wheat production grew 5.1% per year in the period 1967 to 1990, and rice grew at 4.1% per year between 1980 and 1990.[71] But agricultural output on the whole had a lower growth rate than expected, at 2.7% per annum (with food grain production at 2.9% per annum) over the period from 1949 to 1990.[72] By the end of the planning era, India was considered only "marginally self-sufficient in foodgrains."[73] In addition, the government's attempts at improving equity in

Colonial Land Tenure and the Green Revolution

In a study by Banerjee and Iyer (2001) the authors examine the impact of colonial land tenure systems and agricultural yields in modern India. Land tenure under British rule was to a large extent dependent on how tax revenues were collected. Three basic systems can be identified: landlord based systems, individual cultivator based systems, and village based systems. Thus the British would collect taxes through the landlord, the individual farmer, or from the village. How these systems came in place in different regions of India was dependent on wide number of factors including individual preferences of the local administration, time of conquest, ideological preferences, political events, or simply through trial and error. By the end of British rule these systems had created a highly stratified rural economy. Areas in which landlords had been in charge of collection were in general more impoverished and had less rural infrastructure. These include some of today's poorest states such as Bihar, Orissa, and Madhya Pradesh. Areas where tax collection had occurred through village or individual based systems were in general better off, with more land and better rural infrastructure. Most of these areas are situated in the north western part of India including what is today Haryana and Punjab. Banerjee and Iyer attribute their overall better situation to the political leverage these farmers gained as an important tax base. By investigating growth in agricultural yields in the post-independence period, the authors find that these areas also have fared much better than the former landlord dominated areas. They link this trend to how post independence land reforms were implemented. Farmers in former landlord controlled areas were allocated little or marginal land and they could therefore not develop in to a significant economic middle class with political leverage. This explains the historical preference for Green Revolution investments and later on FCI purchases from the rich north western agrarian states. These farmers were already an established powerful lobby with enough political leverage to attract public agricultural investments while many of those in the former landlord dominated areas remain impoverished small-scale subsistence farmers. *(Source: Banerjee, Abhijit, and Lakshmi Iyer. "The Imperial Legacy: Colonial Land Tenure Systems and Independent India." Boston: MIT, 2001.)*

the countryside disappointed expectations. The intended land reforms did not succeed well as land ceilings were not enforced.[74] Without substantial land reform, the large majority of farms were considered too small to adopt the Green Revolution technologies designed for large-scale farming, such as mechanization and private irrigation systems.

Without an effective land reform at the outset of the Green Revolution, wealthier farmers benefited disproportionately from the advantages of Green Revolution technology, thereby deepening inequalities among Indian farmers over time. According to P. Eashvaraiah, author of *Liberalization, the State and Agriculture in India*, "the agricultural sector rests in the hands of a few capitalist farmers who thrive at the expense of small and marginal farms."[75] Today, half of India's farms are less than three acres (1.2 ha), and one third of all agricultural households are landless.[76] These poor rural families survive by doing wage work for larger landowners.

Furthermore, in its efforts to improve food security quickly and dramatically, the government focused on making major improvements in the regions and with the farmers that the government saw as best-suited to implement technical innovations in seeds and irrigation. The agricultural restructuring program placed a lower priority on the equal distribution of its new programs among farmers and, as a result, the benefits of India's Green Revolution were concentrated in certain regions and for wealthier farmers. Most of the new irrigation efforts, and consequently the gains of the Green Revolution, occurred in areas that already had good soil, climate, and topographical conditions. The states of Haryana, Punjab, Uttar Pradesh, and Gujarat experienced the greatest growth in agricultural production.[77] Unfortunately, these irrigated areas were not, and still are not, where the majority of Indian food production takes place. 70% of cultivatable land is in dry lands, where irregular rainfall complicates farming, and 42% of the nation's food now comes from these areas.[78]

Electrical Subsidies in Karnataka

Electricity subsidies provide a clear example of how government support for Green Revolution technologies has primarily benefited larger, wealthier farmers rather than the poor. A study on farmers in Karnataka examines an electrical subsidy for irrigation pumpsets. The subsidy is substantial, making power virtually free. Most of the rural population does not have access to irrigation, and almost all of those who do are considered non-poor. In fact, 83% of the poor in rural areas have no access to irrigation, and only 11% of the population that does have access to irrigation are poor. The data show that 51% of the benefits of the electric subsidy are enjoyed by large farmers (with 4 or more hectares), and that 80% of the benefits are enjoyed by medium and large farmers (with 2 or more hectares). Overall, the beneficiaries make up only 11% of the rural population. Synthesizing these data demonstrates that a very small proportion of the population reaps benefits from the subsidy. The study also shows that even among farmers with pumpsets, distribution of the electrical subsidy is highly unequal. Large farmers with pumpsets receive Rs 29,000 a year, or 10 times the amount that farmers with marginal land-holdings receive. This is in part due to the fact that farmers with large land-holdings often have more than one pump, and/or larger pumps. (*Source: Howes, Stephen , and Rinku Murgai. "Karnataka: Incidence of Agricultural Power Subsidies." Economic and Political Weekly [Online] www.epw.org/in/ (2003).*)

Rain-fed lands are in general less productive than irrigated lands and more vulnerable to periods of drought. An increase in general irrigation availability in these areas could significantly improve farm productivity as well as minimizing climatic risks.[79] The implementation of India's Green Revolution largely neglected farmers on land that was of less than ideal size or quality, and today these areas house the poorest and hungriest people in India. Note, again, that this is not to argue that the technologies of Green Revolution be extended to the poor – these technologies, and the models of farming of which they are a part, have shown themselves to be unsustainable. Anecdotal evidence from the farmers who use the technologies suggests that while farming communities are happy to grow Green Revolution crops for consumption elsewhere, they set aside plots of land to grow food using pesticide-free technologies for themselves. Our argument here is that it is the government support for and commitment to agriculture that buoyed up the Green Revolution ought to be generalized, not the technology. The philosophy of the Green Revolution counted on industrial advances to address the problem of hunger in India without sufficiently attending to the socio-economic causes of poverty and hunger.

One example of a misplaced faith in technology is the centralization and commercialization of seed production. The National Seed Corporation and the Terai Seed Corporation, established in the 1960s, followed by National Seeds Projects and Programs in the 1970s, began to produce certified seeds originating only from multinational corporations or research institutions. The establishment of these three Indian projects was made possible by World Bank loans, and in 1988, the World Bank funded another such project.[80] Seeds bred by these institutions, which contained pest-resistance or some other strengthening agent in order to increase farmers' yields, are protected by patents and intellectual property rights. Furthermore, they are bred to work only for one season. The promotion of hybrid seeds took the essential input for farming out of the hands of farmers and put it into the hands of institutions and corporations, to be sold at a price sometimes out of reach for the poorest farmers.

This means that Indian farmers and peasants, who for thousands of years have constantly improved crop varieties through breeding, saved seeds from harvest to harvest, and maintained the genetic diversity of cultivars, are now compelled to purchase seeds from corporations. In many cases farmers have to get credit from banks in order to use them.[81] Nevertheless, farmers in many regions still prefer to maintain their own seeds and exchange them amongst themselves, in response to which companies step up their marketing efforts towards these farmers.[82] Far more commonly, farmers cannot afford the seeds and suffer by comparison with others farmers who can. This is symptomatic of the prior inequities that the Green Revolution compounded. The provision of more or cheaper seed can only paper over these persistent differences.

Despite the minimum price supports provided by the Food Corporation of India, wholesale prices of wheat and rice did not increase significantly during the planning era. Low prices, though benefiting poorer consumers, did not benefit wheat and rice growers. The income increases due to yield increases of new varieties did not sufficiently offset the persistently low profits from food production. Finally, though the proportion of per capita income required to buy food declined over the period from 1950 to 1990, this per capita measure does not take into account distribution.[83] Despite the overall expansion of food availability, many of India's poor still face uncertainty about meeting their food needs on a consistent basis. This reality challenges the government's simple prescription, enacted beginning in the 1950s, that higher yields are the panacea to India's food security challenges.

As we have seen, Indian adoption of Green Revolution technology allowed a temporary increase in the output of food, yet it failed to improve the lives of all Indians. In designing and distributing Green Revolution technologies, the government focused on the farmers and regions easiest to reach: those already relatively well-off, with larger tracts of land, agreeable climates, and existing infrastructure. In this process, many were left behind. Worse yet, the technology itself has begun seriously to unravel.

A Slow Shift to Liberalization: 1980-2003

The 1980s and 1990s revealed a somewhat different approach to agriculture from the Indian government. The consolidation of Green Revolution industrial agriculture was accompanied by policies that favored moderate liberalization, deregulation, and a diminished role for the state in maintaining the agricultural sector. As a result, public investments in agriculture since the early 1980s have been declining.[84]

While policy changes were perceptible throughout the 1980s, the Indian government announced a deliberate shift to economic liberalization in 1991. The new economic policy of 1991, heavily influenced by IMF and World Bank formulas, was not a radical shift from India's approach toward agriculture at that time, but rather a continuation of a trajectory already begun. While the government's investment in agriculture and its willingness to provide price supports for small farmers had waned over time, the 1991 structural adjustment marked an official commitment to diminish the role of the state in the agricultural market. In addition, it is important to note that trade liberalization is one part of a whole package of economic reforms that have affected agriculture in India. From 1979 to 1990, the federal fiscal deficit exacerbated India's foreign debt crisis, which existed in part because of the huge subsidies on food, exports, and fertilizers. The foreign exchange crisis of 1990 drove India to heed IMF and World Bank structural adjustment programs, which included plans to privatize public enterprises, more fully integrate India into the world economy, change taxation and public expenditure structures, moderate wage increases, and deregulate prices and investments.[85] There is debate as to how much liberalization has affected the Indian agricultural sector and farmers' livelihoods to date. Eashvaraiah observes that liberalization has not occurred as systematically in India's agricultural sector as it has in the industry and trade sectors, but he notes that the Indian government plans to increasingly liberalize agriculture. Future steps would include further reduction in subsidies for food, fertilizer, and power; relaxing land ceiling laws, and removing quantitative import restrictions on certain commodities, all of which would significantly affect especially small and marginal farmers.[86] There is ample evidence, however, that varying degrees of liberalization have already occurred in the context of India's economic reforms of trade, financial, tax, and investment policies, and that small farmers and farmworkers have been affected by these changes.

Recipe for Environmental Disaster – The Sardar Sarovar Dam Project

Environmental problems are always also social problems. The Sardar Sarovar Dam Project (SSP) provides a monumental, and tragic, case in point. It is the largest and most ambitious dam project in Indian history, and when finished will create a megadam to provide drinking water for 40 million people, supply water to a 1450 MW hydroelectric power plant, and irrigate 1.8 million hectares of farmland in Gujarat and Rajasthan. The government of India has pushed ahead with the project since the early 1980s, fueled by $450 million in funding from the World Bank, despite highly inadequate environmental and human impact assessments.

This, at least, is the rhetoric behind the dam. Preliminary studies drastically underestimated the ecological impacts of the SSP, which has been described as one of "India's largest planned ecological disasters" by critics. The reservoir behind the dam will cover 39,134 hectares and displace 320,000 people and independent studies completed since the project's initiation show profound ecological problems, but to date no comprehensive assessment has been done. Thousands of people will be forced to relocate and more than 13,000 hectares of forest will be submerged, increasing the stress on the remaining forestland. Compensatory measures for the lost of forest habitat are ill-conceived and under-funded. Environmental impacts on the areas downstream from the dam were not evaluated despite the immense changes dams are known to have on river ecosystems. As water is redirected for irrigation purposes water flow will decline drastically, decreasing drinking water availability, increasing pollution concentration, changing estuary and coastal ecosystems, and ravaging the fishing economy. The only one of these problems that has been addressed in the SSP is the effects on fisheries, which they plan to remedy through stocking the reservoir with commercially important species, with no regard to other important indigenous species or the larger aquatic ecosystem.

Even the project's intended beneficiaries will suffer environmental hardship - salinization and water logging are the biggest threats, predicted to impact 55% of the total area planned for irrigation. Water logging could also increase the incidence of malaria and other diseases, a fact authorities denied until a proper study was conducted in 1991, forcing them to admit the danger. They plan to remedy this danger with pesticides, which poses a further health risk to both humans and the ecosystem. Pesticides and other pollutants are also likely to increase in the area as cropping patterns shift from drought-resistant food staples to irrigation-intensive export-oriented cash crops. Were the government to take these pending ecological and social disasters seriously, the remedies necessary to mitigate them would render the dam economically unviable. So the government ignores them.

While the government professes ignorance, considerable opposition to the project has been voiced, most notably through the Narmada Bachao Andolan (NBA), a grassroots organization of those being forced off their lands without proper compensation. They, along with a variety of support organizations, have challenged the Plan's basic assertions about the potential environmental impacts, the cost-benefit analysis, and especially the abuse of human rights and displacement of many poor and marginalized communities. They argue, with strong justification, that the people who stand to gain most from the dam are not the poor, or even rich, farmers, but industrialists who will profit from the cheap power produced by the dam. The NBA's popular resistance forced the World Bank to convene an independent commission—the first one ever to examine a World Bank project—and the results vindicated the NBA: the commission recommended the immediate cessation of the project, stating "it seems clear that engineering and economic imperatives have driven the project to the exclusion of human and environmental concerns." Though this did convince the World Bank to pull their funding, the Indian government nevertheless is continuing the project without regard for the social and ecological problems it continues to cause. *(Source: www.narmada.org & Kothari, Ashish & Ram, Rahul N. (1994) Environmental Impacts of the Sardar Sarova Project, [online] www.narmarda.ora/env/index.html).*

By the late 1980s, it became clear that the Indian government's long-term commitment to the agricultural sector was declining. The Public sector investment is not primarily confined to roads, electricity, storage, and some technology, while central areas such as irrigation, R&D, and credit is becoming increasingly privatized. Public sector investment

Figure 11 - Public Sector Capital Formation in Agriculture and Allied Sector 1985-2001. Rs. Crore in 1993-94 prices (Source: Department of Agriculture and Cooperation 2003)

in agriculture registered a decline of 28.9% (See Figure 11) between 1985 and 2001, even while overall total public sector capital formation of economy increased by 36.9%.[87] Ideally public sector cuts were to be balanced by increased private sector investments which, according to neoliberal ideology, should reinvigorate and streamline Indian agriculture. Private sector investment in agriculture has however not occurred at a level that compensates for the decline in public sector investment. The result is that the

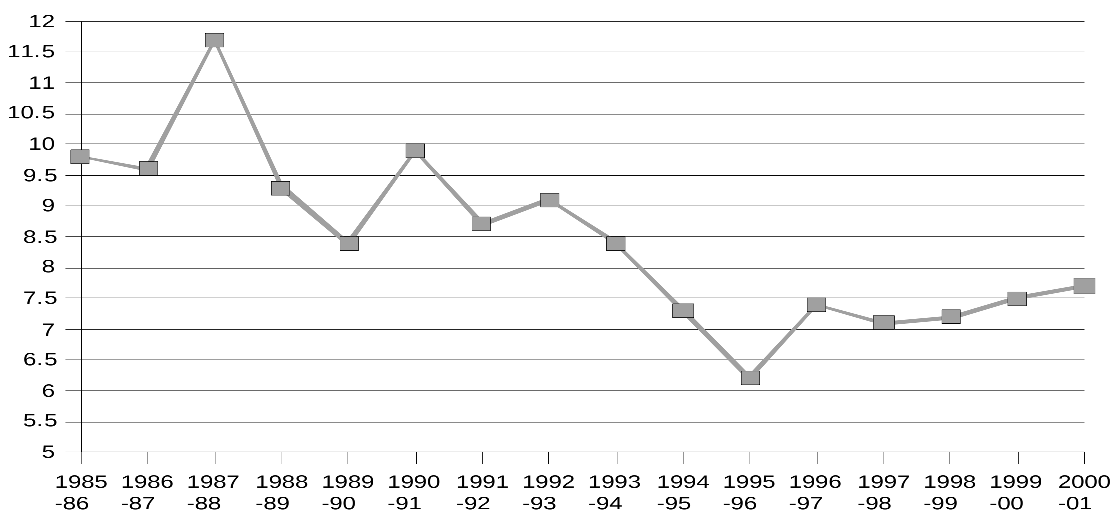

Figure 12 - Gross Capital Formation (Public and Private) in Agriculture and Allied Sector 1985-2001 as Share of Total Gross Capital Formation (Source: Department of Agriculture and Cooperation 2003)

agricultural sector is receiving a diminishing share of gross capital formation in India (See Figure 12).[88]

Public sector investments in irrigation have been a central part of agricultural policy in India for more than 40 years. Heavy investments in irrigation systems were intended to increase yields and reduce crop failure rates in drought prone areas. In 1990 45.7 million hectares - approximately 25% of total cultivated land - were under irrigation (See Table 3).[89] While irrigation schemes are falling under heavy critique for their environmental impact and waste, there is, on the other hand, clear evidence that areas with lower levels of irrigation suffer from higher levels of poverty.[90] Even small improvements in irrigation can have a major impact on poverty and expanding irrigation to the vast rain-fed areas where the majority of India's poor reside should be a priority. However such major irrigation projects seem unlikely to happen under economic liberalization. Under the Ninth Plan (1997-2002) an additional 3.4 million hectares per annum were targeted for irrigation yet only 1.8 million hectares per annum was realized.[91] The lack of political will is evident in several states where governments claim they have no money to fund irrigation schemes but are willing to spend millions on high tech industries. The lack of political will to irrigation schemes is well-described in the recent book "*Globalization: An Attack on India's Sovereignty*":

		Percentage of population	
Farm-size group	**Irrigated area (per cent)**	**Poor**	**Under-nourished**
Sub-marginal	0	40%	37%
	<20	27%	20%
	20-50	36%	29%
	50-80	36%	28%
	>80	37%	27%
Marginal	0	32%	31%
	<20	26%	25%
	20-50	25%	27%
	50-80	23%	16%
	>80	22%	15%
Small	0	27%	27%
	<20	22%	22%
	20-50	20%	22%
	50-80	18%	13%
	>80	12%	9%

Table 3 - Poverty and Under-Nutrition by Irrigation and Farm Size in 1993 (Source: FAO 2002)

> "*…last year the Maharashtra government abandoned 2,600 schemes for water projects due to "inadequate funds". Yet the government can spend Rs 100 crores each year to supply water by tankers. This satisfies the powerful tanker mafia, which has links with the top politicians of the state. Besides, only 15% of the cultivable land in Maharashtra is under irrigation, which is half the national average, the bulk of which is cornered by the sugar lobby. So, a state that generates the largest revenues (due to industrial/finance concentration in the Mumbai-Pune belt) cannot find any funds for irrigation !!*"[92]

Further, it is unlikely that private investments in irrigation schemes will be able to reach marginal farmers, as private funds are mostly allocated for minor projects that provide profitable returns to the investor - that is, projects that are primarily export-oriented. Because profitability is the main incentive for private investments commercial farmers are a much more attractive sector than marginal subsistence farmers. Subsistence farmers are therefore reliant on public irrigation schemes, but current interests in Indian politics do not seem to favor major public irrigation works.

The decline in public investment has also severely lowered the number of low interest loans available to farmers. Institutional credit is increasingly operated through the private banking sector, and private credit institutions have much higher interest rates than the previous government controlled credit systems.[93] A study by the Institute of Economic Growth (IEG) found that India's new economic policy has made affordable rural credit increasingly inaccessible as regulations mandating credit institutions to expand into rural areas have slackened. The reduced access to rural credit is also due to changes in lending priorities and risk averting behavior by private banks. Priority sector lending to agriculture as share of total priority sector lending fell from 16.4% to 15.3% between 1991 and 2002, far below the targeted 18%. Overall lending to the agriculture sector is declining, mostly due to the shift from public to private lending. Commercial banks only directed 10.8% of total credit to agriculture, well below the required 18%, because private banks consider agriculture a high risk sector. The unwillingness of banks to lend money to small farmers highlights the problems related to privatization of agricultural extension services. Commercial banks prefer to invest in low risk projects with profitable returns, which quite logically excludes many of India's small farmers.

As a response to inadequate private funding for agriculture, the government established the Rural Infrastructure Development Fund (RIDF). The fund is financed by private banks who failed to direct the required 18% of net credit to agriculture. Lending to the RIDF is much more attractive to private banks than lending directly to farmers, [94] because under the RIDF banks are ensured an 11.5% interest rate by the National Bank for Agriculture and Rural Development (NABARD), and thus it is a more secure investment. In effect, the banks are being rewarded for not meeting their required targets, because the penalty requires nothing extra and is more secure.[95]

The structural adjustment programs of the 1990s have also favored manufacturing at the expense of agriculture in external trade. In an attempt to protect important industries, the Indian government's policies have sometimes sacrificed the well-being of farmers. For example, the government has protected industries that produce agricultural inputs, such as fertilizers, by setting high prices for these goods. Farmers, who have not received comparable protections, have been forced to buy these inputs at a high cost. The subsidies some farmers received for fertilizers, electricity, and irrigation did not compensate them for the higher prices of inputs, or the low prices of commodities.[96] Farmers who did not receive such subsidies were in an even more difficult position, facing higher production costs and lower prices for their own crops.

The government has also lessened control of export and imports as part of economic reforms. Servaas Storm, a noted Indian economist, observes that from the

1960s to the 1990s, India protected its small farmers by stabilizing agricultural prices, imposing quantitative restrictions on key agricultural imports and strictly regulating international agricultural trade. In this way, the government insulated its farming communities, and thus the majority of its population, from the rapid fluctuations and downswings of world prices. The post-1991 reforms, however, shifted India's trade policy toward greater liberalization, in an effort to harmonize domestic prices of inputs and outputs with world prices. In the agricultural sector this involved eliminating most quantitative restrictions on agricultural imports, lowering most import duties, and completely liberalizing rice exports.[97] This in turn has significant implications for what sort of crops farmers grow. Agricultural policy has traditionally put a strong emphasis on food grain production to ensure food self-sufficiency. Under trade liberalization such policies are increasingly difficult to maintain. Without price stabilization schemes for food grains and the increased competition from heavily subsidized US and European grain farmers are increasingly switching to export-oriented cash crops that provide better financial returns.

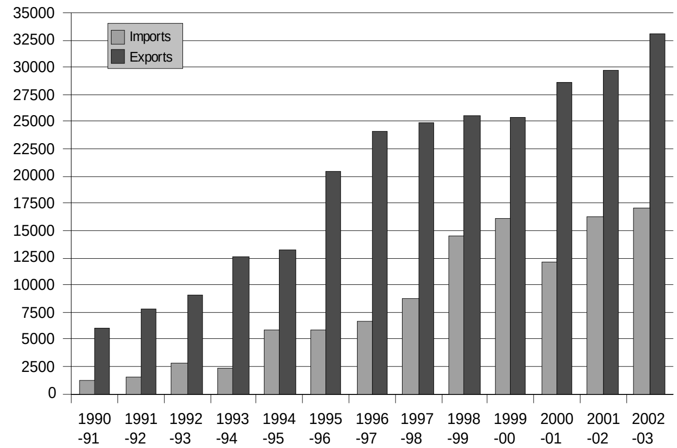

Figure 13 - Imports and Exports of Agricultural Commodities from 1990-2003 in Rs. crore (Source: Department of Agriculture and Cooperation 2003)

Farm areas devoted to traditional staples such as pulses and edible oils are being replanted with cash crops such as nuts, cotton, tea, sugarcane, and horticultural products. Agricultural exports are an essential motivation for liberalizing the agricultural sector, and they have experienced boomed during the 1990s. The total value of agricultural exports has increased steadily but food imports have grown at an even faster rate. From being virtually self sufficient in foodgrains in 1990-91 India is now importing massive amounts of agricultural products. If we look at the composition of food imports, the situation is even more intriguing. Imports of edible oils have increased most dramatically. From being largely self-sufficient in edible oils, India now imports half of its edible oils. Pulses, another important staple in the Indian diet, have also seen a drastic increase by the end of the 1990s. Imports of these two staples in fact make up more than two thirds of total food imports.[98] The fact that imports have risen so drastically for two such important staples indicates that significant changes in Indian agriculture is going on. The underlying explanation lies with the fact that India has reduced tariffs below the required on these particular commodities, but not on wheat and rice.[99] These choices once again reflect the Indian government's preferential treatment of farmers in the wealthy states Green Revolution of Haryana and Punjab who are the main producers of rice and wheat. Oilseeds and pulses on the other hand, are primarily grown by small farmers who now see their crops being outperformed by low-cost imports.

Another salient fact is that the total area devoted to foodgrains has declined by more than 5 million hectares between 1990 and 2000-01. Despite the continual government protection of certain sectors such as rice and wheat, trade liberalization has caused farmers to shift from food crops for domestic consumption to export crops, and growth in food grain production is now growing at a slower rate than population growth.[100] Proponents of economic liberalization argue that such a move is not necessarily a bad thing. Indeed export crops may increase farm income and agricultural wages and thus help reduce poverty. While this may work in theory, in practice there is little to support such a notion. As already mentioned in Part II, agricultural growth has

Pepsi, Potatoes, and Poverty – Contract Farming in the Punjab
In the mid-1990s multinational corporations found their way to the Punjab, India's food basket and the cradle of India's green revolution. With its high degree of mechanization, good rural infrastructure, and a large commercial farming sector, Punjab suited the needs of multinational corporations such as Nestlé, Pepsi, and Unilever. These companies have now established contract farming arrangements with local farmers to grow tomatoes, potatoes, and chili. Under the contract these companies provide seeds on credit as well as free technical advice on cultivation and which brands of pesticides and herbicides to use. The company guarantees to buy a certain quantity of the produce at a prearranged price if the produce lives up to the required quality measures. In case of crop failure, the company usually waives the cost of seedlings but the farmer bears the rest of an eventual loss. While officially this system is promoted as reducing financial risk for both parties, the asymmetry between the company and the farmer is clear, and without a written contract it is difficult for the farmer to file any complaints. Some farmers are satisfied with the system, and contract farming seems to have increased farm labor wages. But there are also many complaints. Farmers have complained about denial of compensation in case of crop failures, delayed payments, poor technical assistance, manipulation of quality standards, and outright cheating in dealings on the part of the company. Contracts are biased strongly in favor of the companies who can penalize farmers who do not fulfill their contract or do not meet required standards but no sort of financial compensation is offered to the farmer in case the company fails to meet its responsibilities. The farmer's financial risk is therefore considerably higher than that of the company. In periods of drought and crop failure many farmers see themselves heavily indebted to these companies. In 1998 the financial vulnerability of contract farmers was exposed as many became heavily indebted due to crop failures. Some of these farmers resorted to suicide as the financial burden became too overwhelming. With proper government monitoring and intervention this desperate situation could have been avoided, but the Indian government needs to reassess whose interest they are to protect: those of multinational corporations or those of the Indian people. (*Source: Singh, Sukhpal (2002): Multinational Corporations and Agricultural Development: A Study of Contract Farming in the Indian Punjab, Journal of International Development, Vol. 14, iss. 2, pg. 181-194*)

been less than expected in the 1990s, farm employment has contracted and agricultural wages have grown at a much slower rate than other sectors. There is as such little evidence that the shift to export oriented agriculture has revived the rural economy. There is rather evidence that trade liberalization has put a halt to 40 years of agricultural growth. The slowdown in the agricultural economy is indeed a worrying trend as the poorest parts of India's population are landless farmworkers or sub-marginal farmers who depend on agricultural employment opportunities for survival.

The shift to export crops is also a cause of concern in the light of India's massive problems of under nutrition and historical marginal food self sufficiency. India experienced a downward trend in per capita net production and availability of foodgrains in the 1990s thus reversing a 40 year growth trend (See Table 4). The declining availability of foodgrains bears reminiscence of the food situation under British colonial rule. Per capita availability of foodgrains at the turn of the millennium was actually declining to a level comparable to what India experienced during the recession in the 1930s.

	Per Capita Output Kg.			**Avg. Population (Million)**	**Per Capita Availability Kg.**		
Period	Cereals Less Feed	Pulses	Total Food-grains		Cereals Less Feed	Pulses	Total Food-grains
1921-1926			171.1	253.26			174.5
1927-1932			154.2	270.98			159.3
1933-1938			146.7	291.03			148.5
1989-90 to 91-92	159.3	15.7	175.6	850.58	159.3	14.2	173.5
1992-93 to 94-95	162.4	14.9	177.3	899.62	156.5	13.6	170.1
1995-96 to 97-98	157.6	13.9	171.5	950.87	156.6	12.7	169.3
1998-99 to 00-01	157.7	13.4	171.1	1004.58	1547.3	11.8	159.1

Table 4 - Net Output of Foodgrains, Total and Per Capita, 1989-90 to 2000-01 (Source: Patnaik, 2002)

Any sort of decline in food availability is of course bound to be detrimental to India’s effort to reduce hunger and undernourishment, and it is bound to affect the poorest parts of the population who already suffer from severe undernourishment more than any other income group. The impact on production and availability of foodgrains caused by the shift towards export oriented agriculture is thus clear. So while we have no data on the small farmers’ response in India to economic liberalization in terms of cropping patterns, we have definite evidence that India’s policy of food self sufficiency is suffering.

Taking Stock

There is ample reason to be highly critical of India’s development policies following independence. The political will to establish national food self sufficiency was in itself a noble goal and of much need in a country where two centuries of colonial exploitation had left India incapable of meeting their own food requirements. The actual implementation of agricultural policies is another question. From the onset agricultural policy was highly centralized and implemented as a top-down strategy. In many cases land reforms only resulted in a large number of subsistence farmers with land plots of two hectares or less, thus rendering them incapable of attracting any sort of investments. Instead the government chose to achieve food self-sufficiency by means of Green Revolution technologies. But these were only offered to selected farmers deemed to have the adequate political, economic, and ecological resources readily available, and national food-self sufficiency was therefore reached through highly centralized government programs offered to a small exclusive group of farmers. The majority of India’s rural population was neglected in the political processes and most farmers still have little access to irrigation, electricity, input subsidies, and technical support today more than 40 years after the initial land reforms.

With economic liberalization these inequalities have become more profound. The deregulation of domestic price controls on food and the elimination of many government subsidies have rendered food grain production less profitable. Commercial farmers instead shift to more profitable cash crops, but without government protection in case of crop failure this is a risky business. Worse yet, India is now once again a net importing country in food grains, and with more and more farmers shifting to cash crops for exports this is unlikely to change in the near future. Forty years of investment in national food self sufficiency has been reversed. Meanwhile multinational corporations benefit from the many public investments in agriculture. Machines, irrigation systems, labor, and land once dedicated to feeding India is now used to produce profits for Nestlé, Pepsi, and Unilever.

RURAL DEVELOPMENT: SPREADING THE GAINS OF ECONOMIC GROWTH

Economic reforms have not only hurt the agricultural sector; India's public services have been another target for the neoliberal reform agenda. The structure of social services came under attack with the advent of economic reforms. Budgetary reforms in the 1990s aimed to, first, streamline public expenditure by reducing overall spending, and second, target aid to the poor more efficiently. India was to cut subsidies to industry, agriculture, and consumers; encourage private sector investment through tax breaks; and reprioritize social sector services. We argue that the reprioritization of social sector services have not targeted the poor better but rather ignored their needs and demands. Two areas especially vital to the livelihoods of the poor have experienced drastic reductions during economic liberalization: Rural development programs, and access to affordable food through the Public Distribution System (PDS). In the following section we will examine the changes within these two areas during the 1990s, but first we will investigate the changes made to social services.

One important way of ensuring that economic growth benefits the rural poor is by assuring that wealth is in some way redistributed. As mentioned earlier, aggregate economic growth and low inflation were, prior to the 1990s, important aspects in reducing aggregate poverty not because growth was in itself a magic charm, but because it provided an accessible pool of economic resources through which redistribution to the poor could occur. Historically in India, fiscal transfers of federal tax revenues to the poorest states have been crucial to the close positive correlation between aggregate growth and aggregate poverty reduction.[101] Federal tax revenues have helped fund social services such as infrastructure improvements, employment programs, and industrial development in poorer states.[102] The states themselves were in charge of providing most social services but financial input from the central government was crucial for the poorer states. This system has been hampered by corruption, bureaucratic inefficiencies, etc.; yet there seems to be significant evidence that poor states politically committed to poverty alleviation combined with central government funding have been successful in spreading the gains of economic growth to rural areas.[103] Thus if we are to expect that high growth rates in the IT sector and other urban industries is to contribute to poverty reduction in India, then redistribution of wealth to rural areas must be of great importance.

Overall social sector expenditure as share of GDP experienced a slight increase from 6.78% in 1990-91 to 6.97% in 2000-01. Social sector expenditure as a share of aggregate public expenditure also increased from 24.81% in 1990-91 to 26.61% in 2000-01.[104] Per capita social sector expenditure in real prices increased from 623 Rs to 959 Rs during the same period. The immediate impression is thus that economic reforms have resulted in a higher prioritization of social sector services in India. These numbers are misleading because they do not reveal important and somewhat disturbing changes in the allocation and use of social sector budgets. First, the federal government has reduced allocations to states in order to fund centralized programs, thereby crippling some state level social sector programs that are now under-funded. Second, the composition of social sector allocations shows that rural development programs in particular have been subject to harsh budget cuts.

Economic reforms have led to a higher centralization of social sector services. The central government has increased its share of total social sector expenditure, and now accounts for 20% of total social sector expenditure, up from 14.8% in 1990-91.[105] The greater centralization of social service sector expenditure has been partly funded by reducing fiscal transfers to the states,[106] which means that states are now more dependent on a local tax income base for funding. The increased dependence on a local tax base to fund state-level social services has been most detrimental to low-income states such as Bihar, Orissa, and Uttar Pradesh. Their relatively large rural population of subsistence farmers and landless agricultural laborers as well as their lack of major urban industrial hubs narrows the tax base. The combination of stagnating agricultural growth and reduced fiscal transfers from the center has made many of these states unable to continue many social programs because of severe cash flow problems.[107]

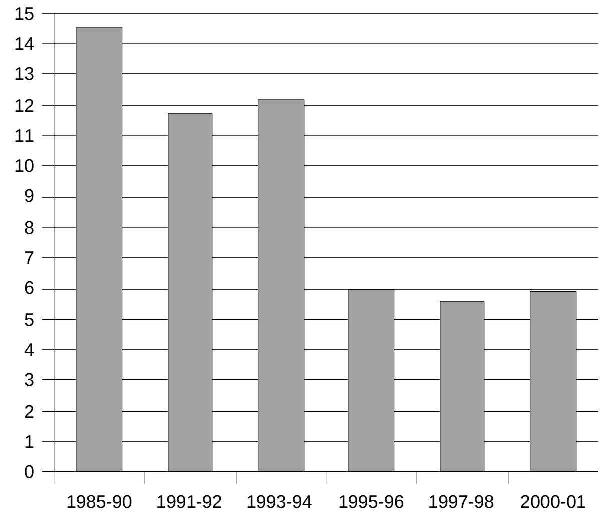

Figure 14 - Rural Development Expenditure as Share of GDP (Source: Patnaik, 2002)

States	1990-91	1995-96	1998-99
Goa	100	58	77
Gujarat	100	71	101
Haryana	100	55	39
Maharashtra	100	137	99
Punjab	100	95	93
Rich sub-total	**100**	**108**	**94**
Andhra Pradesh	100	70	148
Karnataka	100	73	73
Kerala	100	90	378
Tamil Nadu	100	58	84
West Bengal	100	86	92
Middle sub-total	**100**	**73**	**127**
Bihar	100	81	221
Madhya Pradesh	100	126	138
Orissa	100	56	82
Rajasthan	100	79	63
Uttar Pradesh	100	46	59
Poor sub-total	**100**	**70**	**98**
Total	**100**	**79**	**107**

Table 5 - Index of Per Capita Real Expenditure on Rural Development at State Level at 1993-94 prices (Source: Dev 2002)

The changing composition of social sector expenditure has also drawn money away from the poor. Despite a large social sector budget increase at the end of the 1990s, most of this went to increase salaries rather than funding for existing or new social programs.[108] There is as such no indication that social sector services have expanded during the 1990s. In fact, rural development budgets have been drastically cut.
The reduction in rural development expenditure has happened both at the state level as well as the federal level. Only five of the major states have higher per capita spending on rural development during 1998-99 as compared to 1990-91 (See Table 5). Among the poorest states only Bihar and Madhya Pradesh reported higher per capita expenditure in real prices on rural development at the end of the period than at the beginning of the period.[109] Rural development expenditure, as a share of the central government total social sector expenditure, has declined from

33.23% in 1990-91 to only 12.19% in 2000-01.[110] This means that rural development programs have been increasingly neglected from both the central government and most of the major states.

Rural development programs are economically beneficial in the short term and long term. The construction of roads, housing, irrigation, and other infrastructure is very labor-intensive, providing much needed non-farm employment for landless workforce as well as marginal farmers.[111] These employment opportunities seem especially important, as the growth rate of rural employment slowed from 1.7% per year from 1983 to 1993-94 to just 0.5% per year from 1993-94 to 1999-00, and rural unemployment rose to 7.21% in 1999-00 from 5.63% just six years prior.[112] There are long lasting economic benefits of improved infrastructure in rural areas, as it brings greater access to markets, inputs, and extension services; the availability of irrigation; and a host of other factors. These improvements can effect the overall growth rate of agricultural output, and through it, rural employment.[113] Infrastructure improvements, in short, can begin a spiral out of poverty, but with cuts to rural development program budgets, such improvements cannot be made.

So why did budget allocations for rural development decline so drastically if 75% of India's poor live in rural areas? The explanation lies in an ideological shift in poverty reduction policy. From the mid 1990s Indian development policy has emphasized access to basic services such as housing, roads, and sanitation, at the expense of more traditional rural development programs such as wage employment schemes and irrigation. This is confirmed by looking at the central government's social sector budget allocations in the latter half of the 1990s. From 1990 to 2000 the central government increased its share of combined state and federal rural development expenditure from 9.7% to 35.8%.[114] This means that the federal government has a much higher control of rural development programs than in the early 1990s, and centralization in rural development is much higher than the overall centralization trend in the social sector.[115] This centralization has allowed the government to finance its Basic Services program. The prioritization of the Basic Services program is detrimental to rural development because it comes at the cost of center-to-state fiscal transfers. Also, the Basic Services program is not only reserved for rural areas but also for urban areas, an indication of an urban bias in the budgetary reforms. Rural development programs are now to a larger extent dependent on private loans for funding. These are difficult to access for low income states as they require a financial return on investment to repay loans.

A case in point is the Rural Infrastructure Development Fund (RIDF). This central fund was established on the instruction of the federal government in 1995-96 to finance the building of roads, bridges, and irrigation systems. As previously discussed, the RIDF is bankrolled by commercial banks that failed to lend at least 18% of net bank credit to agriculture, and instead lend to the RIDF program through the National Bank for Agriculture and Rural Development (NABARD) at an 11.5% interest rate. The RIDF program was intended to improve economic opportunities in rural areas through road construction and irrigation schemes, which have the potential to increase rural employment in the short term and improve overall economic potential in the long term. From the outset, however, funds have been heavily underutilized, partly due to bureaucratic delays but also because of the 11.5% interest rate. Poor states often can not afford these loans and as such rarely apply for funding. Bihar for example, with its dire need for rural development has not applied for any loans from the RIDF over the past five years.[116] The RIDF creates another dilemma for the poorest states and rural regions: repaying loans from the RIDF requires a profitable return on infrastructure improvements, which in turn requires charging for the use of these improvements. Since the income base in these areas is limited there is little possibility to repay loans within the allotted time frame. The banks on the other hand, take little or no risk since their loans are guaranteed by the government.

Other rural development programs have also failed to target the poor. Among these programs are the "*Integrated Rural Development Programme*" (IRDP), which is a rural credit program for self employment, and the "*Rural Public Works program*" (RPW). Of the population to receive assistance from the IRDP only 23% were classified as poor, and for the RPW only 31% of recipients fell into that category.[117]

TAKING STOCK

Through this examination, we see that Indian government policy, through its economic reform program, has shifted from a welfare-oriented policy to a program primarily concerned with economic efficiency. As a result it has not been able to achieve its proclaimed goal of targeting the poor more effectively.[118] Socially progressive programs targeted to the poor have been replaced by less redistributive and more general schemes. Traditional rural development programs are instead to be funded through private sector loans at interest rates too high to be accessible to the poor. Several domestic economic observers have expressed concerns about the lack of political support for rural development and stress the need for increased public investments in rural infrastructure, agricultural research and development, as well as rural employment opportunities.[119] These areas have been neglected in the government's effort to streamline India's economy and state institutions as prescribed by neoliberal policy. This is an odd democratic moment. Under an adjustment policy that ostensibly supports decentralization, the federal government was able to concentrate budgetary and economic policy authority over states' own rural development policy, in the name of increased efficiency. The effect has been to exacerbate inequality between and within states. This is a theme to which we will have frequent cause to return. The poorest states, regions, and people need increased financial support in order to reduce poverty. But the political will to do so does not seem to be part of India's current social sector policy.[120]

THE PUBLIC FOOD SYSTEM: PROVIDING FOOD TO THE POOR

The problems of the Rural Infrastructure Development Fund, Integrated Rural Development Program, and Rural Public Works program are examples of a trend: in the name of increased efficiency, welfare budgets are reduced, and 'targeting' introduced. Yet too often, the poor fail to benefit (and the rich reap the rewards of state subsidy). We can conclude that whenever "targeted assistance" is used to justify reforms they will result in budget cuts, not better services. The most important social program in India, one that has been the subject of a great deal of political tension and probably the most eminent example of targeted assistance, and in which the debate over efficiency is a matter of life and death, is the Indian food distribution system. We now turn to look at the two primary public institutions in charge of ensuring distribution of food at affordable prices to India's poor: *The Food Corporation of India* (FCI) and the *Public Distribution System* (PDS).

India has been plagued by famines from the end of the 18th century, but the causes of these famines deserve close scrutiny. Mike Davis, in his seminal "Late Victorian Holocausts" notes the following:

> "*Although the British insisted that they had rescued India from 'timeless hunger', more than one official was jolted when Indian nationalists quoted from an 1878 study published in the prestigious Journal of the Statistical Society that contrasted thirty one serious famines in 120 years of British rule against only seventeen recorded famines in the entire previous two millennia.*"[121]

The death toll from these famines was in the tens of millions. The cause, argues Davis, was not the weather, or endemic incompetence, but the systematic introduction of markets in grain, and a concomitant suppression of the prior feudal social systems, exploitative arrangements that nonetheless imposed obligation on rulers to feed the hungry when they could not afford to eat. This moral demand was one that was actively suppresed under the market system introduced by the British, and which continues to reap a toll today.

At the end of British rule India was largely dependent on food imports, as much of Indian agriculture was geared towards cash crops such as cotton. After some critical years of drought in the mid 1960s where India had to import up to 11 million tonnes of food a year, national food self-sufficiency and access to food for all became a priority in Indian development policy. The FCI and the PDS were set up to avert future famines by putting the government in control of production and distribution of food.

The FCI was set up in 1965 as part of the Agricultural Prices Commission.[122] The FCI had two main roles in India's food security policy: 1) increase domestic production to achieve food self-sufficiency and 2) keep buffer stock inventories in case of failing harvests. These goals were met through the introduction of Green Revolution technologies, producer subsidies, strict import/export regulations, and purchase of excess foodgrains at a set minimum support price (MSP).[123] Most of these measures were aimed directly at protecting producers, rather than consumers. This is important because while most of the poorest Indians are producers, the most powerful producers have managed to appropriate most state support.

Protection for consumers was ensured by the PDS,[124] as a subsidiary of the FCI. The PDS was expanded to provide universal access to basic food stuffs and essential staples[125] at subsidized prices. At its height, the PDS distributed 18.8 million tons of coarse cereals to more than 80 million people through a network of 40,000 fair price shops,[126] and famines have been averted for almost three decades. Even during the 1987 drought, the severest drought recorded in the 20th century, hunger and starvation was largely avoided thanks to the existence of public food stocks and redistributive measures.[127]

Upon deeper examination, however, several problems with the FCI and PDS become apparent. Criticisms of each of these institutions have come from multiple sides, but they tend to converge on the same flaws: for the FCI, critique centers on its purchasing practices, while criticism of the PDS is of its ability to reach the poorest.

FCI procurements come primarily from commercial farmers[128] in the Green Revolution states of Andhra Pradesh, Haryana, and Punjab.[129] These commercial farmers constitute a powerful political lobby that have pushed for higher procurement prices on the grounds of increasing costs of production and lower market prices.[130] As a result, FCI expenditures on food grain purchases have increased during the 1990s. Government procurements went from an average of 20 million tons a year during 1991-97 to 40 million tons in 2001.[131] This means that in the 1990s, the FCI bought more grain at higher prices in order to protect the economic interests of the commercial farming sector.

The PDS has been criticized for not reaching the poorest because of bureaucratic inefficiencies and corruption.[132] Despite sufficient food production, the PDS has failed to provide universal access to food. In 1992 India had the second highest rate of undernourishment in the world; in fact, undernourishment levels were higher in India than in Sub-Saharan Africa.[133] Fifty two percent of all children under the age of three were underweight and 20% of them were determined to be severely underweight.[134] Among adults the prevalence of undernourishment was estimated at around 50%.[135] Critics attacked the system for falling short of providing food to almost half of India's population. Yet, rather than providing evidence of a systemically inequitable distribution of goods, and spurring the search for mechanisms to ensure complete distributive coverage and entitlement, these high rates of nutritional deficiency and the related health problems have been used to fuel a critique of the PDS system as a major economic burden as well as an inefficient mechanism for targeting the poorest households. The World Bank has used these apparent flaws to claim that the PDS together with the FCI are obsolete institutions that essentially block the way for a more efficient market-oriented solution to India's hunger problems.[136]

Yielding to the Bank, in 1992 the Government of India replaced the PDS with the "Revamped PDS," a weakened version that included increases in issue prices, which ostensibly had been low for the benefit of India's poor. These price increases were not welcomed by the Indian people, and with the resurgence of populism in Indian politics, the revised PDS system was replaced in 1997 (an election year) by the "Targeted PDS" (TPDS). The overarching motivation was to accommodate the two major points of criticisms at the same time: 1) that the PDS system failed to reach the rural poor and 2) that the universal PDS system was too expensive.[137] But despite the fact that the TPDS officially reflected populist criticisms of the PDS's reach, the charges made were closely

Economic Liberalization: Undermining Kerala's Public Distribution System.
Nowhere in India has the Public Distribution System been more successful than in the state of Kerala. The system has been extended to practically every village so that no person is more than 2 kilometers from one of the 15.000 ration shops spread throughout the state. In fact more than 90% of the population depended on PDS rations. The introduction of the TPDS in 1999 put an end to that. Wheat and rice distributions declined from 16.39 lakh tons of rice and 4.58 lakh tons in 1998 to 3.28 and 1.25 lakh tons respectively in 2002. Now less than 45% of the population is eligible for PDS subsidized grains and thousands of food ration dealers have lost their livelihoods. In the Kozhikkode district 10 ration shop dealers have committed suicide due to lost business and increased debts. Efforts by the state government to buffer the negative effects of the centrally imposed reform have had little impact. Kerala's PDS, once an exemplary food system, has fallen victim to economic liberalization. (*Source: Suchitra, M. Undermining a Fine System? www.Indiatogether.org [online], January 2004, [cited January 28 2004]. Available from http://www.indiatogether.org/2003/jan/pov-keralapds.htm*)

aligned with the World Bank's demands for reduced public sector involvement in food markets. Indeed the World Bank was an avid promoter of the TPDS.[138]

At this point, we pause to note an oddity. It is unusual that an organization like the World Bank, so keen to see the demise of the PDS, should have been tasked with life-saving surgery on it. Consistently, the Bank has rebuked the Indian government for attempting to regulate food prices instead of leaving it to the market.[139] This preference for the "free" reign of the market is nowhere more apparent than in the recent major World Bank report on poverty in India. Here the World Bank launches a frontal attack on India's continual attempt to regulate food prices through the FCI and the PDS by stating that:

> *The underlying principle of the proposed policy towards maintaining self-sufficiency that also ties farmers to low-value rice and wheat production will come at the cost of efficiency. The continued large public sector role envisioned in foodgrain markets will crowd out private sector participation… Otherwise this* [subsidy] *implies that the government will continue to determine farm prices rather than the market.*"[140]

The World Bank's message is clear. It views the government's attempt to maintain food self-sufficiency as problematic because it hinders market forces. In the light of such a statement, the World Bank's involvement in drafting the TPDS seems not to come from a desire to extend the reach of the PDS, but to clear the way for private sector control of India's food system. The design of the TPDS gives reason to suspect that limiting the public sector involvement and expenditure outweighed concerns for improving access to food for the poorest, as the World Bank has done in other countries.[141]

With the TPDS universal access came to an end in favor of strictly limited access: eligibility was now contingent on whether a household was defined as falling below the poverty line (BPL) or above the poverty line (APL). This was in turn determined by household income, disregarding household size. The argument for introducing such distinctions was that it would target the poor more effectively. The BPL and APL distinction is however highly controversial. The validity of the survey data on which household eligibility is determined has been found to be highly questionable, with several methodological problems.[142] There is also evidence that several states have tried to minimize TPDS eligibility through downward adjustments of poverty lines.[143] The result of this "targeting" is that 60% of those previously eligible have been cut off from food subsidies.[144] Furthermore, even the few who remain eligible have experienced cuts. BPL households are now only entitled to a monthly subsidized food grain allocation of 10 kg. compared to the entitlement of 70 kg. per family under the universal PDS.[145] For a five person household such rations only provide 12% of the monthly food grain requirements, forcing them to procure most of their food through private markets where prices are higher.[146]

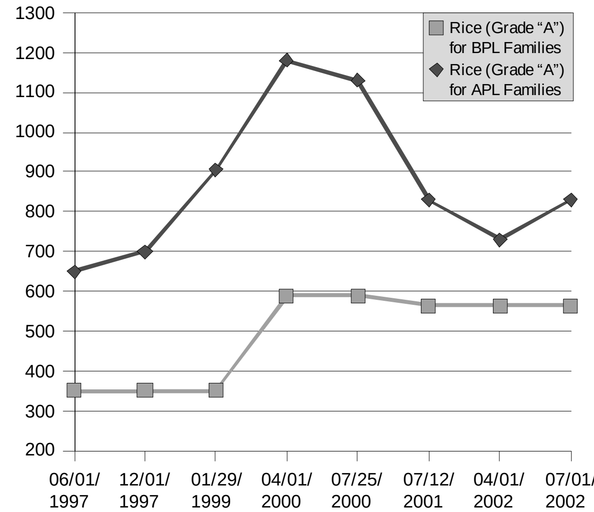

*Figure 15 - Central Issue Price for Rice Grade *A* for APL and BPL Households (Source: Department of Agriculture and Cooperation 2003)*

For APL households things are even worse. Because of the poverty definitions used to determine TPDS eligibility, many low income households have been completely cut off from food subsidies. APL households can still purchase food through the TPDS, but at non-subsidized prices with the additional new government-sponsored proviso that APL families have to cover the cost of procurement, storage, transportation, and administration of grain, as well as its actual farm-gate procurement market price. This has, predictably, led to prices for non-subsidized food grains available through the PDS to rise above official market prices. [147] In the period from June 1997 to April 2000 wheat prices available to APL families through the PDS increased from Rs 450 to Rs 900 .[148] Rice Experienced the same drastic price increase (See Figure 15 and Figure 16) This is a doubling in two years and far above wholesale price increases.[149] The increase in food grain prices for APL families is linked to the increase in farm gate procurement prices as well as the quantitative increase in FCI procurements. By introducing higher prices for APL families, the government attempted to regain some of their expenses from grain procurements by overcharging poor consumers.

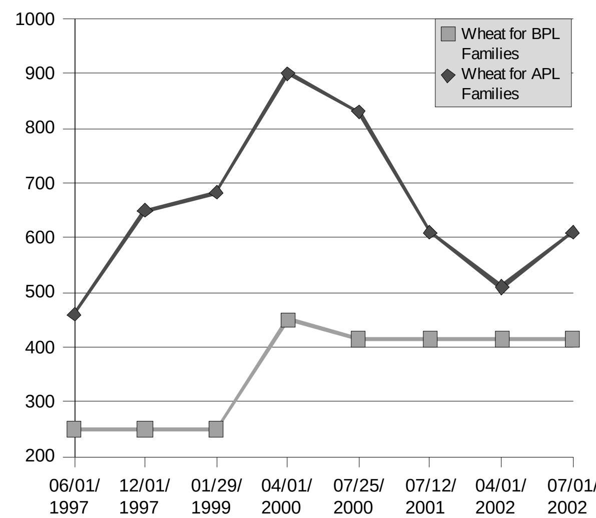

Figure 16 - Central Issue Price for Wheat for APL and BPL Households (Source: Department of Agriculture and Cooperation 2003)

If the underlying motivation behind the reform of the PDS was to reduce the public's role in food distribution and force the poor into the hands of private traders, the success has been noticeable. Under the TPDS public food distribution has been reduced from 17.2 million tons in 1997 to 13.2 million tons in 2001.[150] If, on the other hand, the aim was to reach the poor then the system has utterly failed.[151] There appears to be no major indication of improved access to the TPDS for poor rural households, the group that the revised system was supposed to serve. Instead, even the poorest are now forced to purchase food grains through private outlets.[152] Rather than improving access to food for the poor, the TPDS has prioritized cost-reduction by cutting off millions of low-income households from affordable food.

While the PDS underwent drastic reforms, the FCI hobbled along supporting domestic commercial farmers. The FCI, as we noted earlier, also received heavy criticism, but unlike the PDS, the FCI has increased its budget. The commercial farmers, from which the FCI purchases excess grains to maintain buffer stocks, have faced rising costs and declining revenues under economic liberalization. Unlike the many low income consumers, producers include a handful of powerful groups, including commercial farmers. In order to accommodate the economic interests of this small but powerful minority, the FCI raised purchase prices and increased purchase volume through the 1990s. By 2002, the FCI had accumulated buffer stocks of almost 70 million tons of food grains.[153] More grain was in storage than ever before.

This has lead to a paradoxical situation where public food stocks are burgeoning while the people's access to these stocks through the new TPDS has been drastically reduced. The negative effects of these reforms came to light in the late 1990s. Famines and starvation deaths, which the FCI and PDS were established to prevent, were reported in Orissa, Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, Maharashtra and Bihar, and Gujarat.[154] The 1990s became a decade in which "*hunger amidst plenty*"[155] became commonplace in India's countryside. The Public Distribution System, which averted famine during the severest drought of the century in 1987, failed to do the same at a time when food stocks where at a historical high. This is a situation disturbingly similar to the political and economic circumstances of the great famines in the 19th century, when British laissez faire policies caused the starvations deaths of more than 20 million Indians despite sufficient food supplies.

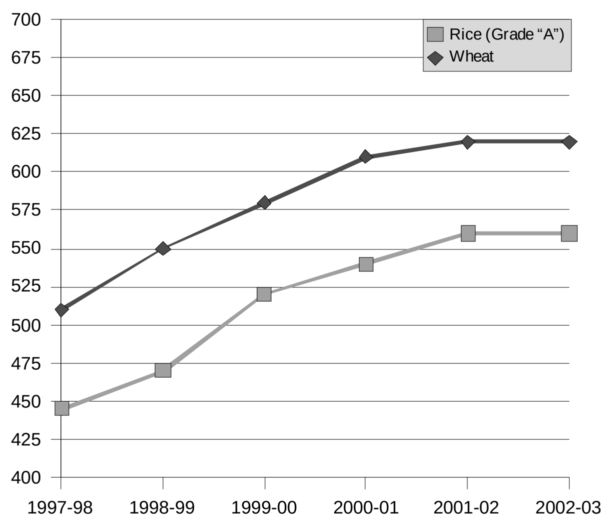

Figure 17 - Minimum Support Price for Rice and Wheat (Source: Department Agriculture and Cooperation 2003)

Popular Resistance to World Bank Policies
The perversity of India's current situation has not remained unchallenged. In October of 2002, the All India Women's Association (AIDWA) held meetings and demonstrations in Uttar Pradesh to demand food security. Protestors broke locks and stormed into the office of the ADM (Civil Supplies), holding a discussion with the ADM himself about the state's ration system and the poverty among the members, their families, and 810 families that they have surveyed about the rationing system. The President and General Secretary of AIDWA then traveled to more than 20 villages to hold meetings with the women of the 5 districts. A particular complaint they held was over the change in the Public Distribution System, from a universal format to the "*unfair "Targeted" system that, as a result of the change and of the recent drought, had caused widespread 'famine-like conditions.*'" At the Sangharsh Sabha convention in April 2003 AIDWA stated that "*...this national convention condemns the current food policies of the Government of India that are fashioned by the conditionalities of the WTO (World Trade Organization), the World Bank, and the IMF (International Monetary Fund)… These include the dismantling of the public distribution system and leaving such a crucial issue as food security to the profit-based free market.*"[1] (*Source: AIDWA (All India Democratic Women's Association). "AIDWA Struggle for Food Security in UP." New Delhi: AIDWA, 2002.)*

The lack of political will to accommodate the needs of the poor is one of the most disturbing political tendencies in the 1990s. The changes in India's food system under the banners of economic liberalization represent a move away from assuring food access for the Indian population towards accommodating the interests of capital. The obvious neglect of India's poor became even more baffling when India, in the hopes of recouping some of the huge costs associated with procurements and storage, exported 17 million tons of food grains between April 2002 and June 2003.[156] With half the population undernourished such moves seem deplorable.

The public food system may not have been optimal prior to reforms, but the World Bank's recommendation to eliminate the FCI and PDS seem ill advised. There are alternatives to neoliberal reforms. For example, India's poorest producers, as part of their membership of the international peasant federation Via Campesina, have proposed a systemic overhaul of the food system in which producer support plays a key role. This overhaul has been dubbed the 'food sovereignty' approach, and it advocates strong democratic control over the food system by producers, communities, and consumers.[157] With sufficient political will — the sort of will that accompanied the Green Revolution for example — the FCI and PDS can be vital in delivering on the human right to food. Where they have worked, they have worked better than anything else, and where they have been withdrawn, the neoliberal alternative has failed and swelled the ranks of the hungry.

TAKING STOCK

India's public food system has since its inception in the 1960's faced immense problems caused by corruption and inefficiency. It has been the target for some of the World Bank's most fierce attacks in its critique of state-led development in India. Nevertheless, it has prevented famines and serviced more than 80 million people at its peak. The reforms of the PDS in the 1990s have only caused a troubled system to become worse. The new TPDS has been a disaster. While the essential problems of corruption and rural reach have not been solved, it has cut off access to subsidized food for millions of households. The government, in its attempt to please the World Bank, is now more concerned with economic efficiency than with feeding a population where 208 million people are undernourished. The World Bank however, is still not satisfied. It is clear by now that they prefer to dismantle the public food system altogether. The Indian government is at a crossroads. Are they to rule in favor of the millions of people that go to bed hungry everyday or will they continue to follow World Bank recommendations? The government of India must start to reconsider to whom they are responsible.

PART IV – SHINING INDIA: LEAVING THE POOR BEHIND

In Part II, we saw how the costs and benefits of neoliberalism have been unevenly spread in India, and saw strong evidence to suggest that the Indian government and the World Bank were being misleading in their laudatory appraisal of the benefits of structural adjustment in India. In an effort to better understand the conditions of India's poorest people – namely, farmers – we examined in Part III the various neoliberal policy changes that specifically impacted agriculture and access to food. We found that public funding for agricultural and rural activities has decreased, and private funding has not compensated in level or distribution. Employment levels are declining, and agricultural land is increasingly devoted to export crops, leaving the poor with limited access to their staple foods. Moreover, some of the most important programs for poverty reduction—rural development schemes and the Public Distribution System—have also been altered following neoliberal ideology, further reducing support for the most impoverished. Inequalities have become further entrenched, rural infrastructure is scant, rural employment options are few, what private funding there is bypasses the most needy in favor of the most profitable, and access to food is increasingly limited—due to both changes in agricultural composition and lack of public support. In this final section, we try to discern exactly how the policy changes that have created this situation have effected the lives of the poor. First let's briefly review the composition of small farms in India and their importance in food production. The Food and Agriculture Organization of the United Nations points out,

> "*Small-holder farmers - defined as those marginal and sub-marginal farm households that own or/and cultivate less than 2.0 hectare of land - constitute about 78 per cent of the country's farmers (at Agricultural Census 1990-91). These small-holders owned only 33 per cent of the total cultivated land; their contribution to national grain production was nonetheless 41 per cent. Their contribution to household food security and poverty alleviation is thus disproportionately high - and is increasing. Moreover, as the national population increases, so does the number of small-holdings.*"[158]

Yet the circumstances of these small farmers have not been improved by neoliberalism. In Table 6 we can see that overall the percentage of people living Below the Poverty Line (BPL) on farms has declined, regardless of farm size. Beyond the clear fact that larger farms were richer, there are a few other worrisome trends for the poorest and smallest farms. Despite the promising signs of decreased poverty throughout the 1980s and mid-1990s, between 1996 and 1998 we see the beginnings of an across the board *increase* in poverty. Given the trends outlined at the end of the previous section, we would expect that poverty increased through the end of the 1990s and beginning of the 2000s. Moreover, as previously mentioned measuring poverty with the official poverty line can be suspect, as this goalpost has been shifted over time. As an income-based measurement, the poverty line indicator cannot reveal the true welfare of the rural poor. Income is, in any case, a proxy measurement for that cluster of phenomena that include hunger, humiliation, and disempowerment that constitute the condition of poverty.

Year	Proportion (%) of poor persons					
	Sub-marginal	Marginal	Small	Medium	Large	All farms
1983	54	46	41	35	25	42
1988	39	30	23	17	11	31
1993	38	27	19	14	13	29
1994	31	27	23	17	13	25
1995	25	21	18	17	15	21
1996	24	21	16	14	10	20
1998	28	23	18	15	10	22
Rate of Decrease (%/year)	5.1	4.9	5.5	5.1	4.6	4.8

Table 6 : Proportion of poor people on farms, by farm size (Source: Singh 2002)

While income is a useful way of measuring some of this indignity, there are other measures. In the absence of complete and robust data on income, we can look elsewhere for more direct signs of improvement in welfare: nutrition. While large chunks of the population may be scraping by, just over the threshold of the official poverty line, the information on actual hunger in India tells a more complete story. It is a story told even by those supportive of the market. Gill et al (2003) note the 'silent violence of malnutrition' in India, and its effects:

> *Hunger [in India] tends to be chronic rather than acute, with 233 million (1998–2000) undernourished in calorific and micronutrient terms (against 215 million in 1990–2), with particular problems among women, adolescent girls and under-fives. Undernourishment is severe among Scheduled Castes and in those rural areas weakly integrated into markets, and has marked seasonal patterns.*[159]

As we have seen, though, it is precisely the integration into markets that has led to the current impasse, and in the following section we examine what impacts the changes in markets have led to. The first important feature to note about India's dietary changes is that not all of them are linked directly to neoliberalism. If we look at the trends in fat and protein consumption (Figure 18 and Figure 19), for example, we see features familiar to anyone looking at U.S. nutritional trends . While the increased consumption of fats and reduced protein intake accelerate under neoliberalism, the trend itself predates the introduction of neoliberal economic policies. This should not be entirely surprising - a great deal of energy was spent developing Indian-made alternatives to, for example, U.S. soft drinks, in an effort to keep up while not ceding markets to U.S. companies. Similar stories might be told in the dairy and snackfood industries. The irony of creating indigenous national alternatives to unhealthy foreign alternatives is one alive and well in India today. Indeed, as we conclude, the shroud of nationalism has been used to cover the deteriorating conditions of the hungriest Indians.

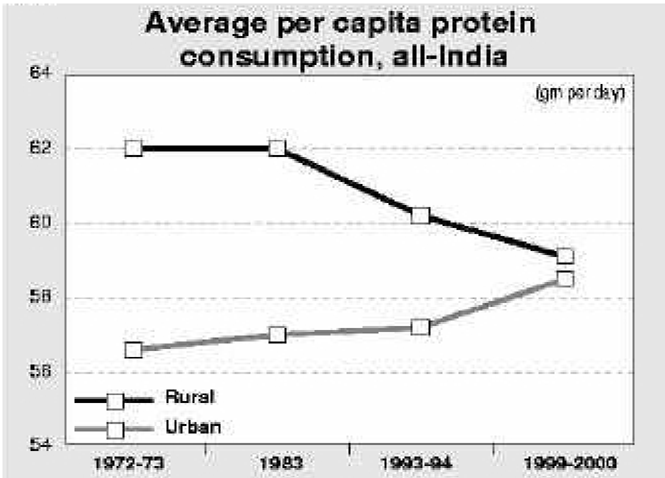

Figure 18 - Average Per Capita Protein Consumption (Source: Chandrasekhar, 2003)

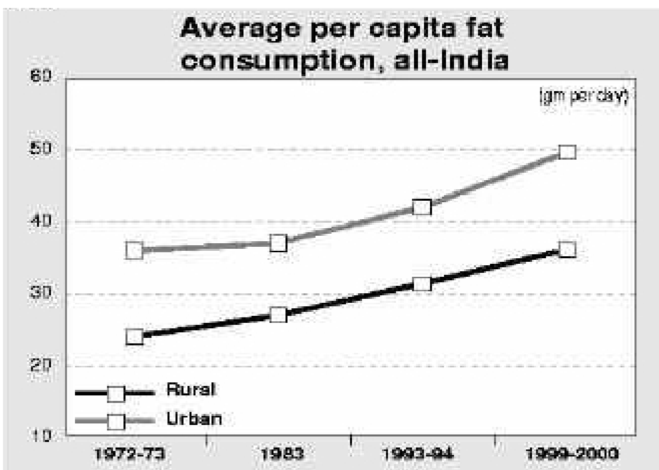

Figure 19 - Average Per Capita Fat Consumption (Source: Chandrasekhar, 2003)

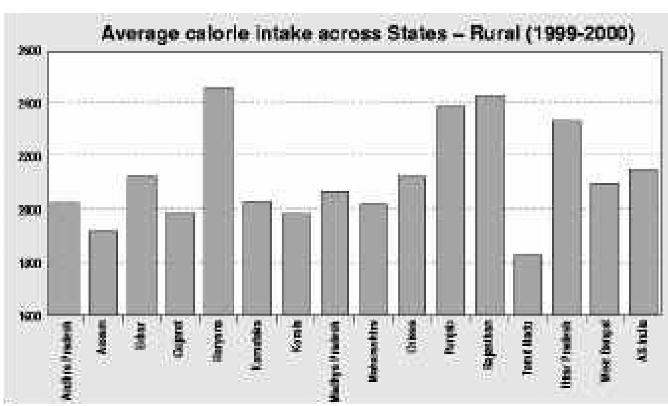

Figure 20 - Average Calorie Intake Across States - Rural 1999-2000 (Source: Chandrasekhar, 2003)

Admitting that there is some background noise in the data, we can still observe some basic trends and thresholds within levels of hunger in India. Over the 1980s, and accelerating through the 1990s, there have been structural shifts in the quality and quantity of food that the poorest people in India have been able to access, and this is a result of the shifts in the price of available food. To see this, let's first begin with a fairly easy to understand direct measure of hunger – calorie intake. Comparing across states, in 1999-2000, the average daily intake in urban areas shows some variation, but not much, with a median in the 2,100 calorie range. To put this into perspective, the U.S. government recommends 2,350 calories per day for the average adult, though active people, adolescents, and pregnant women need more. In other words, there's convergence around the low end of calorie intake.

In rural areas, we start to see a more disturbing trend in these patterns, with much less convergence, and with a mean daily calorie intake around the 2,000 level (See Figure 20). For workers in predominantly active rural jobs, this clearly falls below acceptable thresholds.

If we start to disaggregate this information by farm size, we arrive at more worrying conclusions. Singh et al only provide data until 1993, but it's a helpfully indicative point of departure. Table 7 shows the extent to which under-nourishment is prevalent on farms in India, with smaller farms being prone to proportionately higher levels of undernourishment. We observe, too, that hunger has increased even on large farms in the early 1990s, suggesting that the relationship between wellbeing and farmsize is not straightforward. Singh et al also note a slight disjuncture between income, farmsize, and hunger, which suggest that there are other mediating factors, such as food availability, the public distribution system, and rural extension services.

Year	Proportion (%) of under-nourished persons					
	Sub-marginal	Marginal	Small	Medium	Large	All farms
1983	45	31	25	21	15	29
1988	29	21	16	14	10	23
1993	32	24	17	12	12	25
Rate of decrease (%/ann)	3.3	2.5	3.8	5.4	2.2	1.5

Table 7 : Incidence of hunger in rural households: At 1983, 1988, and 1993; Various farm-size categories; Computed from household data in National Sample Surveys (Various Rounds - 1983-1993) (Source: Singh 2002) Note: Using a threshold energy intake of 1,800 kcal/person.day.

Of course, if households on large farms are affected by changes in the public distribution system and consequent changes in the price of food, poor families with less disposable income are hit proportionally harder. The increase in the price of grains has taken a particularly severe toll. Poor families tend to eat more cereals than average, and get a higher level of nutrients and calories from cereals than other groups – cereals account for about half of food budget expenditures in poor households.[160]

For example, the increased effective cereal prices have meant that the share of the adult population in India with Chronic Energy Deficiency is at 50% in Gujarat, one of the wealthier states. This is information that comes directly from the Indian government's own Department of Food and Public Distribution.[161] After a broad survey of the data, the Department comes to the following conclusions, which are worth reproducing in full:

> "*This behaviour of cereals prices is noteworthy for a number of reasons. First, farmers have received lower prices for cereals after 1999-2000, but from a high base. Second, high and rising cereal prices during the 1990s, especially in the later half of the decade, has dampened diversification of agricultural output and also prevented reduction of the cereals share in household budgets. Third, and most important, this has had an adverse impact on the nutrition condition of the poor for whom cereals still account for almost 50% of food expenditure and over 70% of calorie intake. That this was significant has already been suggested by the evidence from Food Balance Sheets which not only show no increase in per capita cereals availability or per capita calorie intake since 1991 but also their actual decline since 1997, reversing the trend during the 1970s and 1980s. Moreover, there is also evidence that the 1990s saw much more erratic outcomes than the earlier trend reduction during the 1970s and 1980s in both child malnutrition, as measured by weight and height for age[1[1]], and acute demographic stress, as measured by sudden changes in fertility and adult mortality in cereals deficit states[1[2]]. The NSS [National Sample Survey] shows a*

*sharp reversal during the 1990s of an earlier increase of cereals and calorie consumption among the poor (Chart 2.9) and, this also supports the general conclusion that **the nutritional condition of the poor worsened during the 1990s**."(emphasis in original)*

But how, then, are we to square this particular circle? The poor are getting hungrier but the country's getting significantly richer. We saw in part II that income-based metrics of poverty are suspect in India, because of the statistical manipulations around them. The Department of Food and Public Distribution offers further insight into similar processes with food data:

Most of these differences in the interpretation of available data on poverty, employment and rural income growth stem from the fact that although a considerable body of data do indicate worse outcomes post-1991, this is difficult to reconcile with the high rates of GDP growth which have been recorded during this period. Either it must be accepted that benefits of this growth have not percolated to most rural areas and to the poor, in which case there is no difficulty in accepting the evidence on cereals consumption and calorie intake. Or, a more complicated construct is necessary to explain actual outcomes. This involves the view that there has been a large change in patterns of production and consumption favouring horticulture and livestock which simultaneously created rural incomes, led to growth of transport and trade opportunities, and explains the consumption shift out of cereals; but that this was not being reflected adequately in either production or consumption data. In an effort to reflect this adequately, the share of fruits and vegetables in total agricultural production has been increased considerably in the latest series of National Accounts, and reference periods were changed in the NSS 55th round in a way which it was known would lead to higher estimates of food, particularly non-cereals food, consumption. Problems of interpretation have thereby led to changes in the data itself, making scientific assessment difficult.[162]

The preponderance of data seems to support the conclusion that the India's shining in GDP has not only failed to 'trickle down,' but been sealed off from the poor. And the poor are dying as a result. The most sobering example of how changes in the Indian agricultural economy have hurt farmers comes in the increased rates of farmer suicide.[163] Deshpande (2002), for example, follows the case of farmers in Karnataka, arguing forcefully that the combination of vanishing support structures for families, farmers, and communities, with the retreat of welfare services, infrastructural extension services, and safety nets within the household, have been responsible for increased triggering of suicide. Simiarly, Diwakar follows the story of farmer suicides in Andra Pradhesh, where many farmers had recently switched to planting hybrid seeds, bought from seed companies rather than saved from a previous harvest. Purchasing these costly inputs puts a financial burden on farmers, but the promise of higher yields and profits excuses what they hope will be short-term debt. But cotton farmers in Andhra Pradesh have not experienced the benefits promised—but not guaranteed—by the seed companies, and in 1997 much of the cotton in A.P. did not even produce bolls.

Economic Liberalization and Small Farmers

While trade liberalization may make farmers more vulnerable, poor farmers face a formidable set of challenges to success without liberalization. The following first-hand accounts from Pushpa Surendra, a farmer in Mysore, identify a lack of access to infrastructure and bargaining power as major problems for farmers. Surendra places part of the blame on the Indian government for failing to focus on food security, farmers' livelihoods, and employment stability. She discusses the issues that arise for poor producers and consumers because post-harvest technologies—like electrical dryers and storage facilities—do not exist at the rural village level. Throughout India they are overwhelmingly the property of private businessmen with their own disposable capital, who wield this power over small farmers. The only post-harvest technologies currently available to small farmers are chemicals that are poisonous to consumers. Farmers must choose between using dangerous chemicals and selling their produce right away, at unacceptably low prices. Surendra points out that government aid in setting up community drying and storage spaces close to the fields would be much more effective than putting money into research institutes in cities to develop newer technologies.

Surendra also shows the price bind that small farmers face with an example from the state of Karnataka, in southern India. In Karnataka, the Horticultural Producers Co-operative Marketing Society (HOPCOMS) purchases produce from farmers and markets it at regulated prices. However, in recent years produce at HOPCOMS outlets are of a much lower quality than the produce the cooperative itself demands of farmers, suggesting that officials take the best fruit and sell it to private shops, who then vend it at much higher prices. This scenario clearly does not benefit the small farmers who work hard to meet HOPCOMS standards, nor does it benefit poor consumers, who have a right to quality food. Surendra notes how farmers are additionally disadvantaged because they are forced to sell their produce quickly to prevent the products from perishing, which means they essentially have to agree to whatever prices HOPCOMS demands.

Finally, Surendra discusses how contractors pick fruit when prices are high and not when the fruit is ripe, resulting in lower quality produce. Chemical ripening procedures used to compensate for this endanger consumers. She calls for the Indian government to focus on village-level issues of storing, preserving and marketing food for food security purposes. She calls in addition for investment in essential infrastructure such as roads and bridges rather than funding bio-technological research aimed to improve the quality of exports. Surendra's insights therefore address issues of inequality between large businessmen or farmers who can afford post-harvest technologies and smaller farmers, as well as issues of middlemen and intermediary institutions that respond to prices and markets at the expense of farmers' and consumers' livelihoods. These scenarios all demonstrate how specific institutions and policies, combined with a certain degree of governmental neglect toward the agricultural sector (which is in itself a policy), have compounded to make small farmers' lives difficult. (*Source: Surendra, Pushpa. Bitter Fruits of Harvest www.Indiatogether.org [online], April 2003, 2002. Available from http://www.indiatogether.org/agriculture/articles/pushpafruits.htm.*).

The combination of crop failure and debt has driven many farmers to suicide. Though Andhra Pradesh is the area with the highest concentration of farmer suicide, farmers in other regions who have experienced crop failure with commercial crops that require chemical inputs have resorted to the same tragic end.[164]

The disturbing suicides among Indian farmers facing financial crisis illustrate the complex interplay of forces, including liberalization, that affect small farmers. In part, we can attribute the farmers' situation to their use of expensive and ultimately unproductive hybrid seeds. These seeds were in wide use in India by the late 1960s, but at that time, the government was involved in their development and distribution and helped to bail out farmers in the case of crop failure. Now, however, because of the structural adjustment of India's economy, the government no longer guarantees credit or an income to farmers whose crops fail.[165] In addition, an analysis by Vandana Shiva and Afsar Jafri argues that liberalization has led to fewer restrictions on seed corporations, allowing them to gain more access to farmers in all areas and to convince farmers to buy their hybrid seeds. The plants from hybrid seeds produce infertile seeds, necessitating annual purchase of new seeds. The hybrid varieties may or may not (in the case of Andhra Pradesh) produce more profitable plants, but either way the farmer must pay more to plant them. In this way, an old technology combines with a new policy environment to increase the risk for farmers.

According to Shiva, liberalized agricultural policies in India have actually increased the risk of crop failure. She identifies privatization, which has accompanied trade liberalization as part of the same set of reforms, as a potential danger. Privatization has occurred in the seed sector in India, and by the process described above, has resulted in farmers shifting from polyculture to monoculture and from pollinated crops to hybrids (i.e. seeds that are used once, producing infertile plants).[166] Monoculture causes greater pest problems, which necessitates the use of more pesticides, which obligates farmers to purchase additional inputs. This is precisely what has happened in Andhra Pradesh, where the shift from polyculture of oilseeds, pulses, and millets to monoculture of cotton has been very rapid.[167] Shiva observes: "While the benefits of globalization go to the seed and chemical corporations through expanding markets, the cost and risks are exclusively born by the small farmers and landless peasants."[168]

LIBERALIZATION AND DISADVANTAGED GROUPS

While economic inequality, rural poverty, and hunger seem to have been exacerbated for many by economic liberalization, rural women and Dalits, the two most marginalized groups in India, have been especially affected. As mentioned in Part II, these two groups are subject to higher levels of poverty, higher levels of illiteracy, lower levels of nutrition and health care. They often work as casual laborers performing the least desirable tasks and are paid the lowest wages.

Economic liberalization, and the subsequent reduction in social sector expenditure, has hurt both groups. As the lowest economic and political class they are more dependent on Government support than any other group. They rely on public support for employment, education, and access to food. All three areas have been negatively affected by economic reforms. The stagnation in agricultural growth has affected women and Dalits to a much higher extent than any other population group as they make up the majority of agricultural laborers. The effects of liberalization of agriculture on employment patterns are however a little complex and requires a deeper investigation, so let us look at employment trends for women in the agricultural sector. As already mentioned, agriculture is where the large majority of economically active women find employment. The number of women working in the formal rural sector has gone up significantly between 1991 and 2001. More than 15 million additional women and girls are now employed in the agricultural sector either on their own farms or as agricultural laborers. There is somewhat uncertainty to this reported increase in female labor participation. The official explanation is that improved survey methods have enabled to capture female participation better.[169] There is however also evidence that women increasingly are being employed in labor intensive agricultural production such as rice cultivation, but they are also increasingly taking over labor intensive activities on their own farms. This increased work burden for women is due to an increased number of males finding work in non-agricultural activities. The increased participation of women in the agricultural sector is not a positive sign. It reveals that while men are leaving the struggling agricultural economy behind, women are increasingly taking over the labor intensive jobs in agriculture, but at lower wages than men, and in many cases below minimum wages.[170] Female workers are thus moving in to a struggling sector where wages are being squeezed. As a result, wage disparities between men and women have increased during the 1990s. Using 2001 census data, Chandrasekhar and Ghosh (2002) found that except for rural public workers, female-male wage disparities have increased from 1993-94 to 1999-00.[171]

Increased wage disparities are caused by direct discrimination against women, but also by the “feminization” of the agricultural sector where international competition drives commercial farmers to squeeze production costs i.e. wages. The use of casual labor has increased and main employment (involvement in economic activity for more than half the year) has collapsed.[172] The number of rural female marginal workers has doubled from approximately 24 million to more than 50 million between 1991 and 2001.[173] This means that in the 1990s, women have taken over the most labor intensive and lowest paid jobs in the agricultural sector especially within export-oriented areas such as plantation crops, dairy and rice production. Increase international competition has driven many commercial farmers to invest in machinery to increase mechanization and reduce production costs. With mechanization, women are the first workers to be fired, as they are considered unfit to operate machinery.[174] Women have become the disposable factor of production in Indian agriculture. Off season wage employment are also being eliminated with the cuts in public rural employment schemes. Combine this situation with the elimination of subsidized food grains through the PDS to large parts of the population and the situation of the most disadvantaged groups is precarious. Fewer employment opportunities combined with higher food prices is in many cases a fatal combination for members of these groups.

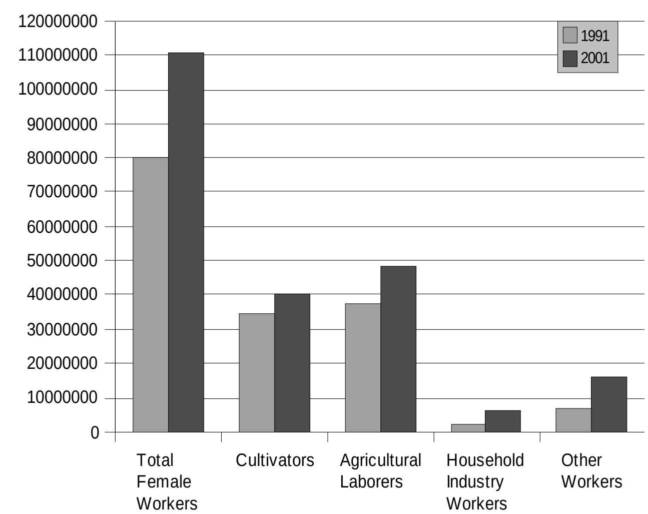

Figure 21 - Female Employment - Rural - All India (Source: Office of the Registrar General India 2002)

The retraction of government expenditure is also affecting access to education which otherwise *may* increase social mobility among disadvantaged groups. (We say "may" because higher education does not necessarily mean better employment opportunities. Even well-educated Dalits still suffer from discrimination when it comes to employment.) There are however some government programs intended to empower Dalits but with economic liberalization and the government's effort to reduce public spending, these have been reduced. For example, scholarships and freeships, as well as reservations within education institutions, which historically have been an important component of Dalit social mobility, have been negatively affected by freezes in government support for education.[175] As many universities have experienced financial problems due to less government support, Dalit scholarships have been among the first programs to be cut. The retraction of public support for disadvantaged groups and the advancement of the private sector economy is indeed very problematic. Private capital is concentrated primarily in the upper caste groups and they are very unlikely to exercise any sort of affirmative action for Dalits. Private sector development is leaving the poor behind generally, but especially fails to reach those groups that require special consideration.[176]

The efforts to promote private sector growth and simultaneously cut public expenditure by reducing rural development programs have not come into being without resistance from popular advocacy groups. In 2002 Dalit intellectuals convened in Bhopal and called for increased reservation of public positions in order to make the presence of Dalits in official positions reflect their relative share of the population. In several rural villages where oppression of Dalits is most severe, people have staged protests demanding equal rights. In many cases these protests have been fatal as upper caste militias have assaulted, mutilated, and raped Dalits in the attempt to scare them away from their demands. The demands are hardly radical. With the elimination of many government services, these people only want a fair share of the resources necessary to make a living in the private sector, but they also want access to better employment opportunities, health care, education and access to basic services, all areas in which public intervention is essential. Women have staged large protests against the retraction of government services calling for a more comprehensive social system. In 2002 the All India Democratic Women's Association (AIDWA) arranged demonstrations and protest in Uttar Pradesh, convening poor landless women to demand increased PDS rations and food-for-work programs.[177] Together these groups are calling for the universal access to the PDS, health care, primary education, and reinforcement of positive discrimination for the most disadvantaged groups.

Currently there is little indication that the government is heading in such a direction. With the World Bank, WTO, the IMF, EU, and the US breathing down their neck, the government seems more interested in the efficiency of abstract market forces than the very real suffering of India's poor. It is difficult to see how private sector financing would find any interest in India's disadvantaged groups. Civil society movements are rallying for more equitable distribution and increased government intervention in the country's economic and social spheres, but in the attempt to encourage private sector activity, the government looks more inclined to give into the demands of private capital than to the demands of the poor. Meanwhile economic liberalization is widening the gap between the wealthy and the poor. Winners win while losers lose the little they have.

CONCLUSION

The myth of 'Shining India' benefits many people, both inside India and externally. The World Bank, sponsors of this vision, are keen to endorse it, and U.S. politicians concerned with the inevitable economic consequences of trade liberalization are happy to paint India as the new home of American jobs. In this report, we've tried to set the record straight. It's true that there has been growth in the information technology industry in India, largely as a result of a deep government commitment to middle class education. It's true that there has been some reduction in the level of poverty over the past 20 years. This has not, however, been accelerated by neoliberalism. In fact, the policies since 1991 have hit the poor hardest, with levels of hunger increasing with the marketization of the PDS and the reconfiguration of agrarian relations. Usta Patnaik puts it well:

> "*The increased inequality of access in turn is the outcome of two sets of processes. The first is a massive cut in purchasing power with the poorer majority of the population, especially in villages, which itself has two components – contractionary, public-expenditure-reducing economic reform policies in the nineties resulting in a collapse of employment growth and hence incomes, and sharply falling farm prices for commercial crops both globally and locally from 1996-7… The second process is implementation of targeted food subsidies [through the Public Distribution System], which has been "an utterly disastrous policy".*"[178]

The waning political will to tackle the persistent poverty and exploitation in rural areas leads us to a bleak prognosis. Indian agriculture has always been a very unequal affair. Even before colonization, there was rampant inequality, arising both from the feudal structures of agriculture and regional differences. Under British rule many of these inequalities were further exacerbated through heavy taxation of even the smallest farmer. Despite half a century of independence, these inequalities are very much alive today, and getting worse. The arrival of the World Bank and International Monetary Fund strengthened the hand of those within the Indian government who believed both in the credo of export-oriented agriculture and in the power of pure market forces to 'lift all ships' out of poverty despite the lack of evidence that this has worked in the Indian case. We conclude that the absence of strong political leadership, the erosion of serious redistributive mechanisms, and the deepening exploitation of women in the promotion of neoliberal India all point to a deterioration in the situation of India's poorest.

Economic liberalization has not improved the lives of the millions of rural poor. In fact, these policies have created a kind of apartheid in the economy. The wealthy seem to have detached their lucrative sector from the rest of the economy, and the government seems to care less about rural redistribution, yet the poor are available as cheap labor in both rural and urban India. As the Indian government has reduced public support for agriculture, rural development programs, and food subsidies the rural poor have lost some of the most essential means of survival. Farmers can no longer access affordable credit, and find themselves competing in international markets against heavily subsidized competitors, with the historically low levels of support that they enjoyed in the past being thinned yet further. Rural infrastructure investments are left to private investors who see little profit in investing in poor areas. Agricultural employment and real wages have declined. Non-farm employment programs, an essential income source for the poor are being eliminated or privatized. Universal access to affordable food has been eliminated and only a fraction of the poor are now eligible for food subsidies. Economic liberalization has instead favored a small class of commercial farmers, multinational corporations, and urban service sectors. Neoliberal policies have ghettoized the poor into particular states, into rural areas, and into increasingly stratified social divisions.

Perhaps the greatest tragedy is that there is nothing inevitable about this state of affairs. India won its independence with a vision of a country in which all were able to feed themselves. The policies implemented under Nehru, and under Indira and Rajiv Gandhi, were far from perfect, and were in many ways crafted by elite pressure. Yet, as Mahatma Gandhi argued, "Economics that hurt the moral well-being of an individual or a nation are immoral." The cleaving of the Indian economy along lines of gender, sector, geography and caste is a symptom of this kind of economics, and it betrays the spirit of Indian independence. The gamut of social movements in India today that struggle to keep this spirit alive are faced with a daunting task. Yet it is vital that they succeed. The past ten years have hurt too many, and at too high a price, for the lessons of economic liberalization to be ignored.

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[123] For a more comprehensive historical account of food price policies in India see: Sukhatme & Abler 1997.
[124] The PDS was set up following the Bengal famine in 1943 and later incorporated as a subsidiary of the FCI.
[125] Currently rice, wheat, sugar, edible oils and kerosene are offered.
[126] Devinder Sharma, *Selling Out: The Cost of Free Trade for India's Food Security* (London: UK Food Group, 2000), 7.
[127] Ibid.
[128] We refer to domestic commercial producers here in order to distinguish between the different agricultural sectors in India. Most commercial producers are located in a few “Green Revolution” states such as Haryana and Punjab. These farmers are few have developed into a powerful political lobby. The “other” agricultural sector comprises the majority of India's rural population who are mostly subsistence farmers. The establishment of a class of commercial farmers during the Green Revolution will be treated in part IV.
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