GLOBALISATION OF AGRICULTURE AND THE GROWTH OF FOOD INSECURITY

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Can Globalisation of agriculture provide food security?

The Draft Plan of Action for the UN Food Summit to be held in Rome in November categorically states that 'trade is vital to food security'. The reference here is not to the local or national trade in food which has been taking place for centuries, but to global free trade in food which is being pushed by Structural Adjustment Programmes (SAP) and the Uruguay Round of GATT.

Trade liberalisation and globalisation of agriculture is meant to increase production of food, increase efficiency of food production, improve the economic situation of farmers and improve patterns of food consumption. However, the evidence presented by the experts at the international conference on "Globalisation, Food, Security and Sustainable Agriculture" held in Delhi on 30th and 31st August showed that globalisation was deepening food insecurity world-wide.

In country after country trade liberalisation is leading to a decline of food production, productivity, conditions for farmers in the North and in the South, coupled with food insecurity for the consumers of both the North and the South.

External liberalisation vs internal liberalisation

External liberalisation

Liberalisation of agriculture can be either internal or external. External liberalisation is characterised by foreign trade and foreign investment-driven liberalisation. External liberalisation serves the external interests. Agricultural liberalisation under SAP is an example of such external liberalisation. It consists of the following elements.

- liberalising fertiliser imports and distribution as well as deregulating domestic manufacturing and the distribution of fertilisers
- removing land ceiling regulation
- removing subsidies on irrigation, electricity and credit and creating conditions to facilitate the trading of canal irrigation water rights
- deregulating the wheat, rice, sugarcane, cotton and edible oil and oilseed industries
- dismantling the food security system
- removing controls on markets, traders and processors, and subsidies to co-operative's
- abolishing the Essential Commodities Act
- abolishing the general ban on futures trading
- abolishing inventory controls

- abolishing selective credit controls on inventory financing
- treating farmers' co-operatives on an equal footing with the private sector.

The above elements of the SAP are methods for removing centralised control over agriculture and consolidating it further in the hands of Agribusiness Transnational Corporations (TNC's) such as Cargill, Pepsico etc; who are emerging as the new Zamindars, controlling not just land use, but water use and seeds.

The Agreement on Agriculture of the World Trade Organisation (WTO) is another example of external liberalisation. Agriculture has never been part of GATT. It was introduced during the Uruguay Round. The Agreement on Agriculture has three sections :

- Export competition or export liberalisation
- Market access or import liberalisation
- Domestic support or reduction of domestic subsidies

In addition, the Agreement on Sanitary and Phyto Sanitary Measure as well as the Agreement of Trade Related Intellectual Property Rights (IPR's) also affect agriculture and food security.

Internal liberalisation

Internal liberalisation of agriculture is liberating agriculture in the direction of ecological sustainability and social justice. This includes:

- freeing agriculture from high external inputs such as chemical fertilisers and pesticides and making the transition to sustainable agriculture based on internal inputs for ecological sustainability
- freeing farmers from capital intensive farming and debt
- freeing peasants from landlessness
- freeing farmers from fear of dispossession by monopolies of land, water and biodiversity
- freeing the poor from the spectre of starvation by ensuring food as a human right
- freeing rural people from water scarcity by ensuring inalienable and equitable water rights
- freeing knowledge and biodiversity from IPR monopolies
- rebuilding local food security, reinvigorating local markets

Internal liberalisation of agriculture is a pre-condition for food security while external liberalisation undermines food security.

The health and nutrition dimension

Without safe and nutritious food free of health hazards there can be no food security. Food security is a human rights issue from all the above perspectives. It includes the right to resources, the right to work, the right to cultural diversity, the right to health and the right to information.

Globalisation of agriculture is violating all components of food-related human rights. The rights of small producers to land, water and biodiversity are being violated by undoing land reform, by privatisation of water, and by monopolisation of seed and plant genetic resources through (IPRs). Ecological rights of all citizens are being violated by the spread of ecologically destructive industrial and factory farming methods. The right to work of small producers is being violated by the destruction of their livelihoods. The right to cultural diversity is being violated by the spread of an unsafe and unhealthy culture practised by many international companies. The right to health is being violated by factory farming methods and food processing methods that promote disease and ill health. The right to information is being violated by denying consumers the right to know what they consume. 'Reports from the Planet' presented at the conference gave detailed analysis and experiences of how globalisation is leading to the violation of the universal right to food security.

In her welcome address on Globalisation and Food, the author of this paper said that "the US and the other industrialised countries of the North are trying to change the meaning of food security from being a fundamental human right to participation in global markets, which excludes the large number of poor without adequate purchasing power". They are also trying to redefine food security to exclude food safety issues. Food security has always meant adequate, safe, nutritious and culturally appropriate food. While this meaning was inscribed in the earlier draft plans of action, it has been removed in the current draft (of the World Food Summit).

The fallacy of the "comparative advantage"

The logic of comparative advantage argues that a nation can enhance efficiency in resource use and hence, net welfare by producing and exporting commodities in which it is relatively efficient, and importing commodities in which it is not. However, there are five reasons why the theory of comparative advantage is fallacious when applied to food security in the context of globalisation :

1. Comparative advantage works when capital is nationally rooted and does not have free mobility across national borders. The structure of comparative advantage therefore breaks down in the free trade regime with free mobility of capital.
2. When it is more profitable to grow flowers than foodgrains, comparative advantage leads to a decline in food production globally. Every country needs food and no single country can substitute for the collapse of domestic food production and the consequent food insecurity in other countries, since food production unlike automobiles and T.Vs, is limited by land availability and climatic factors.
3. The category of 'efficiency' depends on the context in which it is measured. Financially efficient systems can be ecologically inefficient, and efficiency with respect to labour inputs is totally different from efficiency with respect to capital inputs.
4. The financial calculus used for the comparative advantage calculation in food is based on a fictitious and fixed 'international price'. Food prices are not stable and fixed. They are a function of imports and exports. When a large country like India stops domestic production and imports large quantities of a particular commodity on grounds that it is cheap on the international market, the international prices go up by the very fact of importing, undermining the comparative advantage. Prices can also be manipulated by the TNCs that have monopoly control on food and grain trade.
5. In free trade, it is not countries but corporations which export and import, and what is deemed 'efficient' for corporations need not be efficient for the countries in which they operate.

Globalisation and food insecurity in the South: - Shrimps, Flowers and Hunger

Field studies show that trade liberalisation is generates food insecurity on at least three levels. It is leads to:

- a transfer of resources from peasants to industry, displacing small farmers and creating new poverty as unfair contracts lock them into a new form of bondage

- a shift of land use from the production of staple foods to luxury and non food crops (cash crops) such as shrimps and flowers for exports
- a removal of food subsidies, lowering domestic consumption, and increasing food exports.

Resources and livelihood insecurity linked to alienation, the production insecurity linked to the decline in food production, and the consumption insecurity linked to the decline in consumption are all leading to food insecurity. A paper on Globalisation and Agriculture in India by this author, Ms Radha Holla and Ms Kusum Menon illustrated through field studies how food production was being undermined by trade liberalisation policies. Food growing land is being diverted to non-food crops such as flowers or luxury commodities such as shrimp. Farmers are being displaced on a massive scale and natural resources are being over exploited. Corporatisation of agriculture, which is being pushed under trade liberalisation as a successor of the Green Revolution, is leading to new poverty for small farmers, as unequal and unfair contracts lock them into a new form of bondage. Farmers of Punjab who, were contracted by PepsiCo to grow tomatoes received only Rs.0.75p per kg while the market price was Rs.2.00. First the farmers rejected PepsiCo and PepsiCo has abandoned Punjab and sold its tomato processing plant to a subsidiary of Levers.

Declining areas under foodgrains production

Dr Amitava Mukherjee, Executive Director, ACTIONAID India in his paper on International Trade and Food Security confirmed that the area under food crop production in India is on the decline, as is evident from the fact that the index for area under food grains (1981-82)= 100) declined from 100.7 to 97.3 between 1990-91 and 1994-95, while the index for the area under non-food crops increased from 120.0 to 125.7 during that period. Production of coarse cereals and pulses, the main food for the poor has shown a declining trend. As reported by Dr. Sulabha Brahme, the total production of cereals has declined from 10.74m tons in 1990-91 to 9.60 million tons in 1995-96 while the total requirement has increased from 13.74 to 14.08 million tons in the state of Maharashtra. In Gujarat, as reported by Dr. Darshini Mahadevia and Dr. Indira Hirway, the area under food grain has declined from 4.6 m.ha in 1990-91 to 4 m.ha in 1993-94. The area under wheat has declined from 71 m.ha to .48 m.h while the area under jowar has declined from .853m.ha to .376 m.ha.

Dr. Abhijit Sen of Jawaharlal Nehru University illustrated how liberalisation of domestic production and consumption of food is declining. Removal of food subsidies has led to a decrease in the purchase of food from the public distribution system. The off-take of rice had declined from 10.1 metric ton in 1991-92 to 6.9 metric ton in 95-96. The off-take for wheat has gone down from 8.8 metric ton to 3.8 metric ton. While agricultural exports as a percentage of total exports had gone down from 19% to 16% cereal exports had gone up from 1.4% to 3.4%, indicating that exports were increasingly based on the creation of domestic food insecurity.

Aquaculture

Dr. John Kurien of the Centre for Development Studies, Trivandrum, elaborated how industrial aquaculture and fisheries are promoted with bilateral and multilateral aid for 'short term parking' of international capital in a specific location for a period of time during its race for profits. This 'rape and run' industry is also based on the enclosure of the common resources of coastal communities. They pose a threat to existing patterns of food production which imply a direct threat to national and local food security since the production feeds into the international luxury demand for humans and pets of affluent countries.

In 1992, Mexico imported 20% of its food. In 1996 it was importing 43%. Eating "more cheaply on imports is not eating at all for the poor in Mexico". One out of every two peasants is not getting enough to eat. In 18 months since NAFTA, the intake of food has been destroyed by 29%. 2.2 million Mexicans have lost jobs and 40 million are in extreme poverty.

The Kenyan experience

Dr. Regassa Feyissa, Director of the Biodiversity Institute Ethiopia said Africa was being treated merely as a cheap source of labour. Kenya was importing 80% of its food, while 80% of its exports were accounted for by agriculture. In Kenya, grain imports have risen, subsidised by the European Union, undermining local production and creating poverty by oversupply. In 1992, EU wheat was sold in Kenya 39% cheaper than the same wheat was purchased by the E.U from European farmers. In 1993, it was 50% cheaper. In 1995 Kenyan wheat prices collapsed through oversupply. All this in a country which was self-sufficient in the 1980s.

Dr. Kamal Malhotra Co-Director of FOCUS on the Global South referring to South Korea reported how the country had shifted from food self-sufficiency 40 years ago to dependence on the US today. During the five-year period from 1986 to 1991 agricultural imports in South Korea went up from US$1.8 billion to US$5 billion. In the Philippines, acreage under rice was declining, while it was increasing under cut flowers. 350,000 rural livelihoods will be destroyed by shifting from corn, rice and sugarcane to cut flowers and vegetables for export. The import of 59,000 metric ton under the minimum access requirement of GATT will displace 15,000 families annually.

The experience of the United Kingdom

Referring to massive growth of food insecurity in Britain, Dr. Tim Lang, Professor of Food Policy at Thames Valley University said there were mountains of food in his country and miles of Super Market shelves but many Britons could not afford an adequate diet due to rising unemployment and declining social welfare. One-fifth of the population is classified as not being able to afford a nutritious diet. Poverty, he said, was a reality even in rich countries.

Five companies control 70 per cent of the food market in the UK. There is growing food insecurity even in rich countries as food systems become more centralised. The distance for shopping for food had increased from 2 miles to 5 miles, increasing "food miles" embodied in food and creating a motorway food system. Globalisation is expected to double the CO^2 emissions through increased transportation, leading to more unpredictable fluctuations in climate which undermine food security. The Environmental Minister of Denmark Mr. Svend Auken while opening the First Organic World Exhibition in Copenhagen, had stated that 1 kg of grapes imported from South Africa to Europe contributes to 10.5 kg of CO2 emissions. This is obviously not an efficient food system. Long distance transport and intensification of agriculture are linked. Tim Lang said that Britain had shifted from a policy for small farmers to a policy against farmers. The British model of farming, where farmers were systematically thrown out of agriculture was being spread to other parts of the world.

The Mad Cow disease, he said, was the result of intensification of agriculture. The disease which had affected dairy cows and beef cows, totally undermined UK.'s beef trade and had led to the extermination of 1,65,000 cows because of the risk of the transfer of the infection to humans. The farmers, he said, were now questioning intensification of agriculture, adding that the big lesson for the public was that you cannot squeeze nature to maximum. Mad cow disease was challenging free-trade, as 'passports' for sources of beef were becoming necessary to regain consumer confidence. "We must stop intensification. We must re-inject food security in the system", Tim Lang said.

Philip Lymbery, from Compassion in World Farming, UK. said the repercussions of Mad Cow Disease were going to be immense. It proved the pitfalls of factory farming. Since World War II, half a million farmers had disappeared following the corporatisation of agriculture in UK. Displaying slides, he showed how cattle were reared in inhumane conditions. In UK. alone, he said, 600 million broiler chickens were raised annually. They were kept in cages too small for their-well-being, with the result that 75 per cent of the chickens were dying of heart failure. In intensive dairying, male calves were useless and were kept in inhumane conditions in a cage until they are six months old and are then ready for slaughter. They are then exported. One of the biggest popular movements in UK. has emerged as a result of this violence to male calves.

Russia

In Russia, as reported by Vera Matusevich, Agricultural Economist, World Bank, Russia, production and consumption of food has dramatically declined as a result of trade liberalisation and transition to a market economy. One third of Russians are now below the poverty line. 50% of food is being imported. Production has declined by 33% between 1990 and 1995. The livestock sector has declined by 40%. Meat production fell from 8.3 million tons in 1992 to 5.9 million in 1995. At the same time, import of meat increased from 1.4 metric ton to 2.1 metric ton. In 1995 imported meat accounted for about 25% of all meat consumption. These imports are concentrated in big cities which account for 70% of retail turnover. Mafia's, linked to trade, are dumping contaminated food on Russian consumers. Free trade in food has implied the growth of trade in low quality food, replacing the healthy, nutritious, and culturally diverse diets of people. Food security includes access to safe food. However, food safety is being systematically excluded in the Food Summit documents.

The globalisation of agriculture is in fact merely corporatisation of agriculture. Kristin Dawkins, Director of the Research Institute for Agriculture and Trade Policy of United States said the US government had led the world in promoting globalised monopolies through international trade agreements, assisted by such bullying tactics as unilateral leveraging of its vast markets. She said under encouragement from the US government, food corporations controlled US agriculture and were now attempting to control world agriculture. Dawkins said in 1994-95, ten cents out of every food-dollar spent in the United States went to Philip Morris and another 6 cents went to CongAgra. Four companies (IBP, ConAgra, Cargill, and Beef America) sold 87 per cent of all slaughtered beef. Two companies, i.e. Kelloggs and General Mills sold two thirds of all ready-to-eat breakfast cereals. Campbells sold 73 per cent of all canned soups. Frito-Lay sold 85 per cent of all corn chips and 40 per cent of all potato chips. Craft, which is owned by General Foods, sold more than half of all sliced processed cheese.

Squeezing farmers off the land

Small farmers are paying the price for this corporatisation. They are treated as dispensable in the US. and the dispensability of the small farmer is now being globalised through trade liberalisation. As Kristin Dawkins reported in 1962, the Committee on Economic Development which advised the White House, recommended the displacement about two million of the present farm labour force, plus an equal number to a large part of the new entrants who would otherwise join the farm labour force.

Kenneth Boulding, an agricultural economist from the University of Michigan, described their plan bluntly: " The only way I know to get tooth paste out of a tube is to squeeze, and the only way to get people out of agriculture is likewise to squeeze agriculture. If the tooth paste is thin, you don't have to squeeze very hard, on the other hand if the tooth paste is thick, you have to put real pressure on it". A.V. Krebs, Director, Corporate Agribusiness Research Project, and author of "Corporate Reapers" reports that in 1990 nearly 22 per cent of US. farm operator households had incomes below the official poverty threshold, twice the rate of all US. families. In 1993, over 88 per cent of the average farm operator household income was derived from off-farm income. From 1982 to 1993 the index of prices received by farmers rose only 7.5% while the index of prices paid by farmers for inputs multiplied over threefold to 23 per cent. As Krebs queried, "Is it any wonder that our farmers during the period from 1990 to 1994 saw an almost minuscule 1.98 per cent return on their investment?" Is it any wonder that from 1987 to 1992 in the US. farm entries dropped to less than 67,000 per year, while exits averaged 99,000 per year resulting in the net loss 32, 000 farms a year.

In the India Consultation preceding the conference, Dr. B.D. Sharma, ex-Commissioner, Scheduled Castes and Scheduled Tribes, and ex-Vice Chancellor of Northeastern Hill University, had stressed how hidden disinvestment in agriculture was built into SAPs through which rural production systems were being disinvested of human and natural capital. Financial investment in the agricultural sector by agribusiness and corporations has created new forms of dispossession for small and marginal farmers and landless agricultural workers. Though agriculture provides the material and capital base for industry in India, agricultural wages are far lower than wages in the urban sector, and the costs of inputs that farmers buy from the industrial sector are much higher than the prices they get. The embodiment of labour in agricultural produce has been devalued by either treating family farm labour as of zero value because it is free and by paying farm workers much lower wages than the minimum survival wages. As a result, peasants are being pushed off the land. Their uprooting is being facilitated by policies that are transferring rural capital from farming communities to private investors. This migration of both capital and labour from agriculture is the real disinvestment in agriculture. The current policies of the government, allowing corporatisation of agriculture will result in the last 30% of the population, the poorest, being wasted out. 'Farming has been made a non-viable occupation; farmers have been made a dispensable commodity.'

In contrast, Mr. Jakhanwala, Secretary, Ministry of Food and Civil Supplies, stated that 'if the small farmer is no longer viable, let him disappear.' Mr. Jakhanwala put forward the government position on trade liberalisation and corporatisation of agriculture. While Dr. Bandopadhyay, ex-Secretary, Government of India and Chairman, Indian Institute of Management, Calcutta, in his speech, gave evidence that equity and productivity were positively correlated, Mr. Jakhanwala insisted that 'we cannot produce more through increased equity. Let more food be produced in any mode. Then, separately, let poverty be removed. We have to separate poverty alleviation and food security from productivity increase.' He justified the transfer of resources from small-holders to corporations and industrialists on grounds that 'higher production needs inequity because larger farmers are more efficient'.

The difference in the viability between the small but more productive farm and the large but less productive farm is the difference in the relative factor prices available to the small holder and the large investor.. For the large investor, capital and natural resources are cheap but labour is costly. For the small holder, labour is cheap while capital and natural resources are costly. Policies favouring the rich improve their factor prices. Policies could however also be created which improve the viability of the small farmer. Dr. Bandopadhyay said that corporatisation of Indian agriculture was not necessary from the productivity aspect. On the contrary, he said, 'corporatisation has to be prevented to prevent depeasantisation and the death of India'. To ensure the survival of India's peasants, who are the only guarantee for India's food security, the right to work has to be recognised as a fundamental right. This was stressed both by Mr Bandopadhyay as well as Mr. Mishra, Secretary, Ministry of Labour.

The myth of the unproductive small farmers: Which productivity? Whose efficiency?

The main argument used for the industrialisation of food and corporatisation of agriculture is the low productivity of the small farmer. But as Dr. Bandopadhyay pointed out even the World Development Report (WDR) has accepted that small farms are more productive than large ones.

In Brazil, the productivity of a 0-10 ha farm was $85/ha while the productivity of a 500 ha farm was $2/ha In India, a 0-5 acre farm had a productivity of Rs.735/acre while a 35 acre farm had a productivity of Rs 346/acre. The state of Bengal was showing the highest rate of growth of 6.5% for agriculture as a result of land reform, while the rate of growth for India was a mere 3%.

Even biologically, small diverse farms have higher productivity than large monoculture farms as long as multiple yields are taken into account. Productivity of monocultures is low in the context of diverse outputs and needs. It is high only in the restricted context of output of 'part of a part' of the forest and farm biomass. For example 'high yield' plantations pick one tree species among thousands, for yields of one part of the tree (e.g. pulp wood). 'High yield', green revolution cropping patterns pick one crop among hundreds e.g. wheat for yields of one part of the wheat plant (only grain). These high partial yields do not translate into high total (including diverse) yields. Productivity is therefore different depending on whether it is measured in a framework of diversity or uniformity. Biodiversity-based productivity measures show that small farmers can feed the world because in terms of multiple yields they have high productivity. An article in 'Scientific American' has developed this approach further, and has shown how the economic calculations of agricultural productivity of the dominant paradigm distort the real measure of productivity. By leaving out the benefits of internal inputs derived from biodiversity as well as the additional financial and ecological costs generated by purchase of external inputs to substitute for internal inputs in monoculture systems.

In a polyculture system, five units of input are used to produce 100 units of food, thus having a productivity of 20. In an industrial monoculture, 300 units of input are used to produce a 100 units of food, thus having a productivity of 33. The polyculture system which has been called "low yielding" and hence incapable of meeting food needs is therefore sixty times more productive than the so called "high yielding" monoculture. The relevant measure for food security is nutrition per acre, measured in all its diversity, not yields of grain per unit labour. In non-sustainable systems, even the output based on high external inputs was not maintainable. Quoting Mr Obaidullah Khan, Head of FAO's Regional Office for Asia and Pacific, Martin Khor of Third World Network said that the intensive model of Green Revolution agriculture was not sustainable due to rising costs and falling yields.

As in the case of crop production, industrial fisheries and aquaculture also consume more resources than it produces. As Dr. John Kurien pointed out, in 1988, global shrimp aquaculture consumed 1,800,000 tonnes of fishmeal derived from an equivalent of 9 lakh tonnes wet-weight fish. It is further estimated that by the year 2000 about 5,700, 000 tonnes of cultured fish will be produced in Asia. The feed requirement for this will be of the order of 1.1 million tonnes of feed. This is equivalent of a staggering of 5.5 million tonnes of wet-weight fish, nearly double the total marine fish harvested in India today. Fishmeal provides the crucial link between industrial aquaculture and industrial fisheries since the fish used for fishmeal is harvested from the sea through trawlers and purseseines which totally deplete marine stocks. This falsifies the often used argument by the agencies like the World Bank that promotion of aquaculture is like moving from hunting and gathering to settled agriculture in fisheries and will reduce the pressure on marine resources.

In spite of all evidence pointing to the high diversity, productivity and sustainability of small family farms, globalisation is wiping out these efficient systems, and replacing them with unhealthy industrialised food system under corporate control. Sustainability and equity are both built into small producer based food systems, which also use resources sufficiently. However, these ecologically efficient systems are being wiped out by reducing their resource base through policies related to trade liberalisation.

Alienation and monopolies on land, water and biodiversity

Land, water and biodiversity are the natural resources that make agriculture possible. Trade "liberalisation" policies are leading to the alienation of these resources from peasant communities and the concentration of their ownership.

Land

The last five years of economic "reforms" in the agricultural sector have in effect been an undoing of the earlier reform process which were guided by values of social justice and equitable distribution of resources. While the positive protections afforded to small farmers and poor consumers and to self reliance in food for the country have been removed, the "reform" package has increased the tendency to centralise control over agriculture. The most significant instrument of social justice in independent India had been the land reform legislation in different states to ensure equitable entitlement to land and to prevent concentration of land ownership. Under World Bank Structural Adjustment pressure, combined with the greed of a new breed of absentee landlords or "zamindars", industrialists, agribusiness corporations, speculative investors, land reform laws in every state are being undone, alienating the land from small producers and cultivators, swelling the ranks of the landless, the dispossessed, the unemployed. Karnataka has amended the Land Reforms Act of 1961, which undoes the radical reforms that made the tillers the owners of the land and prevented non-agriculturists from becoming absentee land owners. The amendments reintroduce leasing, allow the non-agriculturists and industrialists to own land, and remove land ceiling for aquaculture, horticulture, floriculture and housing industry. The land reform amendments have been described as Predatory Capitalism and Legalised Land Grab.

Dr Sulabha Brahme reported that the government of Maharashtra has relaxed restrictions on conversion of agricultural lands to non-agricultural land. The agricultural Land Ceiling Act has been amended to permit large land holdings. This has led to a skyrocketing of land prices. Between 1991-1995, prices of land in villages around Pune have increased six-to-ten tonnes - from Rs.300,000 per/ha to Rs.1.5 to 2.5 million per hectare. In the banana growing district of Jalgaon, the land values have increased during the last five years by two to two and half times. The new land policy announced by Gujarat Government seeks to remove a major hurdle in the commercialisation of agriculture and the introduction of new zamindari. Feudalism was abolished in Saurashtra in 1950 and tenancy rights were given to girosdors (poor cultivators) . The new land policy is snatching away the land from those who had been empowered through land reform legislation of independent India.

Dr. Mahadevia and Dr. Hirway showed how land legislation has been changed in Gujarat. According to the Gujarat Land Acquisition Act, those possessing or intending to possess agricultural land should be staying within eight km. limit of the land. This restriction was introduced to check the concentration of agricultural lands in the hands of few and those not engaged in agriculture. This law has been amended, and the restriction of 8 km. on purchase of agricultural lands was removed on March 31, 1995. The second amendment in land legislation allows the alienation of lands from those who received it under and redistribution policy. These lands were not saleable to ensure that the livelihoods of the poor were protected. About 2.1 million landless peasants had received an entitlement to 2.5 million acres in Gujarat through land reforms which have been undone through the new amendments. Almost a quarter of such lands have been sold in rural areas around Ahmedabad. The state government has also declared a policy through a Government Resolution of August 9, 1994 that village commons (called wastelands) will be leased out for horticulture, plantations, and other agricultural purposes to corporations. For the first two years no lease money will be charged, after which Rs.25/acre will be charged in the third year. As a result of these changes, area under food crop in Gujarat has declined from 5.2m.ha in 1990-91 to 5.1m.ha. in 1993-94 and area under non-food crops has increased from 5.3m.ha to 5. 5m.ha.

Water

Trade liberalisation is also leading to the privatisation of water. The World Bank policy paper of liberalisation of agriculture recommends the creation of 'markets in tradeable water rights'. It is argued that 'if rights to the delivery of water can be freely bought and sold, farmers with new crops, or in new areas, will be able to obtain water provided they are willing to pay more than its value to existing users, and established users will take account of its sale value in deciding on what and how much to produce'. This institution of tradeable water rights is a guarantee for diverting water from small farmers to large corporate super-farms. Tradeable water rights will lead to water monopolies. In the logic of the market, tradeable rights have a tendency to be sold to the highest bidder and will hence lead to water-power linked to concentration of wealth. It will also lead to over-exploitation and misuse of water, since those who deplete water resources do not have to suffer the consequences of water scarcity as they can always buy water rights from other farmers or move to other regions. Besides, aggravating the already severe ecological crisis in water resources, Tradeable water rights will destroy the social fabric of rural communities and create discord and disintegration. The social breakdown in Somalia can be traced, in part, to the privatisation of water rights according to the World Bank policy. Tradeable water rights are based on the assumption that no ecological or social limits should be placed on water use. Such use without limits leads to abuse. The World Bank proposals on tradeable water rights are a prescription for social and ecological disaster.

For instance, the section on reforms in irrigation sector in the new Agriculture Policy of Karnataka talks of a shift from a "top down to bottom up" approach. The privatisation and tradeable water approach, is definitely a bottom up policy, but not in the sense of democratic control. It is bottom up since it moves the control over water resources upwards from small and marginal farmers to large corporations and agribusiness interests who can buy up the 'water equity shares' of 'water users associations', and establish monopoly control on water. This has already happened in Sri Lanka, where export corporations have purchased shares from farmers, thus leading to displacement of farmers from agricultural activities and livelihoods.

Biodiversity

Intellectual Property Rights (IPRs) regimes are enabling corporations to have monopoly control over seeds and biodiversity. Seeds have been evolved by farmers over centuries. However, seed corporations are declaring seeds to be their "intellectual property". Dr. Regassa Eeyissa highlighted the struggle over seed and "farmers' rights" at the Leipzig conference on Plant Genetic Resources. This author reported on cases of biopiracy with regard to the patenting of neem and turmeric.

The session on Biodiversity and Biotechnology elaborated how IPRs will encourage monopoly control of plant material by TNCs and undermine food security in the biodiversity rich third world. W.R. Grace has patents on Neem which will deprive third world farmers of access to ecologically safe pest control. Agracetus, a subsidiary of Grace, has broad species patents for soya bean and cotton. These patents, put in the hands of a single corporation, has the monopoly over what we grow on our farms and in our gardens. The myth of low productivity of diversity based small farms is also being used to promote genetic engineering. In her paper on Biodiversity and Biotechnology, Beth Burrows called genetic engineering "a form of Structural Adjustment but directed by Ciba Geigy and Monsanto rather than by the World Bank and IMF". The monopoly control over resources will increase even more dramatically if investment is fully liberalised. The corporations pushed for trade liberalisation of agriculture under the Uruguay Round of GATT. They are now demanding total freedom of investment as a right. As Martin Khor of the Third World Network stated, now the industrialised countries were threatening to launch a new Uruguay Round at the WTO Ministerial Meeting to be held in Singapore at the end of the year. The biggest issue was the Multilateral Investment Agreement, under which no country would have the right to screen foreign investment. Corporations wanted the right to enter and establish themselves with 100 per cent equity, total freedom to repatriate profits. They could buy farmers, land, set up plantations and fisheries and also undertake livestock rearing.

Democratising the food system

Behind the GATT agreement is a raw restructuring of power around food : taking it away from people and concentrating it in the hands of a handful of agro-industrial interests. The conflict is not between farmers of the North and those of the South, but between small farmers everywhere and multinationals. It is no surprise that the bulk of US, Japanese and European farmers are also opposed to the GATT reforms - these reforms are meant to drive the mass of small farmers out of business.

In the third world, most small farmers are women, though their role has remained largely invisible and has been neglected in official agriculture adjustment programmes. "Free trade" as constructed in the GATT is based on the denial of freedom of rural women to produce, process and consume food according to local environmental, economic and cultural needs.

Democratising the food system involves the rebuilding of local food security as a basis for national food security. Democratising the food system also involves a shift from monocultures to diversity. It involves a shift from an obsession with dollars per acre to a concern for nutrition per acre. Democratising the food system involves the democratic right of consumers to know what they eat. This includes the right to labelling of genetically engineered and chemically processed foods. Democratising the food system needs to be based on internal liberalisation rather than external liberalisation. Democratising the food system involves putting people and nature, not trade, at the centre of food and agricultural policy.