The future of food: countering globalisation and recolonisation of Indian agriculture

Vandana Shiva*

Research Foundation for Science, Technology and Ecology, A-6, Hauz Khas, New Delhi 110016, India

Abstract

India, with a billion plus population, has put agriculture at the heart of its economy and food security at the centre of its agriculture policy. However, all the decisions and policies of a free and independent India which replaced colonial policies of land alienation, and concentration on ownership of land, super exploitation of the peasantry, the creation of famines are being undone through globalisation. These policies are bringing back “zamindari” and land monopolies of colonial times. The public distribution system (PDS) is being dismantled. Farmers are committing suicides, reports of starvation deaths have become common, foreboding a return of famines last experienced under British rule. Biodiversity is being rapidly eroded, and food, the very source of health and nutrition has become a major source of health hazards caused by toxic chemicals in factory farming and new genetically engineered foods and crops. This paper examines these developments in detail and proposes an agenda for creating an alternative future of food and highlights the current practices that are working towards this alternative.

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1. Introduction

In India and elsewhere, globalisation of agriculture, under the triple pressure of World Trade Organisation (WTO) rules, World Bank-IMF conditionalities and structural adjustment programmes, and economic and political interests of the national elite is destroying the land and those who labour on it, small peasants and landless workers. The very viability of a national agriculture and food security system is being ruptured as high cost, capital intensive, corporate farming displaces...
small farmer centred agriculture, and trade replaces food rights of the poor as a policy priority.

A reading of the new agricultural policy brings out three core areas of policy shift that are destroying the fragile fabric of ecological security, livelihood security and food security, creating ecological devastation and deepening hunger and poverty. These are: (i) changes in property rights to natural resources—land, water and biodiversity (including seeds) on which agricultural production rests; (ii) changes in technology, especially new genetically engineered crops and seeds (GMOs) which promote use of agrichemicals, increase costs of production for farmers and corporate control over agriculture policies and practices; and (iii) changes in trade regimes, privileging and liberalizing exports and imports, thus undermining national food security, farmers’ livelihood and food rights of the poor.

2. Changes in property rights to natural resources: land, water, biodiversity

Trade “liberalisation” policies are leading to the alienation of land, water and biodiversity from peasant communities and the concentration of their ownership in the hands of corporations. New private property rules created by W.T.O. under TRIPS (Trade Related Intellectual Property Rights) and GATS (General Agreement on Trade in Services) are leading to the enclosure of biological resources and water which have hitherto been common property.

2.1. Concentration of land ownership

At the heart of colonial policies for extraction of revenues from agriculture was the introduction of the “zamindari system”. Zamindari abolition was one of the most important steps taken in independent India and the most significant instrument of social justice was the land reform legislations in different states to ensure equitable entitlement to land and to prevent concentration of land ownership. Land reforms such as operation Barga which put land back in the hands of the tiller were also introduced in Bengal. However, during the last ten years globalisation and economic reforms in agriculture have in effect meant an undoing of the earlier reform process 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 of centralised control over agriculture.

The main argument used for the industrialisation of food and corporatisation of agriculture is the low productivity of the small farmer. But in terms of food and nutrition productivity per acre, in terms of efficiency in water use, in terms of creation of livelihoods small farms are more productivity than large ones. Even the World Development Report (WDR) has accepted this fact [1]. Even biologically, small diverse farms have higher productivity than large monoculture farms as long as multiple yields are taken into account. FAO data on total farm output confirms this [12]. 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% [9].

Under World Bank Structural Adjustment pressure, combined with the arrival 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. For instance, Karnataka has amended the Land Reforms Act of 1961, which undoes the radical reforms that made the tillers the owners of land and prevented non-agriculturalists from becoming absentee landowners. Described as ‘predatory capitalism and legalised land grab’, these amendments reintroduce land leasing, allow non-agriculturalists and industrialists to own land, and remove land ceiling for aquaculture, horticulture, floriculture and housing industry. 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 leading to skyrocketing land prices [9].

2.2. Water privatisation, water monopolies

Trade liberalisation is also leading to the privatisation of water and creation of water monopolies. Water is being reduced to a commodity, owned and traded by water giants—Suez, Vivendi, Bechtel, Thames-RWE. The World Bank policy paper on liberalisation of agriculture recommends the creation of ‘markets in tradable water rights’. It argues 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’ [15]. This institution of tradable water rights is a guarantee for diverting water from small farmers to large corporate super farms. In the logic of the market, tradable rights have a tendency to be sold to the highest bidder and hence lead to water-power linked to concentration of wealth, and to over-exploitation and misuse of water, since those who deplete water resources do not have to suffer the consequences of water scarcity. Besides, aggravating the already severe ecological crisis in water resources, tradable 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.

 Tradable 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. For instance, the new Agriculture Policy of Karnataka talks of a shift from “top down to bottom up” approach. What it implies, however, is that the control over water resources will move 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.
The massive $200 billion project of River Linking will also rob rural communities of their riparian water rights. The project, the government claims, is justified on grounds of increased food security through increased irrigation. However, higher water use does not translate into higher food production or nutritional security. Green Revolution crops use 5 to 10 times more water than native varieties. Paddy and Sugarcane use 5 to 10 times more than millets, which provide higher nutrition. Food production could be increased five fold without increasing irrigation by shifting to water prudent but nutrition rich millets [13].

The sale of Ganga water to the French company Ondeo Degremont (subsidiary of Suez Lyonnaise des Eaux Water Division—the water giant of the world) for the Sonia Vihar water treatment plant in Delhi exemplifies the way privatisation of water is being pursued. 635 million liters a day of water would be made available from the Upper Ganga Canal, one of the oldest canals in Western U.P. While Delhi residents will benefit and the company expects to make Rs. 100 million (10 crore) per annum, mainly based on government guarantees as in the Enron/Dabolhol project, farmers of Western U.P. will lose Rs. 2 billion annually, the total “investment” by the company. This project will obviously affect the agricultural output and the food security of the region where the canal had been irrigating for more than one century [15]. The farmers are understandably agitated and the people staying in the region have opposed the project, asserting that the “Ganga is not for sale”.

2.3. Patents on life and seed monopolies

Seeds and biodiversity, which have been the common property of farmers and local communities, are being transformed into private property of a handful of corporations—Monsanto, Syngenta, Duport, Dow, Bayer. These chemical giants now control seeds as well as medicine. India, in fact, is losing its biological and genetic resources, the basic wealth of our country, and the biodiversity based knowledge of our local communities mainly through biopiracy. The piracy and patenting of our rich biodiversity by the MNCs, institutions and individuals especially from the Western world is inflicting great injury to the natural resources of our land and people. If this is not arrested by appropriate legislation and policy measures, there would be incalculable damage done to the nation and the coming generations [16].

India is a signatory of the two international treaties that have an impact on the nation’s biodiversity wealth and on peoples’ rights to use it and conserve it responsibly. These are the Convention on Biological Diversity (CBD) and the Trade Related Intellectual Property Rights (TRIPs) Agreement under the WTO. India on behalf of a group of countries including Brazil, Bolivia, Cuba, Dominican Republic, Ecuador, Thailand, Peru and Venezuela has submitted a paper to the TRIPs Council of WTO, on “The Relationship Between the TRIPs agreement and the Convention on Biological Diversity and the Protection of Traditional Knowledge”, calling for amendments in TRIPs to harmonise it with the CBD. However, at the domestic level, India has harmonised its Biodiversity laws to be consistent with the unamended TRIPs agreement. The Government of India has enacted new
legislations to implement these international obligations which would far reaching implications for the lives and livelihoods of millions of Indian people.

The new corporate-driven intellectual property rights regimes (IPRs), especially the Trade Related Intellectual Property Rights Agreement of WTO is leading to seed monopolies and biopiracy. Seeds have been evolved by nature and farmers over millennia. This collective, cumulate heritage is now either being destroyed by introduction of monocultures of non-renewable seeds or being hijacked by global corporations through patents and biopiracy. When a seed is patented or covered by breeders’ rights, farmers can no longer save or exchange seed freely. Seed saving and seed exchange in defined as a “theft” in intellectual property law.

The Indian legislations that have an impact on biodiversity and people’s rights are: Patent (Second Amendment) Act, 2002; Protection of Plant Variety Protection and Farmers’ Rights Act, 2001; and the Biological Diversity Act, 2002. The country has amended its Patent Act 1970 for the second time, in May 2002, since TRIPS came into force. The first amendment (undertaken in 1999) was to introduce exclusive marketing rights and mail box arrangement to implement Art. 70.8 and 70.9 of TRIPS.

There are two amendments in the definition of what is not an invention that has opened the floodgates of patenting of genetically engineered seed. First, in Section 3(i) of the Patent Act, 1997, the word “plants” have been omitted. According to Section 3(i), the following is not an invention: ‘Any process for the medical, surgical, creative, prophylactic or other treatment of human beings or any process for a similar treatment of animals or plants or render them free of disease or to increase their economic value or that of their products.’ The omission of “plants” from this section implies that a method or process modification of a plant can now be counted as an invention and can hence be patented. Thus the method of producing Bt. cotton by introducing genes of a bacterium Bacillus thurengensis in cotton to produce toxins to kill the bollworm can now be covered by the exclusive rights associated with patents. In other words, Monsanto can now have Bt. cotton patents in India.

The second amendment has also added a new section 3(j). This allows production or propagation of genetically engineered plants to be counted as an invention, and hence patentable. The section 3(j) excludes as inventions “plants and animals... including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals”. However, the emergence of new biotechnologies is often used to define production of plants and animals through genetic engineering as not being essentially biological. Without such a clear definition, 3(j) allows patents on GMOs patentability and hence opens the floodgate for patenting transgenic plants. The language of 3(j) is a verbatim translation of Article 27.3 (b) of TRIPS into India law. Article 27.3(b) of TRIPS states:

Parties may exclude from patentability plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, parties shall provide for the protection of plant varieties either by patents or by
an effective sui generis system or by any combination thereof. This provision shall be reviewed four years after the entry into force of the Agreement establishing the WTO [10].

In the process the government has undone its own position on W.T.O. in the TRIPS review. Article 27.3 (b) has been under review since 2000. The whole of TRIPs council has to undertake review of TRIPS “in the light of any relevant new developments which might warrant modification or amendment of this Agreement.”

The Biodiversity Act passed by the Parliament in December 2002 was to implement India’s obligations under the Convention on Biodiversity Conservation (CBD) of the United Nations.

The breakthrough achieved in the CBD was:

1. The need to conserve biodiversity;
2. Recognition of community rights and indigenous culture and knowledge (Art.8 (j));
3. The prevention of adverse impact on biodiversity by mega development projects and by the release of genetically engineered organisms (GMOs) (Art 19.3), and
4. The potential to prevent biopiracy—the theft and patenting of indigenous knowledge related to biodiversity.

Earlier drafts of the Bill had all four components. However, the draft passed by Parliament has no conservation element, no recognition of community rights to Biodiversity (even though this is necessitated by the Panchayati Raj Amendments of the Constitution and the extension to Schedule Areas) no regulation of adverse impacts. Given that the Environment Ministry, through the Genetic Engineering Approval Committee has been rushing ahead to commercialise genetically engineered crops like Bt. cotton in spite of known risks to biodiversity and in spite of exaggerated claims of benefits, it is clear that pressures were put on the ministry to drop clauses on regulating adverse impact in earlier drafts. The act is reduced to an act to facilitate access to biodiversity and indigenous knowledge for intellectual property rights. It facilitates and legalises biopiracy, instead of preventing it. All that biopirates will need is a cosy relationship with the National Biodiversity Authority (based in Chennai).

In the case of indigenous seeds and agricultural crops, the Biological Diversity Act has allowed full scope for biopiracy. Section (6) on intellectual property has an exemption 6(3): “The provisions of this section shall not apply to any person making an application for any rights under any law relating to protection of plant varieties enacted by Parliament.”

Laws protecting plant varieties include the Patent (Second Amendment) and the Plant Variety Protection Act. Exemption 6(3) in the Biological Diversity Act in effect says that companies can take varieties farmers have evolved over millennia with unique traits of aroma as in basmati, salinity resistance, drought resistance,
flood resistance, and patent the traits and qualities which are a result of farmers breeding.

A global movement is calling for a ban on patents on life and recovering of the generic basis of life as “commons” which cannot be owned and privatised. The African countries have also made this demand in W.T.O.

3. Technologies of dependency and corporate control

One of the key areas of globalisation has been the entry of global corporations in the seed sector. Control over seed is control over the food system. Besides controlling seed through patents and intellectual property rights, corporations like Monsanto and Cargill (now owned by Monsanto) are using technologies of dependency to force farmers into seed dependency. The new seeds are non-renewable—they yield a crop, but the crop is useless for seed because of hybrids based on male-sterility, and the impending introduction of “terminator” seeds—seeds which are engineered to be sterile. Corporations are breeding seeds that need chemicals—life herbicide resistant varieties. Even varieties like Bt. Cotton, need more pesticides because they are prone to more diseases and pests.

3.1. The case of Bt. cotton

The commercial planting of Bt. Cotton in the country took place in 2002, but the cotton crop failed and the government did not clear its cultivation in North Indian states. Leading agricultural scientists, experts and academicians in India have acknowledged the failure of Bt. Cotton on the following counts: drying and falling of squares without boll formation, reduced boll formation, small sized bolls, very short staple length, very little resistance to boll worm, and requiring 2–3 sprays for control of boll worm, not resistant to dry spells, low yields (only 2–3 quintals for MECH 162), low market value and cost-benefit ratio not on par with non-Bt cotton. The then Health Minister Dr. C.P. Thakur, also observed that Bt cotton products could have long term environmental and health effects [8].

A study by the Research Foundation for Science, Technology and Ecology conducted in Maharashtra, Madhya Pradesh, Andhra Pradesh and Karnataka showed that not only did Monsanto’s cotton not protect the plants from the American Bollworm, but there was a increase of 250–300% in attacks by non-target pests like jassids, aphids, white fly and thrips. In addition, the Bt plants became prey to fungal diseases like root rot disease or fusarium. The Bt. cotton varieties gave very low yields. Even the staple lengths of whatever little cotton was produced were so short that it fetched a very low price in the cotton market [16].

Corporate seeds are creating a deep crisis for farmers because of high costs of seed, high dependence on costly inputs (pesticides, herbicides) and high levels of unreliability and crop failure. While costs of cultivation are higher because of costly non-renewable seeds and chemicals, the price of agricultural produce is collapsing due to removal of price and import regulation, a direct result of trade liberalisation. As production becomes more costly, and agricultural prices fall, indebtedness and
economic displacement become the fate of the peasantry, played out in its most tragic expression through farmers’ suicides. More than 20,000 farmers have committed suicides because of the debt trap of high cost seeds over the last few years. Farmers are spending Rs. 100,000 per acre and in a good harvest earning Rs. 10,000, a recipe for debt and suicide [11].

Peasant survival, just and remunerative prices, conservation and sustainable use of vital natural resources, including soil, water and biodiversity, healthy food production, maximisation of nutrition per acre and remunerative farmers’ incomes per acre demands that farmers shift from technologies created for corporate control and maximisation of corporate profits to eco-friendly, farmer friendly technologies such as organic farming.

4. From food first to trade first: How corporations are taking over Indian agriculture through trade

Trade liberalisation and globalisation of agriculture is robbing the peasants and landless workers of already low incomes and livelihood security. There are three mechanisms by which the rural producers are either being super-exploited or they are being rendered dispensable.

1. Destruction of the market support at domestic level both in terms of procurement and in terms of guarantee of Minimum Support Price (MSP).

   The MSP is to agriculture what minimum wages are in the individual and service sectors, the minimum prices a farmer should receive to cover costs of production and her/his labour. However, as a result of globalisation, the government has started to withdraw from its role in procurement and price regulation. Riots have occurred in different parts of the country with farmers protesting against lack of markets and fall in prices of agricultural commodities. The case of cotton, for instance, has been discussed above.

2. Diversion from food crops to perishable cash crops and promotion of monocultures thus creating market dependency on corporate monopolies.

   Globalisation policies have promoted the idea that farmers should shift from food grains and staples to vegetables and fruits. Export promotion zones for fruits and vegetables are a major thrust area in the new agriculture policy. On the one hand this erodes food security for households and the nation. On the other hand it pushes farmers into distress sales, since fruits and vegetables cannot be consumed or stored at the household level.

3. Removal of Quantitative Restrictions (QRs) on imports and dumping of subsidised, artificially cheap imports.

   A dispute initiated by the U.S. against India in the WTO forced the removal of QRs. This has translated into destruction of domestic markets and prices in India being perturbed by the artificially low international prices of commodities.

   While forcing India to remove import restrictions and reduce domestic support to farmers and the poor, the US has further increased its farm subsidies to USD
180 billion over the next six years amounting to USD 20 billion annually. Most of these subsidies go to agribusiness and to capture export markets. In addition, $10 million funding was made available for export promotions by 65 U.S. trade organizations under the 2002 Market Access Program (MAP) and another $90 million for Market Access under the fiscal year 2002. The Farm Bill 2002 also provides that MAP funding be increased to $200 million by 2006 [17]. Transnational agribusiness giants like Cargill, ADM and Conagra are, in fact, the only beneficiaries from the liberalization of imports and removal of import restrictions. They benefit both from using their immense financial clout to depress world prices during procurement and hike it during sales, as well as from the various subsidies that are given to them for both exporting as well as importing, from both exporting and importing countries.

A recently released report from the International Agriculture and Trade Policy Institute has shown that in four major U.S. commodities, the level of dumping has increased since 1995 when the W.T.O. came into force, even though the proclaimed aim of W.T.O. is to “reduce distortions in trade”. From 1995–2001 dumping jumped from 23–44% in the case of wheat, 9–29% in the case of soya beans, 11–33% in the case of maize, from 17–57% in the case of cotton [6]. According to the World Bank, low cotton prices in U.S. resulting from high subsidies are costing African countries $250 million each year [6].

4.1. The case of edible oils

From 70s to the late 80s, India was a heavy importer of edible oils. In 1986–1987, India produced 3.9 MT of edible oils, and imported 1.5 MT (28% dependency). However, thanks to the Technology Mission on Oilseeds, the total oilseed production soared from 11.3 MT in 1986–1987 to 21.5 MT in 1993 (10.5% average annual growth). Imports fell to a negligible 0.35 million tonnes. In 1998, as a temporary shortage of edible oils, combined with unchecked hoarding drove up prices, the government liberalised imports. At the same time the US flooded the world market with soyabean and soya oil, further driving down international prices of soymeal and all edible oils. As a result India has become the largest edible oil importer in the world. 43% of the total edible oil available in the country is imported [17]. As the acreage under oilseeds decreases, with farmers reeling under the price collapse, further imports are envisaged.

Thus, while removing of subsidies and creation of a “level playing field” was the most important argument used by the government for joining WTO in 1974, northern subsidies have actually increased and the playing field has become more uneven. The removal of QRs when combined with dumping becomes a genocidal trade system in which small peasants are wiped out to create global corporate monopolies over food, resulting in the dismantling of the domestic food production system.

In the face of rising subsidies and increasing dumping, import restrictions and countervailing duties are a right, a survival necessity, as countries like India, Argentina, Philippines have proposed. WTO has robbed countries of this right
through Art. 4. India and other developing countries should focus on stopping dumping by eliminating Art 4 of Agreement of Agriculture (AoA) which is the basis of the destruction of food security and rural livelihoods in the Third World. Once this crippling clause is removed, countries can start building a global system on citizens initiatives and national priorities that ensures sustainability, supports small farmers, ensures just prices, prevents dumping, protects the countryside and the environment and ensures good, safe, adequate food for all.

5. Globalisation and the creation of hunger

Agribusiness is harvesting both the stocks and agricultural subsidies to gain through agricultural exports. The same companies that gained through deregulated imports are now also gaining through deregulated exports. Millions of Indians go to bed hungry, as the government has dismantled the PDS system, and taken affordable food out of the reach of millions. Foodgrain export is liberalisation’s answer to the problem of “over-procurement” from farmers while it will bring in much needed foreign exchange. However, ever since Indian agriculture was subjected to liberalisation, both the share of agriculture exports in India’s total exports as well as their value in hard cash has actually declined. The share of agricultural exports in India’s total exports declined from 20.33% in 1996–1997 to 18.25% in 1998–1999 and further to 14.04% in 2001–2002 (Table 1).

5.1. Foodgrain exports did not benefit the national exchequer

Each period of large exports has been followed by acute food shortage, and India has had to import the same grain again, often at higher prices. For instance,

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural exports (Rs in crores)</th>
<th>Total exports (Rs in crores)</th>
<th>Percentage share of agricultural exports in total exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1990–March 1991</td>
<td>6012.76</td>
<td>32527.28</td>
<td>18.49</td>
</tr>
<tr>
<td>April 1991–March 1992</td>
<td>7838.13</td>
<td>44041.81</td>
<td>17.80</td>
</tr>
<tr>
<td>April 1992–March 1993</td>
<td>9040.30</td>
<td>53688.26</td>
<td>16.84</td>
</tr>
<tr>
<td>April 1993–March 1994</td>
<td>12586.55</td>
<td>69748.85</td>
<td>18.05</td>
</tr>
<tr>
<td>April 1994–March 1995</td>
<td>13222.76</td>
<td>82673.40</td>
<td>15.99</td>
</tr>
<tr>
<td>April 1995–March 1996</td>
<td>20397.74</td>
<td>106353.35</td>
<td>19.18</td>
</tr>
<tr>
<td>April 1996–March 1997</td>
<td>24161.29</td>
<td>118817.32</td>
<td>20.33</td>
</tr>
<tr>
<td>April 1997–March 1998</td>
<td>24843.45</td>
<td>130100.64</td>
<td>19.10</td>
</tr>
<tr>
<td>April 1998–March 1999</td>
<td>25510.64</td>
<td>139751.77</td>
<td>18.25</td>
</tr>
<tr>
<td>April 1999–March 2000</td>
<td>25313.66</td>
<td>159095.20</td>
<td>15.91</td>
</tr>
<tr>
<td>April 2000–March 2001</td>
<td>28909.30</td>
<td>202509.76</td>
<td>14.28</td>
</tr>
<tr>
<td>April 2001–March 2002</td>
<td>16254.29</td>
<td>115762.05</td>
<td>14.04</td>
</tr>
</tbody>
</table>

Source: Ministry of Commerce [2].

5.2. Foodgrain exports did not benefit the farmer

Wheat exports had an inflationary impact on domestic prices, although this did not benefit the farmers, as during the harvesting period the prices are kept low, and even MSP rates are not enforced.

5.3. Foodgrain exports: Redirecting subsidies from farmers to traders

The push towards exports is neither aimed at helping farmers or the nation’s finances; rather, in accordance with the impetus of WTO’s Agreement on Agriculture, it is a way of diverting support away from farmers towards traders. While the government dismantles procurement and public food distribution because they are considered subsidies to the people of the country, and are supposed to distort trade, it allows traders to buy bulk grains from its godowns at prices even lower than those offered to the poorest of the poor. Moreover, the annual budgets since liberalization having been adding to the subsidies for the corporate sector—tax holidays for building silos and cold storages, incentives for exporting, subsidized transportation to the ports of the traders’ choice.

The experience of the 2001 wheat export, for instance, reveals this. As against an economic cost of Rs 8300 per tonne to the FCI and an open market price of Rs 7000 per tonne, India was offered a price of Rs 4300 per tonne in international market in May 2001. The government allowed FCI to charge any price for exports, as long as it is not below the below poverty line’ (BPL) rate. In this scenario, Cargill has emerged as the biggest buyer of subsidised wheat being pushed by India into world markets [17].

The offtake price of wheat for export has also been allowed to far below the BPL price of Rs. 4150 per tonne, to Rs. 3960 per tonne. At the same time, it has increased the above poverty line’ (APL) issue prices of wheat to Rs. 610 per quintal, and for rice to Rs. 830 per quintal. This price increase will only ensure that PDS offtake will be even lower, so that buffer stocks for exports will be maintained [17].

Globalisation, as directed by the World Bank/IMF structural adjustment programmes and the WTO has seen a return of famine. The intensification of hunger over the last five years, even while grains are overflowing from the godowns can thus not be attributed to drought and climatic conditions alone, but to the policies that govern people’s access to food. The policy changes have consistently attempted to decrease the government’s role in ensuring food security and livelihood security for farmers in particular by calling measures meant to aid people as ‘trade distorting’ and demanding that these be scrapped. The anomaly of the co-existence of burgeoning food stocks and mass starvation is today, as in the late 19th century, the direct consequence of trade-driven agricultural policies. The 1877 Deccan famine killed over a million people; the trade liberalisation of the
last decade of the 1990s has seen India step into the new millennium with over 50 million starving people and millions more with drastically decreasing access to food.¹

An obvious example of the policy shift from people centred concerns to trade-and corporation-centred concerns is the fact that while farmers are not allowed by law to take their produce beyond their state borders, traders can pick them up anywhere and take them anywhere. In fact, the government is building super highways, after forcibly taking away land from farmers and communities to connect centres of agricultural production to airports and ports, so that corporations can quickly transport these commodities for export.

The policy changes induced by trade liberalisation include:

- dismantling the Food Corporation of India (FCI) and reduce its role in procurement from farmers;
- removal of QRs on imports of food and agricultural products;
- the amendment of the Public Distribution System, to cater only to the BPL category of the population;
- increase in the central issue price, from Rs. 450/quintal in April 1995, to Rs. 682 quintal in April 1999, and to Rs. 900/quintal in 2000; and
- increased price of food available through the targeted PDS to the BPL as a result of transferring 50% of the procurement and distribution costs of the government to this category.

These changed policies have had disastrous impacts for both farmers and consumers.

5.3.1. Farmers

- Government procurement centres refusing to purchase foodgrains from farmers.
- The refusal of the government to enforce MSP on private traders and corporations, forcing farmers into distress sale of foodgrains at far below production costs.
- Dumping of cheap, subsidised agricultural products by other countries in the Indian market [5].
- Increasing price of farm inputs, including seeds [14].
- Liberalising seed regulations to allow private seed companies sell uncertified seed [11].
- Deepening of farmers’ debt, increased mortgages and land alienation, increased destitution, suicides and sale of body parts among farmers.

¹ A recent study on malnutrition-related deaths of tribal children in Nandubhar district of Maharashtra, conducted by the Tribal Research and Training Institute, Pune, and sponsored by the Ministry of Tribal Affairs (which has led to institute’s Director being fired from his job) has conducted that over 75% of the deaths were malnutrition related and 78% of the households had a food deficit of 6 months or more [18].
The prosperity that globalisation was supposed to spread is fast proving to be elusive. Trade liberalisation and globalisation has resulted in thousands of farmers sacrificing their lives and livelihoods. In fact, the most prosperous state, also called the breadbasket of India, Punjab, has left behind Andhra Pradesh in the notorious distinction of farmers’ suicides [14].

5.3.2. Consumers

- Massive reduction in the number of people accessing food from the targeted PDS due to the inability of the government to identify the BPL category of people.
- Inability of the majority of even the few BPL identified to purchase food-grain from Fair Price Shops due to increased prices.
- Drastic increase in food prices—by over 60% since the initiation of trade liberalisation measures, and over 200% in commodities like pulses. Reduced PDS off-take by states due to increased issue prices.

The shift from PDS for all to Targeted PDS was justified on grounds of reducing government expenditure. However, with trade liberalisation, the PDS costs to government have risen from Rs. 5,166 crores in the mid 1990s to Rs. 9300 in 1999–2000. While the government blames farmers for this increased expenditure, the primary reason is the increased cost of food to consumers as a result of policy changes, resulting in a drastic decline in purchases from the Fair Price Shops.

5.4. Declining food production

Export-oriented agricultural policies that push the small farmer to destitution on the one hand, and promote cash cropping on the other, have resulted in a steady decline in food production since the early 1990s. The collapse of domestic support for food production (through dismantling the MSP, rising costs of inputs, crop failure due to uncertified seeds) in the late 1990s has intensified this shift, as farmers are desperate to recover their losses. For instance, there has been a decline in food production to the order of 12.8% in just one year, 2000–2001 [7].

5.5. Declining food consumption

A major impact of trade liberalisation policies has been a general lowering of food consumption. The per capita cereal consumption has declined from 17 kg per capita per month in the 1950s to 13.5 kg per capita per month in the 1990s [5]. The National Nutrition Monitoring Bureau 1997 data shows a declining trend in consumption in rural India, particularly in cereal and millets, the main source of energy for the poor, from 1990–1995. The National Sample Survey (NSS) rounds starting from the 38th round have documented the decline in cereal consumption

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2 Research based on weekly price monitoring by RFSTE.

3 Research based on weekly price monitoring by RFSTE.
1992, following the implementation of SAPs. The most important reasons for the decline are: rising food prices, destruction of livelihoods, destruction of the PDS system and shift to export oriented crops.

The reduced consumption on the one hand, and decline in production and procurement on the other are directly linked though the food and agricultural policies of the government.

Colonialism had destroyed the food sovereignty of the country, forcing changes in cropping from food for local and regional food security to commercial crops. Rice particularly had become a commercial crop even within the country. The emphasis on foreign trade had resulted in large scale famines in the country, forcing Cornelius Walford to comment in 1879 in The Famines of the World—“it is an anomaly that, with her famines on hand, India is able to supply food for other parts of the world” [5].

Following independence, the Government’s priority was to ensure that farmers would produce food and thus government procurement (to ensure both that farmers produced food, and got just price for it) and the public distribution system (to ensure that consumers got adequate food at affordable prices) were designed. The need for government involvement in food production and distribution became even more necessary with the Green Revolution that firstly, destroyed regional food security based on diverse cereals and replaced it with just wheat and rice; secondly, concentrated the production of these cereals in just two states—Punjab and Haryana—and thirdly, forced the farmer into the vicious treadmill of costly input (seeds, chemicals water) intensive agriculture.

6. Creating a hunger free, suicide free India: an agenda for the future of food

The future of food and agriculture in India appears dismal under the rules of globalisation which promote corporate control. The corporate future will ensure that landlessness will grow, farmers will be transformed from owner-cultivators to serfs controlled by contracts, seed and water will be the private property of global corporations who will sell it at high cost to farmers. In the future based on WTO rules, hunger will grow, and governments will fail to guarantee their people the right to food and their farmers the right to food sovereignty.

But this future is not inevitable. Other futures are being created, based on alternative principles and practices which will over time bring policy shifts.

6.1. Principles and policies for the future of food

(a) Food sovereignty and food security

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4 Trade liberalisation links to a decline in food consumption are even more evident in the sub-Saharan region of Africa. As a result of loan conditional adjustment and export thrust, five of the six most populous countries of this region (which together comprise 60% of the total population of the region) have experienced a decline in calorie intake per head even after taking account of net food aid inflows [3].
Every person, every community, every country has a right to be able to produce to food or have access to food and to shape their food and agriculture economies.

(b) **Right to food is a fundamental human right**

Food is the first and foremost source of sustenance, and only a secondary commodity for trade. The Right to food is a fundamental right.

(c) **Right to livelihood security for farmers**

The right to work is a fundamental right. For peasants and landless workers, this translates into livelihood security in agriculture.

(d) **Right to land**

Land rights are central to food sovereignty. Land reforms interrupted or reversed by globalisation need to be reintroduced and made central to peace and security of the people.

(e) **Right to seed/farmers’ rights**

Farmers are the first and last breeders. Farmers’ rights are collective rights based on collective, cumulative innovation. Farmers have a right to seed and to be free of seed monopolies. Biodiversity must be conserved and protected as a commons. Corporations are liable for seed failure and genetic pollution. The polluter pays’ principle must be applied to genetic contamination of crops and food.

(f) **Right to water as a public good/commons**

Right to water is a community right and a fundamental right. Farmers and communities have a duty to conserve and share water and manage it as a commons. The polluter pays’ principle must be applied to water pollution.

(g) **Sustainable production**

Sustainable agriculture is good for the environment, conserves biodiversity and water, and reduces costs of production for farmers. In terms of overall output, it has higher productivity.

(h) **Decentralisation**

Decentralisation is becoming an ecological economic and political necessity. Climate change is making centralised resource systems, which contribute to greenhouse gases, more vulnerable to breakdown. Centralisation in the hands of a few corporations is also responsible for exploitation of farmers and collapse of farm prices. Decentralisation requires priority to localisation of markets and distribution.

(i) **Diversity**

Biological diversity of farms and agro-ecosystems and cultural diversity of food systems and cuisines produces more, better and healthier food and richer cultures.

(j) **Food safety and food quality**

The industrialised globalised food system is creating food hazards and unhealthy foods. Food safety and food quality requires ecological production, decentralisation and diversity, instead of chemical production, centralisation and monocultures.
Small farms
Small farms produce more livelihoods and more food than large industrial farms and manage resources more sustainably. The future of agriculture must be based on small farms and small farmers, who are the backbone of agriculture.

Support and subsidies
Support for agriculture is a food security imperative. Public support must be directed at sustainable production and a fair market, not for corporations and traders, toxic chemicals and GMOs and unhealthy food production.

Just and fair prices
Agriculture prices are falling below survival levels to sustain small peasants and landless workers. Food prices are rising and taking food beyond the reach of the poor. A floor must be guaranteed to ensure just prices to farmers. A ceiling must be ensured to keep food accessible to the poor.

Just and fair trade
Current rules of trade benefit corporations and destroy farmers. They promote dumping and deceitful and forced trading. Trade rules must be rewritten to ensure food first, not trade first. Countries have a right to restrict imports, protect livelihoods and ensure food sovereignty.

Food not trade first
Trade first policies have reduced food to a commodity, reduced agro-biodiversity to 7 globally traded crops with a handful of corporations controlling input and trade. Food and nutrition need to be put first in agricultural policies.

7. Practices that are creating another future for food

Amidst the tragedy of farmers’ suicides and hunger deaths induced by policies of globalisation, another agriculture is being born in the country, building on the knowledge and wisdom of an agriculture that has survived over millennia and sustained millions for livelihoods and food. Ecological agriculture and organic farming are transforming the negative economy of high input industrial agriculture into a positive economy based on internal inputs. Direct marketing and fair trade are increasing the incomes of farmers and bringing consumers safe, healthy and affordable food.

A number of initiatives in various parts of the country like Navdanya and its partners across twelve states are reversing the hopelessness of highest seeds with their own seeds of hope. The “Living Democracy” movement is committed to keeping seeds, biodiversity and knowledge of the commons and creating a Bija Swaraj—Seed Sovereignty. The national Jal Yatra and the Jal Sansads are spreading the movement to conserve water and defend community rights. The seeds of Jal Swaraj are being born from the crisis triggered by water destruction and water privatisation. Community seed banks and biodiversity conservation initiatives have saved seeds, and through them the freedom and prosperity of farmers. The
people’s movement in Ralegaon Shindi, Maharashtra had single-handedly reversed desertification and economic collapse. Local residents had built water harvesting systems made up of small dams, and they are now growing crops worth $146,000–188,000 dollars a year. In Gujarat’s 13,000 water-starved villages women members of water councils are taking the lead in creating water-harvesting systems.

The people’s investment in water conservation has also helped recharge groundwater, fill rivers, and increase crop production. For instance, in 1994, the Arvari River came back to life as result of recharge by 500 johads, the traditional tank system for water harvesting. Similarly, Ruparel, once a dead river, has been flowing since 1994 and is now the leading source of water for 250 villages. It was replenished by 250 johads. In the Alwar district of Rajasthan, the youth organisation Tarun Bharat Sangh mobilised people to rebuild johads for which local communities contributed $2.2 million and built 2,500 tanks in 500 villages. The collective decision-making process over construction, maintenance and use of water system has helped prevent conflicts. Tarun Bharat Sangh received in 2001 the Magasasay Award for its work in water conservation.

The above trends show that agriculture which protects the health of the soil, health of plants and animals and health of people is emerging. This agricultural revolution is not just happening in India. It is taking place worldwide. Two hundred sustainable agriculture initiatives in 52 countries which have grown over the past decade, covering 9 million farmers and 29 million hectares has led to an average of 93% increase in per hectare food production [4]. This is much higher than what the green revolution achieved, or what genetic engineering claims to offer. Ecological, sustainable agriculture, does not just protect the environment and small farmers livelihood, it also produces more food.

A better agriculture is not just possible, it is happening. The future of food is emerging on small, ecologically managed biodiverse farms.

References