

CHAPTER 5

INDIA

Evaluation of policy developments

- Compared to the robust growth in other sectors of the economy, the performance of Indian agriculture remains rather poor as indicated by slow and erratic growth rates since the mid-1990s. This has become a key concern of the government as confirmed by the main objective of the 11th Five Year Plan for 2007-12, to make growth more inclusive.
- The agricultural sector in India has undergone significantly less liberalisation than other sectors of the economy. Concerns about food security and poverty with respect to the second largest population in the world lead the government to remain strongly involved in regulating India's agriculture through fixing prices for key agricultural products at the farm and consumer levels, high border protection, bans on or support for exports, and massive subsidies for key inputs such as fertilisers, water and electricity.
- Available assessments of government support provided to Indian agriculture indicate strong fluctuations around a slightly increasing long-term trend, with a substantial increase between the second half of the 1990s and the first half of the 2000s. The most recent evaluations, related to the first half of the 2000s, would suggest that the level of support became higher than that for other emerging economies reviewed by the OECD, but remained significantly lower than the OECD average. At the same time, the overall liberalisation of the Indian economy, in particular less protective policies for manufacturing, should in a longer term lower input costs for agricultural production.
- The government's reactions in 2007 and 2008 to increasing global food prices confirm a long-term practice of countercyclical policies aiming at stabilising domestic prices and insulating domestic markets from fluctuations in world prices. As a result, domestic prices for key agricultural commodities remained significantly below world market levels, thus supporting consumers but taxing agricultural producers.
- Considerable input subsidies, in particular for fertilisers, paid to input suppliers to cover the difference between the supply cost and the price controlled by the government are not an effective way of providing income support for farmers as only a small fraction of such transfers is effectively received by farmers. Moreover, such payments do not encourage farmers or suppliers to improve efficiency and lead to an overuse of inputs with negative environmental effects.
- The budgetary cost of input subsidies and other direct and indirect subsidies for agriculture is significant, which in turn may limit the availability of funding for more effective types of support such as public investment in rural infrastructure and research. The Bharat Nirman programme focuses on rural infrastructure and provides a positive example of a comparatively effective measure. Pressures on scarce land may be relieved by providing alternative avenues of employment and income such as development of the rural non-farm sector, but also through further diversification of agricultural production. In particular, horticulture and food processing industries provide promising options.
- India's WTO commitments with respect to agriculture are characterised by relatively high bound tariffs and permitted levels of support. These give India substantial flexibility in terms of choosing the type of agricultural policy to best serve its interests. In light of agriculture's relatively poor performance, in contrast to other sectors being progressively liberalised, the government could usefully move in the direction of more market-driven policies combined with the reallocation of budgetary support from inputs to infrastructure and rural development.

Box 5.1. India: Overview of agricultural support estimates

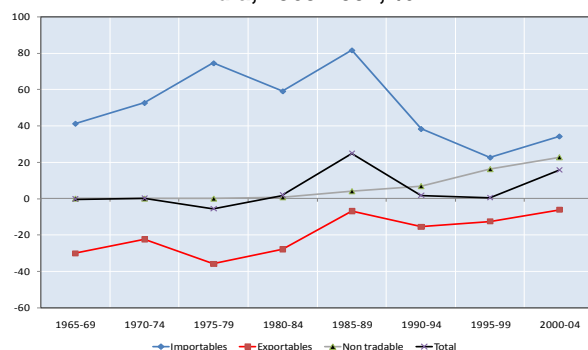
As OECD estimates of agricultural support in India are not available, this box provides a brief overview of the most recent support estimates by other institutions and researchers.

Pursell *et al.* (2007) consider India's agriculture with the main focus on the measurement of distortions to agricultural prices due to price, trade and exchange rate policies that create a gap between actual domestic prices and those under a hypothetical free market. The study computes Nominal Rates of Assistance (NRA) for farmers including adjustments for direct interventions on inputs such as subsidies for fertilisers and electricity. To compare results with distortions in other sectors of the economy the study also provides aggregate NRA for non-agricultural tradables and then calculates a Relative Rate of Assistance (RRA, see Anderson *et al.*, 2008) as a ratio of the level of assistance for agriculture to that for non-agricultural tradables. The period studied is 1965-2004. The study covers 12 agricultural commodities plus the category "fruits and vegetables". The commodities covered are milk (classified as an importable product) and rice, wheat, maize, sorghum, groundnut, rapeseed, soybean, sunflower, sugar, cotton and chickpea (classified as mixed products, meaning that they are exportables, non-tradables or importables depending on their status each year). Figures 5.1 and 5.2 present basic results.

Key conclusions are as follows:

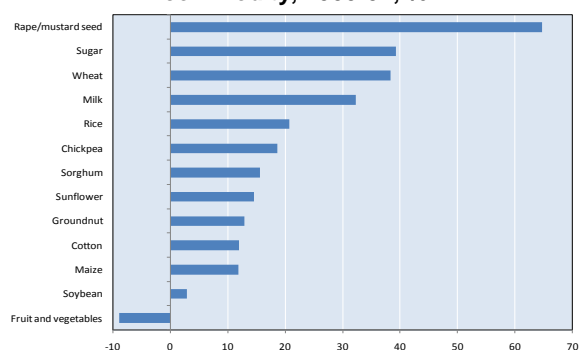
- The weighted average NRA across covered products shows a slight upward trend over the 40 years under study and reached 15.8% in 2000-04.
- The average NRA for importables has been significantly above that for exportables, but the difference has narrowed since the reforms began in the early 1990s. While the NRA for importables averaged 62% in the 25 years to the end of the 1980s, it fell to 32% in the subsequent 15 years. The corresponding NRA averages for exportables were -25% and -11%, respectively.
- The NRAs fluctuate strongly around their trend values. This might be seen as the result of the Indian government's policies aiming at stabilising domestic prices through insulating domestic markets from fluctuations in world prices. In particular, the average NRA for both importables and exportables were lowest in 1974 when international food prices were at record highs and highest around 1987 when international food prices were record lows in real terms. This insulating role of policies is particularly evident for rice, India's main food staple, whose domestic price in real terms has been kept surprisingly stable during the period under study.
- The dispersion of NRAs across the products covered has been wide historically, but it has narrowed considerably since the reforms began in the early 1990s.
- The impact of input subsidies, particularly for fertilisers and electricity used in pumping irrigation water, on the NRA for covered products has been steadily increasing.
- The Relative Rate of Assistance fluctuates, but shows an upward long-term trend. It was strongly negative from the mid-1960s to the mid-1980s reflecting much stronger assistance to producers of non-agricultural tradables compared to that to farmers. But as reforms progressed, leading to substantial cuts in manufacturing protection, combined with the slightly upward trend in assistance for agricultural producers, the RRA turned positive at the beginning of the current decade.

Figure 5.1. Average Nominal Rates of Assistance in India, 1965-2004, %



Source: Pursell *et al.*, (2007).

Figure 5.2. Nominal Rate of Assistance in India by commodity, 2000-04, %



Orden *et al.* (2007) measure the level of support by using several variants of market price support and Producer Support Estimates (PSEs). The study covers the period of 1985-2002 and includes eleven agricultural commodities

(rice, sugar, wheat, corn, sorghum, groundnuts, rapeseed, soybeans, chickpeas, cotton and sunflower). The key conclusion is that the level of support for agriculture in India has been largely countercyclical to world prices. It increased when world prices were low (as in the mid-1980s and the period 1998–2002), but decreased when world prices were high (as in the early and mid-1990s). The results also show steady increases in budgetary payments for input subsidies, which at the end of the period studied counterbalanced negative support through prices. Depending on the method of calculation, the percentage PSE for 2002, the last year under study, varied between 11% and 19.2%.

Gopinath (2008), using the WTO methodology (the Aggregate Measurement of Support–AMS) and referring to the last official Indian notification to the WTO on its domestic support to agriculture (1997-98), updates domestic support calculations from 1998-99 through 2005-06 and then constructs projections for 2015-16. The author concludes that green box support has grown to nearly USD 8 billion in 2005, which is an equivalent of about 7% of the value of agricultural production. Two major reasons for the growth in the green box support are the public stockholding expenditure and relief payments for natural disasters. The product-specific AMS remained negative and was at about USD 4 billion in 2005 mostly because of the wide gap between external reference prices and administered support prices. The non-product-specific AMS, with the allocation of 80% for fertiliser, electricity and irrigation subsidies under special and differential treatment (as India did in its 1997-98 notification), accounted for about 1% of the value of agricultural production. Even under alternative definitions and measurements of some product specific and non-product specific payments, India would still remain well below the *de minimis* exceptions (10% of value of agricultural production).

According to the author, the projected value of India's agricultural production is expected to be about USD 163 billion in 2015. Under the assumption that India's domestic support is again to be limited by the *de minimis* exemptions only, as it is currently the case, India's support could grow up to USD 32-33 billion. The projected *de minimis* exemptions would be about USD 16.3 billion each for product-specific and non-product specific AMS, thus still giving India substantial flexibility in setting and implementing domestic support policies.

Policy context: India's agriculture at a glance

1. Agriculture accounted for 17.8% of India's GDP in 2007 and provides employment to more than half a billion people, 52% of the total workforce. It is dominated by small-scale farming and is characterised by low labour productivity, at about one-sixth of the level in other sectors of the economy. This in turn contributes to low living standards and a high incidence of poverty in rural areas. In the period 2004/05, 34% of India's population lived on less than USD 1 a day and as much as 80% lived on less than USD 2 a day (WB, 2007). Agriculture's importance in India's trade is declining, but it still provides about 10% of India's total exports and remains a significant net provider of export earnings. The share of food in total consumption expenditures is high at around 54% for rural households and 42% for urban households.

Table 5.1. India: Basic economic and agricultural indicators, 2005-07

	2005	2006	2007
Basic economic indicators			
GDP (USD billions)	809	916	1 171
GDP growth (%)	9.2	9.7	9.0
GDP per capita, PPP (USD)	2 230	2 489	2 753
Inflation (annual average, %)	4.2	5.8	6.4
Exchange rate (annual average, local currency per USD)	44.1	45.3	41.4
Population (million)	1 095	1 110	1 123
Population in rural areas (%)	71.3	71.0	70.7
Share in GDP (%)			
Agriculture	18.8	18.3	17.8
Industry	28.8	29.3	29.4
Services	52.4	52.4	52.8
Share in employment (%) (6)			
Agriculture	56.6	55.7	52.0
Industry	18.7	19.3	n.a.
Services	24.7	25.0	n.a.
Average share of income spent on food	n.a.	n.a.	50.4
Basic agricultural indicators			
Agro-food exports (% of total exports)	10.4	10.5	n.a.
Agro-food imports (% of total imports)	3.6	3.7	n.a.
Agro-food trade balance (USD million)	5 374	6 342	n.a.
GAO (% change from previous year)	0.1	n.a.	n.a.
Total cereal production (million tonnes)	240.0	242.9	252.1
Total meat production (million tonnes)	6.0	6.1	6.3
Natural resources and farm structure			
Average farm size (ha)	1.3	n.a.	n.a.
Agricultural land (million ha)	193.3	n.a.	n.a.
Arable land per capita (ha)	0.1	n.a.	n.a.
Land sown to crops (million ha)	190.9	n.a.	n.a.

Sources: OECD Secretariat, 2008; FAO, FAOSTAT database, 2008; IMF, International Financial Statistics, 2008; UN, UN Comtrade database, 2008; World Bank, World Development Indicators, 2008.

Figure 5.3. Shares of agriculture in GDP and employment in India, 1995-2007

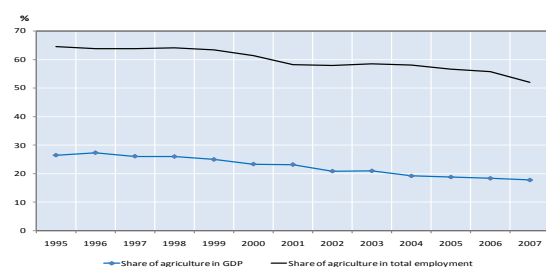


Figure 5.4. Evolution and annual changes of agricultural output in India, 1995-2007

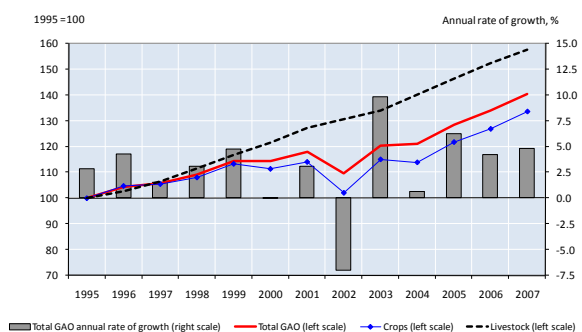
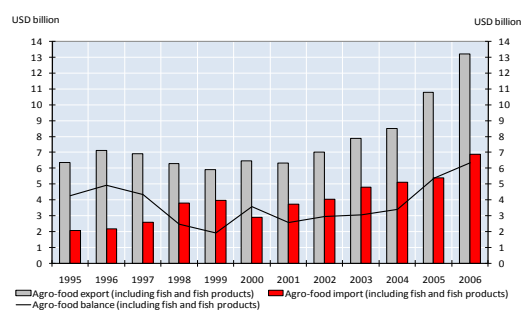


Figure 5.5. Agro-food trade in India, 1995-2007



Policy developments

Main policy objectives and instruments

2. Food security remains the key agricultural policy objective and the main cause for heavy involvement of the Indian government in regulating the agricultural sector. The policy is intended to ensure adequate supplies of food staples at remunerative prices for farmers and to provide food at stable and affordable prices to consumers.

3. The broad policy guidelines and allocation of funds are set within a framework of five year plans. The current, Eleventh Five Year Plan runs from 2007/08 to 2011/12. Its main theme is “Towards Faster and More Inclusive Growth” with agricultural development being considered as one of the critical areas to ensure the inclusiveness of growth. The central target is to accelerate the growth of agricultural GDP to 4% per annum, representing an increase from the disappointing average of 2.5% during the two preceding five years plans. Within the National Food Security Mission, the plan aims at increasing production of cereal and pulses by 20 million tonnes over a five year period. Stronger growth is to be achieved through higher yields underpinned by expansion of irrigation area by 16 million hectares under the Bharat Nirman programme, improved water management of existing irrigation schemes, support for research leading to higher yields in rain-fed areas, diversification to higher value outputs such as fruits, vegetables, flowers, herbs and spices, promotion of animal husbandry and fisheries, provision of easier access to credit at affordable rates, and improvement of incentive structures and functioning of markets (Planning Commission, 2008).

4. At the central level, the Ministry of Agriculture formulates and implements the policy within the five year plan system. The Ministry and other central government institutions are responsible for key decisions such as those relating to research and development, facilitating infrastructure and investment, credit and trade. However, under the Constitution, agricultural policy implementation is in the purview of the individual states, therefore they may make adjustments in line with their needs (WTO, 2007).

5. The regulatory framework governing agriculture has been liberalised since the early 1990s, but less than for other sectors of the economy. This framework includes a wide range of instruments and laws. Two notable examples are the Essential Commodities Act of 1955 (ECA), which gives the authority to the central and state governments to regulate and control production, distribution and pricing of commodities listed as essential for consumers, and the Agricultural Produce Marketing Committee Act (APMC), which regulates the establishment of markets and the marketing of agricultural produce at the state level to ensure that all trade between farmers and initial buyers goes through a regulated market. Other instruments for market intervention include minimum support prices on essential commodities (26 as of September 2008), minimum intervention prices for some other crops, buffer stocks and the Targeted Public Distribution System (TDPS) that distributes subsidised food to India’s poor. Domestic prices are also affected by high import tariffs on agricultural products (40.8% on average), *ad hoc* export bans on some products and export subsidies on some others. Budgetary support is provided primarily for inputs (fertilisers, water, electricity and seeds) and agricultural infrastructure (irrigation, water supply, roads and electrification).

6. In 2007, a National Policy for Farmers was announced aiming at a holistic approach to the development of the farm sector. It suggests a greater focus on the economic wellbeing of farmers, rather than just on production. Emphasis is to be given to empowering farmers with access to assets, providing farmers with a wide range of support services and developing appropriate price policy and risk management measures. The Agriculture Coordination Committee under the chairmanship of the Prime Minister is to oversee and co-ordinate the implementation of this programme (MoA, 2007).

Box 5.2. Food inflation in India

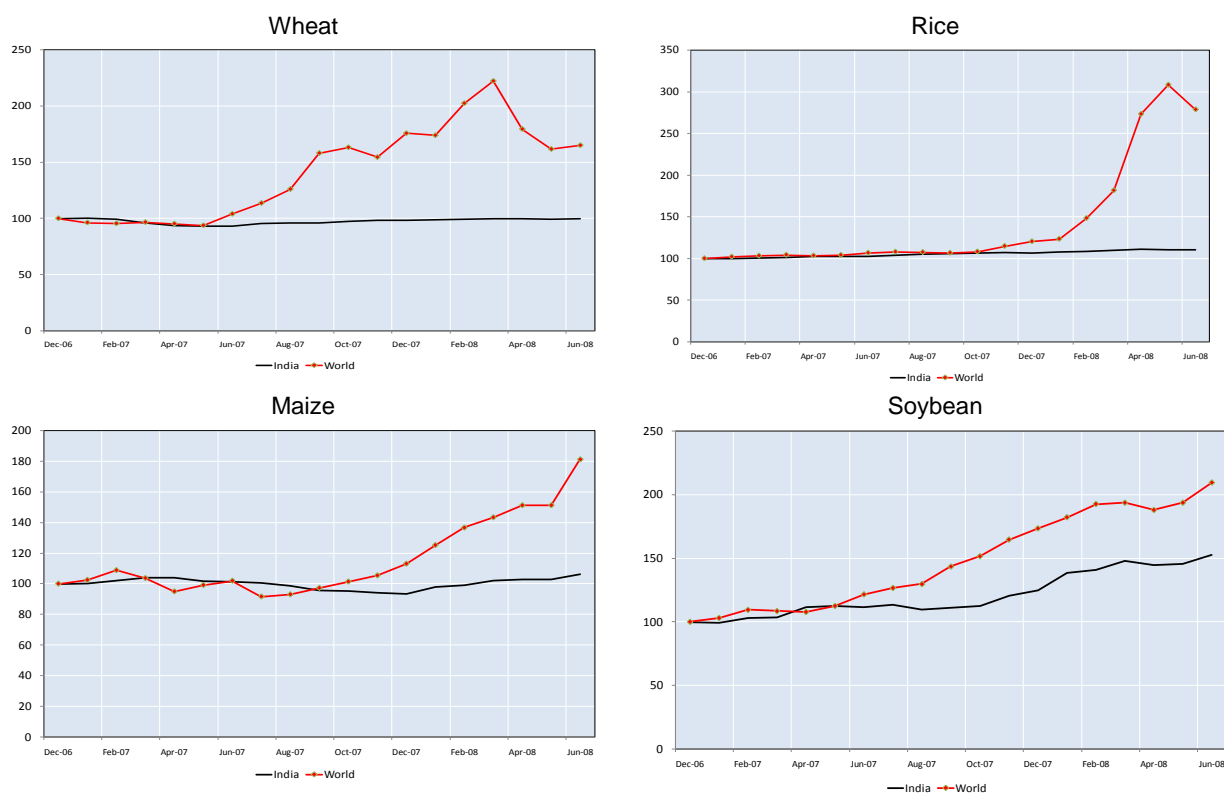
Consumer price inflation in India as measured by the Consumer Price Index for Industrial Workers (CPI-IW) increased from 5.5% year on year in December 2007 to 8.3% in August 2008. Higher food prices, accounting for 46.2% of the consumer price index, together with oil and other commodity prices are considered as major factors contributing to the accelerated rate of inflation, but they emerged within a wider context of rising wages and high budget deficit at above 4% of GDP in 2008. As India's domestic markets for key agricultural commodities have been largely isolated from price movements on international markets, domestic factors appear to be driving the food price increases in 2007 and 2008. In particular, in recent years growth has slowed in agricultural production, including stagnation or even falls in wheat production in 2003-06. Moreover, food grain stocks have fallen below the buffer requirements during the period from mid-2005 to early 2008.

While the Reserve Bank of India (RBI) reacted through several increases in repo rate (the rate at which RBI lends funds to the banks) to suck out liquidity and curb price rises, the government adopted a series of measures targeting food prices and agriculture. These can be summarised as follows (detailed descriptions can be found in other sections of this chapter):

- Incentives for grain imports: cuts and then zero import duties on wheat, rice, maize and pulses to improve grain stocks and relieve price pressures.
- Disincentives for grain exports: export bans on wheat, corn and pulses; an export ban then replaced by the minimum price and then again by an export ban on non-basmati rice; minimum export price combined with an export duty on basmati rice.
- Ban on futures trading in wheat, rice, soya oil, rubber, two varieties of lentils, potato, and chickpea to avoid speculative transactions.
- Increase in the Minimum Support Prices for almost all eligible commodities.
- Debt waiver for farmers.
- Strong increase in input subsidies, in particular for fertilisers.

Domestic food prices remained largely isolated from international price movements for agricultural commodities which confirms India's long-standing approach of countercyclical policies (Figure 5.6); in particular, increases in domestic prices for wheat and rice were just a tiny fraction of changes on international markets; substantial increases in minimum support prices for the season 2008/09 coincides with a fall in prices on international markets and may prolong inflationary pressures in India; similar effects may have substantial budgetary costs of the debt waiver and of increased fertiliser subsidies; export bans may undermine confidence of traditional India's grain importers; in turn imports of grains at much higher international than domestic prices means subsidising international producers and implicit taxation of domestic producers.

Figure 5.6. The evolution of India's monthly wholesale prices for wheat, rice, maize and soybeans compared to the evolution of world market prices, December 2006 = 100, 2007/08



Domestic prices refer to the national wholesale prices; for international prices: wheat is US HRW price; white rice is Thai 100% B second grade, f.o.b. Bangkok; Corn (US), no. 2, yellow, f.o.b. US Gulf ports; soybeans (US), c.i.f. Rotterdam.

Source: <http://eaindustry.nic.in/> and World Bank Commodity Price Data, September 2008.

Domestic agricultural policies

Price and income support policy

7. India implements various mechanisms to safeguard the interests of its farmers from rapid market fluctuations. The most important ones are: the Minimum Support Price (MSP) for key products, the Market Intervention Price (MIP) and Buffer Stocks Operations. In addition, at the state level, there are regulations which limit free movement of grains across state borders, so called “zoning”.

8. Under the Price Support Scheme (PSS), the Commission for Agricultural Costs & Prices (CACP) recommends the **Minimum Support Prices**, currently for 26 commodities: paddy, maize, coarse cereals (jowar and bajra), pulses (arhar, moong, urad, gram, and masur), cotton, groundnuts, sesamum, niger seed, wheat, barley, rapeseed/mustard, safflower, sunflower seed, soybean, toria, copra, de-husked coconut (newly added), jute, sugar cane and tobacco. The Commission considers the cost of production including the cost of paid-out inputs, imputed value of family labour and land rental. The MSPs are normally announced before the commencement of sowing operations of the particular crop and have usually been remunerative and significantly higher than the cost. The MSP, by definition, becomes the floor price and farmers are assured of getting that price. Intervention takes place when market prices of the relevant commodities fall below the MSP, resulting in procurement at the MSP by the Food Corporation of India (FCI) for cereals, the National Agricultural Cooperative and Marketing Federation of India (NAFED)

for pulses and oilseeds, the Cotton Corporation of India and NAFED for cotton and Jute Corporation of India for jute.

9. The MSPs were revised substantially in 2007/08 with the MSP for wheat price rising by one-third compared to the preceding season. For other commodities, the increase ranged from 0-1% (tobacco and sugar cane) to 15% (barley). Newly announced prices for the 2008/09 season suggest much more significant changes (Table 5.2). For the commodities for which the MSPs were announced in September 2008, the increase ranges between 29% and 94%. Only for copra and sugar cane, the MSPs are to remain at about the previous season level.

Table 5.2. Minimum support prices in India for selected commodities, per tonne, 2005-09

Commodity	2005/06		2006/07		2007/08		2008/09	
	INR	USD	INR	USD	INR	USD	INR	USD
Paddy (common)	5 700	128	5 800	134	6 450	155	8 500	198
Maize	5 400	121	5 400	125	6 200	149	8 400	195
Cotton (F-414/H-777/J34)	17 600	394	17 700	408	18 000	432	25 000	581
Wheat	6 500 ¹	145	7 500 ²	173	10 000	240	n.a.	n.a.
Barley	5 500	123	5 650	130	6 500	156	n.a.	n.a.
Sugar cane	795	18	802.5	19	811.8	19	811.8	19

1. An additional incentive bonus of INR 500 (USD 11) per tonne was payable above the MSP.

2. An additional incentive bonus of INR 1 000 (USD 23) per tonne was payable above the MSP.

Source: Ministry of Agriculture (MoA): <http://agricoop.nic.in/> [accessed on 8 October 2008].

10. For commodities not covered by the MSPs, the government arranges for market intervention upon specific request from the states for a specific quantity at a mutually agreed **Market Intervention Price (MIP)**. The losses, if any, are borne by the national government and the states on a 50:50 basis. Horticultural and other perishable agricultural commodities can be procured at the MIP. Interventions are carried out by NAFED and agencies designated by the state governments concerned.

11. **Buffer stocks of food grains** are under the responsibility of the FCI. Seasonally-adjusted buffer stock requirements (buffer norms) constitute the basis for FCI action to accelerate procurement, turn to imports or allow for food grain exports. Between mid-2005 and early 2008, actual food grain stocks were consistently below buffer norms, thus turning India to large imports of wheat, in particular in 2006. In January 2008, buffer norms were at 20 million tonnes, which was 9.1% of India's food grain production in 2007/08, and actual stocks were at 19.2 million tonnes, including 7.7 million tonnes of wheat and 11.5 million tonnes of rice (GOI, 2008). As India's procurement of rice and wheat in 2008 exceeded the buffer norms, India will be in a fairly comfortable position with respect to availability of grains for the TPDS and even for resuming grain exports in 2008/09.

12. India's marketing policies for grains used to be based on the "zoning" provision whereby sale of food grains outside a zone was prohibited. The purpose was to "bottle up" the grain surplus regions and facilitate state purchase of grains at a previously announced procurement price. In effect, zoning led to "balkanization" of the domestic grain market. Recent reforms include the abolition of zones, partly through the adoption of the **Agricultural Produce Marketing Committee Act (APMC)** of 2003.

13. The Ministry of Agriculture circulated a model APMC Act to states and suggested amendments to the State APMC Acts so as to promote investment in marketing infrastructure, motivating the corporate sector to undertake direct marketing and to facilitate a nationally-integrated market. The Ministry requested that states complete the process of modification of the state-level APMC Acts by 2007/08. However, the progress made by states in reforming their agricultural markets varies considerably. For

instance, in Maharashtra and Uttar Pradesh, channelling of produce through the regulated markets is still strictly enforced and the number of products for which prior permission has to be sought before they can be traded across states (so called notified commodities) is still large at 593 in Maharashtra and 347 in Uttar Pradesh. By contrast, in Tamil Nadu, except for 15 commodities, there is no restriction on where and to whom farmers can sell their products.

14. In addition, in 2006, the Food and Safety Standards Act was approved by parliament, rationalising the complex and overlapping web of regulations governing the processing of food products. The government also repealed the Cess Act, thus eliminating the 0.5% cess on agricultural and plantation exports. Further, the Department of Food and Public Distribution is promoting the development of a negotiable warehouse receipt system to increase liquidity in rural areas. To provide the legal framework for the warehouse receipt system, the Warehousing (Development and Regulation) Bill has been enacted in 2008. The Forward Contracts (Regulation) Amendment Bill was also submitted to parliament in 2006 but not yet approved. Its main objective is to permit and regulate financial instruments that would enable the buyers and sellers of commodities to effectively manage the risks of price fluctuation.

Input subsidies

15. Input subsidies for farmers are provided primarily through subsidising fertilisers, electricity, irrigation water and, occasionally, seeds. In addition, commercial banks, co-operatives and regional banks are required to provide credit to agricultural producers for input purchases at interest rates below the market rate.

16. **Fertiliser subsidies** are usually the most important component of budgetary support for agricultural inputs. To encourage the use of fertilisers and to make them available to farmers at affordable prices, prices at which fertilisers are sold to farmers are controlled by the government. As they are lower than the cost of production, the difference is compensated to fertiliser producers. While there were plans to disburse the fertiliser subsidy directly to farmers, this has not been implemented due to practical difficulties. Under the so-called New Pricing Scheme, flat rates of subsidy are determined for various groups of fertiliser manufacturers, depending on production methods and age of manufacturing plants. An extra freight subsidy is paid to cover the transportation costs. Some amounts are also budgeted each year to cover the difference between the price of imported urea and retail prices (WTO, 2007). In 2005/06, fertiliser subsidies amounted to USD 4.1 billion and accounted for 35% of the total allocation for agricultural input subsidies. Within an overall package to support agriculture in the 2008/09 budget, the amount foreseen for fertiliser subsidies increased to INR 309.9 billion (USD 7.8 billion), but in view of some policy announcements, the actual amount spent might be significantly larger at perhaps INR 1 250 billion (USD 27.5 billion), which would be INR 200 billion more than India's defence budget (GAIN-IN8111).

17. **Electricity subsidies** are paid from state budgets to the providers of electricity and result from the difference in the cost of electricity provision and fixed charges paid by farmers. In most states these charges are just lump sums based on the declared horse power of irrigation pumps. These charges do not recover cost, encourage overuse of electricity and lead to overexploitation of ground water. In 2005/06, the electricity subsidy amounted to USD 4.5 billion and accounted for 38% of the input subsidies in that period. However, it then increased to USD 7.1 billion in 2007/08. The amount foreseen for 2008/09 is at around USD 7.6 billion.

18. **Irrigation water subsidies** are the third largest and amounted to USD 3.2 billion in 2005/06, 27% of total amount allocated for input subsidies. The subsidy covers losses incurred by the government irrigation systems resulting from the excess of operating costs over the gross revenue.

19. India's institutional **agricultural credit system** includes an extensive network of co-operative, public sector and commercial banks, but still a large percentage of farmers, most often small landholders, remain dependent on traditional moneylenders or other non-institutional sources of credit. According to government data, 49% of farm households are indebted, with 58% of outstanding loans sourced from institutional channels (including government) and 42% from private informal moneylenders. While there is a wide range of reasons for so called agrarian distress, high debts are among most important factors leading to large numbers of farmers' suicides in recent years.

20. To improve credit flows to the agriculture sector, the government initiated a number of policy measures. One of them was the **Kisan (Farmer) Credit Card (KCC) Scheme** launched in 1998/99. Under this scheme, credit cards were distributed to about 70.8 million farmers by November 2007. Currently the scheme is being extended to include a wider scope of credits and clients.

21. In 2006, the Government announced a package for the revival of the **Short-Term Rural Cooperative Credit Structure** involving financial assistance of INR 135 billion (USD 3.23 billion). The National Bank for Agriculture and Rural Development (NABARD) has been designated as the implementing agency for the purpose. States are required to sign a Memorandum of Understanding with NABARD committing to implement the legal, institutional and other reforms as envisaged in the revival package. In the crop season 2006/07, farmers were eligible for short-term crop loans up to a principal amount of INR 300 000 (USD 7 150) at the **preferential interest rate** of 7%. The government provided an interest subsidy of 2% to NABARD and other banks. This policy was continued in 2007/08 and the amount of INR 16.8 billion (USD 400 million) was allocated for this purpose from the 2007/08 budget. In the 2008/09 fiscal year, the subsidy amount is to remain roughly at the previous year level and the preferential interest rate is to remain at 7% per annum. The target for the agricultural credit disbursement through formal agencies (banks and co-operative credit agencies) has been set at INR 2.8 trillion (USD 70.1 billion) for 2008/09.

22. To address the issue of farm indebtedness, at the end of February 2008, Finance Minister announced a massive **Scheme of Debt Waiver and Debt Relief** for farmers. The budgetary cost was initially foreseen at INR 600 billion (USD 14.3 billion). In line with the announced scheme, all loans disbursed by scheduled commercial banks, regional rural banks, and co-operative credit institutions to small and marginal farmers (farms below two hectares) up to 31 March 2007, which were overdue as of 31 December 2007 and remained unpaid as of 29 February 2008, were to be completely waived. This measure was to cost the government INR 500 billion. For medium and large farmers (farms above two hectares), there would be a one-time settlement programme for all loans that were overdue for the above period by paying 75% of the amount, thus providing a 25% rebate. This would cost the exchequer another INR 100 billion. However, in May 2008 the government further expanded the coverage of the scheme to include plantations, horticulture, dairy and poultry farming as well as other agricultural loans such as taken under the Kisan Credit Card scheme and within self-help and joint-liability groups. Therefore, the original total of INR 600 billion was to be increased to INR 716 billion (USD 17 billion).

23. The implementation of the debt-relief scheme was planned to be completed by 30 June 2008 and all bank branches would be given instructions to prepare a list of beneficiaries for display at their respective premises. The central government would take over the debts and reimburse the banks. The Finance Minister assured bankers that the government would take care of banks' liquidity. Farmers benefiting from the relief would be entitled to new agricultural loans from banks in accordance with normal rules. It is expected that the scheme would cover institutional debts of all small and marginal farmers and 60%-65% of large farmers. As the loan waiver is confined only to loans taken from formal institutional channels, the scheme does not address the issue of farmers' indebtedness to informal lenders.

24. The loan waiver scheme launched a debate in India with many observers concluding that it may end up crippling the agricultural credit system, as happened with a similar loan waiver of 1990. The co-operative credit sector has still not fully recovered from that move and even the commercial banking sector became wary of disbursing crop loans for a long time after the previous waiver. It is argued that the current scheme will destroy the discipline of any functioning credit system. Moreover, the scheme may end up compounding, rather than alleviating, the woes of defaulters and heavily indebted farmers, by making them eligible for fresh credit despite their being unable to earn enough to repay their existing loans (Kaur, 2008).

25. There are a number of commodity-specific programmes within which the government provides support for inputs and general services. The most important one is the **National Horticultural Mission** launched in 2005/06 to stimulate horticultural production through research, adoption of improved technologies, improved post harvest management and marketing, export promotion, and adding value through processing. In 2008/09, the programme is to cover 340 districts in 18 states and two Union Territories at the budget cost of INR 11 billion (USD 262 million).

Crop Insurance

26. The **National Agricultural Insurance Scheme (NAIS)** covers small-scale crop producing farmers who can benefit from a 10% subsidy on their premium payments. The total amount of subsidy foreseen for this scheme in the 2008/09 budget is INR 6.4 billion (USD 144 million). In addition, the Weather-Based Crop Insurance Scheme (WBCIS) has been implemented in the selected areas of Karnataka on a pilot basis. WBCIS intends to provide insurance protection to farmers against adverse incidents, such as deficit or excess rainfall. It has the advantage of settling claims within the shortest possible time. The WBCIS is based on actuarial premium rates but to make the scheme attractive, the premium actually charged to farmers has been restricted to “at par” with NAIS. WBCIS is planned to be implemented in 2008/09 on a larger scale in selected areas of five states and the total subsidy is planned at INR 0.5 billion (USD 12 million).

Consumer measures

27. Distribution of subsidised food to poor consumers is at the core of India’s food security system. It is operated through the **Indian Targeted Public Distribution System (TPDS)** and managed by the Food Corporation of India (FCI), which is also responsible for procurement and buffer stocks (see above). With a network of around 478 000 Fair Price Shops distributing food to about 160 million families, the TPDS is the largest distribution network of its kind in the world. Major commodities distributed include wheat, rice, coarse grains, sugar and kerosene.

28. The key instruments applied by the FCI for food management are the Minimum Support Prices (MSPs) for procurement and the **Central Issue Prices (CIPs)**, the rates at which the FCI disperses food grains to states and union territories for distribution under TPDC. The difference between the economic cost of procured commodities (in addition to the MSP, this includes state taxes, levies, market fees, commissions, transportation and storage charges) and the issue price is reimbursed to FCI. The level of subsidised prices at which wheat and rice are sold to consumers is differentiated depending on the income of the family: highest for families above the poverty line (APL), lower for families below the poverty line (BPL) and lowest for the poorest-of-the-poor (antyodaya ann yojana – AAY). As the MSPs have kept increasing (see above) and the issue prices have been kept unchanged since 2002, food subsidies increased from INR 240 billion (USD 5.8 billion) in 2006/07 to INR 315 billion (USD 7.6 billion) in 2007/08, and to a budgeted INR 327 billion (USD 8.2 billion) in 2008/09 (GAIN-IN8020, 2008).

29. One additional way of supporting consumers is the relatively low VAT rate on food, typically at 4% as compared to 12.5% for other commodities. Moreover, essential commodities, such as grains, are exempt from VAT.

Infrastructure

30. To make India's growth more inclusive and equitable, improvement of rural infrastructure has been given a high priority. The most important programme in this respect is **Bharat Nirman** which is a time-bound business plan for action in rural infrastructure over the four year period (2005-09). The total cost of INR 1 740 billion (USD 41 billion) is to be covered by the central government, states, external aid and market borrowing. Specific targets include:

- Irrigation - to create 10 million hectares of additional irrigation capacity.
- Rural roads - to connect all remaining habitations with population above 1 000 (500 in hilly and tribal areas) with all weather roads.
- Rural housing - to construct 6 million houses for rural poor.
- Rural drinking water - to provide potable water to all uncovered habitations and to provide safe water to all water-quality-affected habitations.
- Rural electrification - to provide electricity to all un-electrified villages and to connect 23 million households below the poverty line.
- Rural telephony - to connect all remaining villages with a public telephone system.

31. Progress in implementation of the programme is regularly posted on the website for the programme. In the first two years of implementation (2005-07) performance was rather mixed with a rather good progress in meeting housing targets but an important shortfall was noted in assisting the water-quality-affected habitations (Planning Commission, 2008).

32. There are several programmes focused on the provision of water for agriculture, some of them components of Bharat Nirman. The most important one is the **Accelerated Irrigation Benefit Programme** with an allocation of INR 200 billion (USD 4.8 billion) in the 2008/09 budget. Within the **Micro Irrigation Programme** 0.4 million hectares is to be covered and an outlay of INR 5 billion (USD 119 million) is foreseen in the 2008/09 budget. A **Rain Area Development Programme** aims at developing agriculture in the non-irrigated areas with a budgetary allocation of INR 3.5 billion (USD 83 million).

33. In addition, India implements a number of so called flagship programmes targeting rural areas. Among them, the **National Rural Employment Guarantee Programme (NREGP)** is most important. The NREGS, launched in 2005, guarantees 100 days of employment in a financial year to any rural household whose adult members are willing to do unskilled manual work. The programme has successively been expanded and in 2008/09 is to cover all 596 districts in the country compared to 330 in 2007/08. The financial outlay budgeted for 2008/09 is INR 160 billion (USD 3.7 billion).

Land policies

34. Indian agriculture is dominated by a large number of small-scale farms that are predominantly occupied by their owners. The number of farms continues to increase due to the fast growing population in

the country, limited possibilities to move out of agriculture, and the **law of inheritance** under which all sons and daughters are equally entitled to a share in the ancestral property. Thus even large agricultural estates get divided and sub-divided with every generation. In addition, existing legislation imposes **ceilings on land holdings**. They are differentiated across states and range between 10 and 18 hectares for irrigated land with two crops, 10 and 30 hectares for irrigated land with one crop, and 15 and 70 hectares for dry land. Ceilings are of two kinds: for existing holdings, land above the limit is declared surplus and taken over by government on payment of compensation; for future acquisitions, the upper limit constraints the amount of land that an individual or a family may acquire with a view to enlarging existing holdings. The surplus land is distributed among small farmers, tenants, land labourers or handed over to village committees or co-operative farming societies.

35. Within this framework, the average size of farm holdings declined from 1.4 hectares in 1995-96 to 1.3 hectares in 2000/01 (the latest available data) and the average ranged from 7.3 hectares in Nagaland to just 0.2 hectares in Kerala. Moreover, while the share of land operated by so called marginal farms (below 1 hectare) and small farms (1-2 hectares) tended to increase, the share of land operated by larger farms (above 10 hectares) tended to decline. These trends clearly indicate that fragmentation of the land use pattern in India is progressing.

36. Although marginal and small holdings up to 4 hectares account for more than 90% of the total number of holdings, the area operated by them is about 60% of the total. This underlines the fact that bulk of the peasantry subsists on marginal holdings and unless the marginal farmers are provided alternative non-agricultural employment or are employed in medium and large farms, the chances of addressing poverty in rural India will remain bleak.

37. As male-dominated outmigration from rural areas and feminisation of agriculture continue, there is a need for further **land reforms to make tenancy legal** and to give well defined rights to tenants and to women farmers. Measures to facilitate the leasing of land for cultivation could help to prevent cultivated land from turning fallow due to migration of owners to urban areas. Lack of recognised tenancy rights makes it difficult for *de facto* tenants to get credit from formal sources and discourages them from investing in the land. Similarly, a woman without property title is unable to get credit when male family members are away.

38. Over the past few years, the policy of promoting **Special Economic Zones (SEZs)** has been strongly supported by the government. The zones are expected to give a strong push to exports, employment and investment. However, their creation raised the issues of displacement of farmers due to land acquisition moves and losses of fertile agricultural land to development. Concerns over land acquisition and displacement of farmers led to extreme violence at Nandigram (a village in West Bengal) in March 2007. Some consider that monetary compensation for the land is not a sufficient solution and that more general social impacts must also be taken into account and addressed adequately.

Biofuels

39. India has spent about INR 410 million (USD 9.5 million) on research and development of alternative fuels during the last three years. The **Ministry of New and Renewable Energy** has been given the responsibility for preparing the national policy on bio-fuels and setting up of a National Biofuel Development Board. The draft policy aims at promoting the cultivation, production and use of biofuels to partially replace petrol and diesel for transport. The general government policy is to base the biofuel production on waste lands and not divert land from the traditional cultivation for biofuels. India has around 35 million hectares of waste land that can be used for production of feedstock.

Agro-food trade policies

Import measures

40. While India's **simple average applied MFN tariff** halved in recent years, falling from 32.3% in 2001/02 to 15.8% in 2006/07, the simple applied tariff on agricultural products remained unchanged and was 40.8% in 2006/07. Besides, the average WTO bound rate on agricultural products at 117.2% in 2006/07 was almost three-fold higher than the average applied rate, thus providing the government with a considerable scope to change tariffs and, hence, creating unpredictability for traders. With the exception of almonds, tariffs on agricultural products are all *ad valorem*, but for some commodities India applies "reference prices" fixed by authorities to calculate customs duty applicable on imports instead of the price quoted by the importer. This applies, *inter alia*, to palm oil and crude soybean oil (WTO, 2007).

41. Applied tariff rates range from 0% to 182%, with above average rates for beverages, spirits and vinegar, miscellaneous edible preparations, coffee and tea, animal or vegetable fats and cereals. While some of these rates are fixed at bound levels, for the majority of tariffs there is a considerable gap between the applied and bound rates, ranging from 10% to 300%.

42. While tariffs are the main instrument of India's trade policy, other measures affecting agro-food imports are also applied (WTO, 2007):

- **Prohibitions:** imports of beef and its products, poultry from countries reporting outbreaks of avian influenza, but also some other less important products are prohibited for reasons of public health and safety or on moral or religious grounds.
- **Tariff rate quotas:** bound tariff rate quotas are maintained on milk powder, maize, sunflower seed and safflower oil, and rape, colza or mustard oil (14 tariff lines at the HS 8-digit level). In addition, tariff rate quotas are applied on imports of selected products, e.g. on tea and pepper, under the free-trade agreement with Sri Lanka.
- **State trading:** continues to be used for imports of cereals (wheat, rice, maize, rye, oats, and coarse grains), and copra and crude coconut oil.
- **Monitoring:** imports of a number of agricultural products considered to be sensitive, including edible oils, cotton, silk, milk and milk products, cereals, fruit and vegetables, spices, tea, coffee and alcoholic beverages. These are monitored by the government. Depending on the market situation, the government adjusts applied tariff rates within the ranges of respective bound rates.

43. Within this range of instruments, import regulations, in particular on grains, are frequently modified to ensure sufficient domestic supply of basic foodstuffs. The most recent examples of such changes, mostly triggered by the recent food price hikes on global markets, are as follows (GAIN-IN8015, 2008 and GAIN-IN8045, 2008):

- **Wheat:** in June 2006 the import duty was reduced from 50% to 5%, and subsequently to 0% from September 2006 until end 2007. In addition, at the end of 2007 the government permitted duty-free imports of wheat flour until end-March 2009. Under the Essential Commodities Act, the government has also permitted states to impose wheat stock limits on the private trade and has banned futures trading to check wheat prices.
- **Rice:** the import duty was abolished from 21 March 2008 through 31 March 2009.

- Maize: the import duty was abolished in January 2007 until December 2007 and the tariff rate quota (TRQ) restrictions were removed. Previously, corn imports were subject to a TRQ, under which up to 0.5 million tonnes were permitted to be imported at a 15% tariff, and quantities above this level were subject to a 50% duty.
- Pulses: in June 2006 the government exempted pulses from the applicable 10% import duty through end March 2009. The government has also authorised government agencies/trading companies to import 1.5 million tonnes of pulses through December 2007. Imports by these agencies would qualify for a subsidy of up to 15%.

Export measures

44. India's agro-food export policy is balancing between an objective of stimulating farmers' income through encouraging exports in particular of horticultural products and a food security objective leading to ad hoc restrictions on exports of commodities regarded as essential for domestic consumers.

45. With the primary objective of boosting agricultural exports, the Government of India announced in 2001 a policy of setting up of **Agri- Export Zones (AEZs)** across the country. The objective was to utilise various support schemes in a co-ordinated manner, selecting particular products for the purpose of developing and sourcing the raw materials in a specified area and then linking this with their processing and packaging for export. The zones receive support from the central and state governments as well as from various governmental agencies in particular for development of infrastructure like storage, transport, processing and value addition facilities, but also in the form of research and development, extension services and inputs. So far, 60 such zones have been established across 20 states. They are monitored by the Agricultural and Processed Food Products Exports Development Authority (APEDA). However, of the total investment of INR 17.18 billion envisaged over 2002-07, just 64% has been realised. Export performance has been better as the total exports from the zones amounted to INR 106.9 billion by March 2008, which was 90% of the value envisaged for 2002-07 (APEDA, 2008).

46. The **Vishesh Krishi Upaj Yojana** (special agricultural products scheme) introduced in 2004 promotes exports of fruits, vegetables, flowers, minor forest produce, dairy, poultry and related value-added products produced domestically. Under the scheme, exporters of the eligible products are entitled to an import duty credit equivalent to 5% of the f.o.b. value of exports in the previous year beginning 1 April 2004 (dairy, poultry and their value products from 1 April 2004), but the government reserves the right to remove any of the products from this scheme. In addition, under the Advance Licence scheme, duty-free import of agricultural inputs required for export production are allowed with an obligation to export associated agricultural products.

47. India last notified its **export subsidies** to the WTO in March 2002 for the period 1996/97-2000/01. Since then, no official notification was submitted to the WTO (WTO, 2007); nevertheless, products such as, *e.g.* cereals, sugar or cotton procured at Minimum Support Prices are occasionally supported by export incentives to cover the cost of handling, processing and internal transportation. For example, in April 2007 the central government announced an export incentive of INR 1 350 (USD 34.2) per tonne for sugar mills in the coastal states and INR 1 450 (USD 36.7) per tonne for non-coastal states. The incentive was a transport subsidy (both internal and ocean freight) initially for sugar exported from 19 April 2007 to 18 April 2008, but then the period was extended until 30 September 2008. Besides, the sugar for exports was exempted from local taxes and fees imposed on domestic sugar which add up to INR 950 (USD 24) per tonne. In addition, sugar exporters were eligible for a duty drawback benefit on the export value (at 5% of export value for white sugar and 4% for raw sugar) for imports of goods under an open general license. On top of support provided by the central government, the government of the coastal Maharashtra state provided an extra subsidy of INR 1 000 (USD 25.5) per tonne

of sugar exported by sugar mills located in the state in 2006/07. Then, the subsidy was extended for the 2007/08 season (GAIN-IN8034, 2008).

48. Since the beginning of the 1990s, India has gradually removed **prohibitions, licensing, and other restrictions on exports**. However, to balance domestic supply and demand for commodities considered as crucial for food security and to stabilise domestic prices, notifications are made periodically to restrict exports or lift export restrictions on selected agricultural commodities (WTO, 2007). While in 2006, such cases were relatively infrequent, they grew significantly in 2007/08 with the rise of food prices on international markets and with growing inflationary pressures on the domestic market. Export restrictions concerned in particular grains and pulses (GAIN-IN8045):

- Wheat: in February 2007, the government banned exports of wheat and wheat products until end December 2007, which was then extended indefinitely.
- Non-basmati rice: in October 2007, the government banned exports of all non-basmati rice. However, responding to demands from rice exporters and some governments of major rice exporting states in India, the government decided to establish a minimum export price (MEP) of USD 425 per tonne on 31 October 2007, which would permit exports of high quality rice, not required for distribution through the public distribution system. However, at the end of December 2007, the government increased the price to USD 500 (INR 20 000) per tonne and further to USD 650 per tonne on 5 March, to USD 1 000 per tonne on 27 March 2008, and completely banned exports as from 1 April 2008.
- Basmati rice: to limit exports, the MEP was gradually increased from USD 900 per tonne on 5 March 2008, to USD 1 100 per tonne on 27 March 2008, and to USD 1 200 per tonne on 1 April 2008. At the end of April 2008, the government announced that MEP would be reduced to USD 1 000 per tonne but an export duty of USD 200 per tonne would be imposed.
- Corn: export ban effective as from 3 July 2008 to 15 October 2008.
- Pulses: export ban imposed in June 2006, originally in force up to end of March 2008, but then extended again for 12 months.

49. In addition to temporary restrictions, India prohibits exports of certain agricultural products for health, environmental, and religious reasons. For example, for social and religious reasons such a prohibition is applied for exports of beef and offal of cows, oxen and calves. In turn, export licensing is applied for live animals and some animal products, seeds, seaweed and other algae, residues and waste from food industries, as well as pure races of silk worm and silkworm seeds. State trading is applied for onions and gum karaya. India's export of sugar is subject to tariff rate quotas applied by the United States and the EU, which are implemented through a sugar producer's co-operative called the Indian Sugar Exim Corporation Limited. Export taxes on coffee, spices, tobacco and some other agricultural commodities were removed in 2006 (WTO, 2007).

Trade agreements

50. India attaches great importance to the multilateral trading system, but is also moving to promote bilateral and regional trade agreements. Its first real free trade agreement (FTA) was signed in 2000 with its neighbour Sri Lanka. Since then, the number of FTAs signed by India increased substantially, mostly within the region (South Asian Free Trade Area – SAFTA; Asia Pacific Trade Agreement - APTA) or with selected Asian countries (in addition to Sri Lanka, also with Bangladesh, Nepal, Singapore and Thailand). Most recently, negotiations between India and the Association of South East Asian Nations (ASEAN) have

been completed with the objective to sign a comprehensive free trade treaty in December 2008. Negotiations for a free trade agreement between India and the European Union are on track and are likely to be completed in 2009.

51. Both the coverage and tariff concessions provided by India to its agriculture within these agreements are rather limited. In terms of coverage, India's offer ranges from 8.4% of its agricultural tariff lines (WTO definition of agriculture) for members of APTA to 92.5% in the case of the agreement with Sri Lanka. Tariff concessions are even smaller as the average agricultural tariff ranges from 37.2% for SAFTA to 40.6% for APTA compared to the MFN average at 40.8%. However, for Sri Lanka the average is significantly smaller at 7.6% and for the least developed country members of the SAFTA (Bangladesh, Bhutan, Maldives, and Nepal) the agricultural tariff is 30.0% (WTO, 2007).

52. Also under the **India-ASEAN agreement**, India's negative list of agricultural commodities for which no tariff concessions would be exchanged is long and includes honey, cut flower, vegetables, coconut, cashew nut, most fruits, grains (wheat, maize, rice, millet), peanuts, copra, soybeans, cotton, sunflower seed, castor oil, sesame seed, mustard seed, beer, wine, whisky, rum, gin, vodka, tobacco and products, milk and milk products, fish and fish products, poultry and poultry products, processed food, fruit juices and natural rubber. Imports under this negative list would not exceed 5% of total bilateral imports by India from any other ASEAN member country. Some preferences would increase during the implementation period beginning 2009 until 2018. For example, India's import duty on palm oil would come down to 37.5% from the bound level of 80%; on refined palm oil to 45% from the current 90% bound level; on black tea, pepper, and coffee to 40% from the current 100% (GAIN-IN8105).

Bibliography

Anderson, K., M. Kurzweil, W. Martin, D. Sandri and E. Valenzuela (2008), "Methodology for Measuring Distortions to Agricultural Incentives," *Agricultural Distortions Working Paper 02*, World Bank, Washington, DC, revised January.

APEDA (2008), www.apeda.com/apedawebsite/trade_promotion/Agri_Export_Zone.htm;
<http://dgft.delhi.nic.in/> [viewed 1 October 2008].

GAIN-IN8015 (2008), *India, Grain and Feed Annual*, USDA FAS, 20 February.

GAIN-IN8020 (2008), *India, Indian Budget IFY 2008-09: Agricultural Highlights*, USDA FAS, 11 March.

GAIN-IN8034 (2008), *India, Sugar Annual*, USDA FAS, 11 April.

GAIN-IN8045 (2008), *India, Grain and Feed, Quarterly Lock up Report: May*, USDA FAS, 6 May.

GAIN-IN8105 (2008), *India, Weekly Highlights & Hot Bites*, #36, USDA FAS, 10 September.

GAIN-IN8111 (2008), *India, Weekly Highlights & Hot Bites*, #39, USDA FAS, 1 October.

Gopinath M. (2008), *Improving WTO Transparency: India's Shadow Farm Support Notifications*, conference draft, IFPRI.

Government of India (GOI, 2008), *Economic Survey 2007-08 and previous issues*, Annual, Ministry of Finance, New Delhi, at <http://indiabudget.nic.in>.

Kaur, S. (2008), "India's Agricultural Policy Developments: 2006-08", Report submitted to OECD.

Landes, M. (2008), "The Environment for Agricultural and Agribusiness Investment in India", *Economic Information Bulletin* No. 37, USDA/ERS, July.

Ministry of Agriculture (2007), *National Policy For Farmers 2007*, Department of Agriculture and Cooperation Ministry of Agriculture, Government of India.

- Ministry of Agriculture (2008), http://dacnet.nic.in/eands/msp/msp_5sept08.pdf / [viewed 5 October 2008].
- Orden D., F. Cheng, H. Nguyen, U. Grote, M. Thomas, K. Mullen, D. Sun (2007), "Agricultural Producer Estimates for Developing Countries. Measurement Issues and Evidence from India, Indonesia, China, and Vietnam", *Research Report 152*, IFPRI.
- Planning Commission (2008), *Eleventh Five Year Plan 2007-12*, vol. III: *Agriculture, Rural Development, Industry, Services, and Physical Infrastructure*, Planning Commission, Government of India, Oxford University Press, New Delhi.
- Pursell, G., A. Gulati and K. Gupta (2007), "Distortions to Agricultural Incentives in India", *Agricultural Distortions Working Paper 34*, December.
- WB (2007), *World Development Report 2008, Agriculture for Development*, World Bank, Washington, DC.
- WTO (2007), *Trade Policy Review, Report by the Secretariat, India*, 18 April.