

KNOWLEDGE PARTNERSHIP PROGRAMME

**Incorporating International Best Practices In The Preparation
Of Agricultural Outlook And Situation Analysis Reports For
India - Phase II**

**By
FAO/ UNDP**

**Quarterly Agriculture Outlook Report
July- Sept, 2013**



November 2013



NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH
 Parisila Bhawan 11 Indraprastha Estate New Delhi 110 002 India
 T +91 11 2337 9861-63 F +91 11 2337 0164 E infor@ncaer.org W www.ncaer.org



Quarterly Agricultural Outlook Report July–September 2013

Agricultural Outlook and Situation Analysis Reports

Quarterly Agricultural Outlook Report July–September 2013

Under the Project Commissioned by
The National Food Security Mission
Ministry of Agriculture

November, 2013

Prepared by
National Council of Applied Economic Research
agrioutlookindia.ncaer.org

About the Project

The need for monitoring and analysis of emerging food scenarios is important for India both because of significant dependence of output on the monsoon rains and the fact that globally India is one of the major consumers of food crops influencing markets. Management of agriculture from a public policy perspective requires organisation of this information and analysis as inputs to policy making.

Against this backdrop the National Food Security Mission (NFSM), Ministry of Agriculture, commissioned a 3-Year study to National Council of Applied Economic Research (NCAER) in 2011–12 to bridge this important gap in analytical inputs for understanding the emerging agricultural scenarios both in the short-term of one or two quarters and also in the medium to longer term.

Accordingly, the agricultural outlook and situation analysis undertaken in this study refers to the main crop based food items: cereals (specifically rice, wheat, jowar, bajra, maize and overall coarse grains), pulses (gram, tur), selected fruits and vegetables (banana, potato, onion), sugarcane and edible oils (groundnut, rapeseed/mustard, soybean). In addition the analysis also covers milk, one livestock product.

The three main outputs of the proposed work are:

- (1) A **Quarterly Agricultural Outlook Report** that integrates the assessment of key indicators relating to agriculture with a focus on food sectors. The reports will include assessment of the current situation on inputs, output and market conditions and also forecasts of key indicators for the full year based on models developed for the purpose.
- (2) A **Semi-annual Agricultural Outlook Report** which provides a longer term perspective for the food sector. These reports will present an analysis of alternative scenarios of output and consumption for the food crops taking into account the available information and based on the suitable economic models that permit longer term projections.
- (3) **Monthly briefings** on the prevailing agricultural conditions.

Implementation

NCAER has set up a study team to carry out the study.

An advisory committee has been formed to provide broad guidance to the implementation of the study. The Committee comprises of Dr Shekhar Shah, DG, NCAER as Chair, Dr Ashok Gulati, Chairman, Commission on Agricultural Costs and Prices, Prof. Ramesh Chand, Director, National Centre for Agricultural Policy (NCAP), New Delhi and Prof. Mahendra Dev, Director, Indira Gandhi Institute for Development Research (IGIDR), Mumbai. Representative from FAO and DFID are Special Invitees to the Committee meetings.

A Technical Support Group comprising of key officers from different departments of the government and experts has also been formed to interact with the study team to improve the work under the study.

Agricultural Outlook and Situation Analysis Reports

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Shekhar Shah
Director-General



PREFACE

The global economy has continued to make slow progress in reconstructing the growth and trade environment after the financial and economic crisis of 2008. The period from about 2008 has also seen highly volatile world food prices. In 2007 and 2008 the FAO Food Price Index rose by more than 20 per cent annually. After a decline in 2010, it again rose by 17 to 22 per cent in 2010 and 2011. International food prices have now shown a decline in 2012 and also in the first six months of 2013. Sharp swings or increases in prices have serious implications for both food producers and consumers. High food price inflation has serious political and social ramifications, in the same way as slowing economic growth does.

India is now experiencing both slower economic growth and high food prices. Although, uncertain rainfall conditions produce year-to-year variations in production and prices, there are also structural factors that lead to continued high prices, including public procurement practices. Increasing the production of higher value food such as fruits, vegetables and livestock would have to be our medium-term goal. Investment in improving the productivity of these sectors is necessary for ensuring sustained production gains.

Understanding evolving conditions on the ground is necessary for designing and implementing new initiatives. NCAER has undertaken a series of quarterly and semi-annual *Agricultural Outlook Reports* to review and examine conditions relating to production, trade, demand and the prices for food commodities. These *Reports* are prepared under a grant from the National Food Security Mission, Ministry of Agriculture. The NCAER reports are available from NCAER's website (www.agrioutlookindia.ncaer.org) and the website of the National Food Security Mission (<http://nfsm.gov.in/NCAER.aspx>).

This quarterly agricultural outlook report is the sixth in this series and reviews production estimates for major food commodities in the 2013 kharif season, which has benefited from a bountiful monsoon, which in turn have brightened the prospects of a good harvest this year. Faster agricultural growth in the current year becomes all the more important since everything else in the economy still remains profoundly sluggish.

This work would not have been possible without the sustained support and encouragement of senior officials in the Ministry of Agriculture. We are grateful to the Advisory Committee and a Technical Support Group set up by the Ministry for guiding this work. My thanks go to the study team led by Dr Shashanka Bhide, NCAER Senior Research Counsellor, for the careful analytical work that goes into preparing these quarterly and semi-annual *Reports*.



Shekhar Shah
Director-General

New Delhi
November 28, 2013





कृषि आयुक्त
भारत सरकार
कृषि मंत्रालय
(कृषि एवं सहकारिता विभाग)
कृषि भवन, नई दिल्ली - 110001
Agriculture Commissioner
Government of India
Ministry of Agriculture
(Department of Agriculture & Cooperation)
Krishi Bhawan, New Delhi-110 001

Foreword

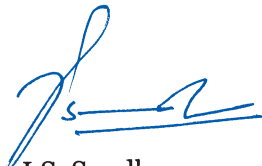
Agricultural sector is slated to make a significant contribution to the overall economic growth of the country in the current year. Favourable rainfall in the monsoon season of 2013 has brightened the prospects of a strong performance of agriculture as both kharif and rabi season production would benefit from the good rainfall in the year.

While there have been some deviations from the long period averages across regions, the overall impact of the rainfall in the current monsoon season on agricultural production is expected to be positive. The initial assessment of production of major food commodities provided in the 1st Advance Estimates points to the increased production of foodgrains, oilseeds and sugarcane.

The sixth Quarterly Agricultural Outlook Report prepared by NCAER under the project commissioned by the Ministry of Agriculture provides a comprehensive review of the food economy covering production conditions, inputs, prices and trade as the first half of the agricultural year is drawing to a close. The report also highlights the adequate supply position globally for the major food commodities and moderation in prices of edible oils and cereals. These are positive trends for our food sector.

I hope that these reports are found to be of value in understanding the trends in the food economy and implications of such developments to all the stake-holders in the sector.

New Delhi
December 2013


Dr. J.S. Sandhu
Agriculture Commissioner
Department of Agriculture and Cooperation
Ministry of Agriculture



Highlights

The prospects of a strong agricultural growth performance in 2013–14 have improved with a favourable monsoon in the current year. The Prime Minister's Economic Advisory Council has projected a growth of 4.8 per cent for GDP from agriculture and allied sectors in 2013–14 as compared to 1.9 per cent in 2012–13. As the economic activity at the overall level is expected to register about the same pace of growth in the current year as in 2012–13, contribution from agriculture towards sustaining overall economic growth would be significant. The heavy rains and floods following the cyclone in eastern region of the country have been adversities in the crop season. The heavy rains and floods in Uttaranchal in the early part of the monsoon season took heavy toll on life and property.

The high food inflation experience of the recent year and a half has both supply and demand side explanations. There are cost push elements such as the rise in input prices and demand pull elements such as the rising demand for fruits, vegetables and livestock products. There will be a need to push for increased production and also investments in post-harvest marketing, and management of food commodities to reduce losses and improve efficiency of supply chains.

An important dimension on the price front is also the global supply situation which has both positive and challenging ramifications for India. For the current year global supplies have been projected to be adequate to meet the demand for the major food commodities and the year-end stocks are expected to be higher than the beginning stocks. This implies reasonably priced imports of edible oils and pulses but also poses competitive pricing environment for exports.

The 1st Advance Estimates of production brought out by the Ministry of Agriculture place kharif foodgrain production at 129.3 million tonnes, 1.1 million tonnes above the kharif production in the previous year. An assessment based on rainfall and trend pattern of production places, production of kharif foodgrains at 133.5 to 138.4 million tonnes, well above the 1st AE.

Kharif rice production for the current year has been projected at 92.3 million tonnes as per the 1st AE by the Ministry of Agriculture. Our own assessment based on rainfall data and trend pattern places kharif rice production at 94.3–97.3 million tonnes an upward revision of our projection in the previous quarterly report. The WPI for rice is expected to show some decline in December but the year on year rate of increase is projected remain at double digit rates in the short-term.

The kharif coarse grain production has been projected at 31 million tonnes in the 1st AE. Our own projections are 33.2–34.4 million tonnes based mainly on estimates of higher production of bajra.

In the case of oilseeds, kharif groundnut and soybean production this year is expected to surpass the levels achieved in 2012–13, although the soybean production prospect has to be tempered to some extent by the unseasonal heavy rains in the major growing regions.

Sugarcane production is projected to increase to 341.8 million tonnes as per the 1st AE for 2013–14 from the estimated production of 339 million tonnes in the previous year. Our





assessment places production at 347.8–353.0 million tonnes based on the improved rainfall conditions this year relative to 2012–13.

Among the fruits and vegetables covered in the Outlook Report, we project potato production at 46.2 million tonnes, an increase over the 42.5 million tonnes in 2012–13. Production of onion is also projected to increase to 18.1 million tonnes from 16.8 million tonnes in 2012–13 due to the prospects of increased production in the rabi season. Production of banana is projected at 33.8 million tonnes, an increase of 3.5 million tonnes over the previous year.

In the case of milk, we have projected an increase of about 6 million tonnes over the estimated production of 132.4 million tonnes in 2012–13. The increased production follows improved availability of feed and fodder with the projected prospects for higher agricultural production in the current year. The WPI for milk has increased in the range of 3.0–5.8 per cent in the three month period of July–September 2013. As prices of inputs in the post-production processing and distribution have increased, there may be some upward pressures on the prices in the short-term.

The projected supply-demand balances for 2013–14 show that supplies are expected to match demand for most of the commodities analysed implying moderation in the price scenario with the arrival of rabi harvest in the markets. Efforts to modernise marketing and storage infrastructure for the perishable products are needed to reduce the volatility in the prices of perishable produce.

Acknowledgements

The study team wishes to place on record the guidance, support and assistance received from a number of organisations and individuals. Mr Ashsih Bahuguna, Secretary, Department of Agriculture and Cooperation has been very supportive of the work and has encouraged us in the conduct of the study. He presides over the monthly briefings which provide new insights to our work on outlook assessment. Dr J.S. Sandhu, Agriculture Commissioner and Mr Sanjay Lohiya, Joint Secretary (Crops) have provided valuable guidance to the study team. A number of officials from the Ministry and DES have provided data, opportunities for interaction and guidance in the course of the study. Dr B. Gangaiah, Economic and Statistical Adviser, Directorate of Economics and Statistics, Nodal Officer for the study, has encouraged us in our work providing feedback and data whenever requested.

Dr Ashok Gulati (CACP), Prof. Ramesh Chand (NCAP), Mrs S. Bhavani (Ministry of Agriculture), Prof. Mahendra Dev (IGIDR), Mr Mukesh Khullar and Dr Shekhar Shah (NCAER) have provided guidance as members of the Advisory Committee and Dr Peter Kenmore (FAO) as Special Invitee to the Advisory Committee meetings. The Technical Support Group (TSG) set up for the study has included a number of officials and also other experts.

Reports of USDA, FAO and Department of Agriculture and Cooperation have been major sources of data and information for the report. We have used information and data from a number of other sources also. We have noted the specific references used for our assessment of outlook in the report.

A number of experts made presentations in the monthly briefings organised at the Ministry of Agriculture under the activities of this study. We acknowledge their support as they shared their experience and knowledge on different aspects of assessment of agricultural outlook.

Study Team

Shashanka Bhide (Project Leader), A. Govindan, Saurabh Bandyopadhyay, Laxmi Joshi, S.K. Mondal, V.P. Ahuja, Mondira Bhattacharya, Charu Jain, Amar Singh, Palash Barua, Himani Gupta, Praveen Sachdeva, Prem Mohan Srivastava, Rahul Thakur and Abhitej Kodali

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PART I

Overview of Agricultural Outlook

I.1 Backdrop

The present report is the sixth in the series of quarterly Agricultural Outlook and Situation Analysis Reports prepared by the National Council of Applied Economic Research under a project commissioned by the National Food Security Mission, Ministry of Agriculture. The first report in the series was released in June 2012. These reports cover production, prices and disposition of output of the major food commodities.

In the present report we provide an assessment of the kharif season output for the current year. We also provide a review of the trends in prices, trade and emerging supply-demand balances of the major food commodities for 2013–14. The report also provides a review of the prevailing global supply-demand conditions and its implications for India.

The outlook report is organised in five chapters. The first chapter provides an overview of current trends in the economy in the context of their implications to the food sector. The global scenario of the food commodities with respect to production, prices, trade and stocks has been reviewed in the second chapter. We then present an assessment of the domestic conditions affecting supply-demand balances for the selected commodities in the third chapter. Commodity specific discussion is provided in Chapter IV. Concluding remarks are presented in the final chapter.

I.2 Agriculture to Support Overall Economic Growth in 2013–14

The overall economic growth for 2013–14 has been estimated by a number of agencies to be close to 5 per cent. The Reserve Bank of India (RBI), in its Second Quarter Review of the Economy, has projected overall GDP growth in 2013–14 at the same level as in the previous year (http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/SMQ271013_FL.pdf). The Economic Advisory Council to the Prime Minister (EAC) has projected economic growth in 2013–14 marginally higher than in 2012–13 at 5.3 per cent¹. The IMF, World Bank and ADB expect India's GDP growth in 2013–14 to be less than 5 per cent.

One of the continuing concerns on economic front is the high inflation rate reflected mainly in food and fuel commodities. The consumer price index for industrial workers, a key indicator prices at the retail level, rose by 10.7 per cent during April–September 2013 over the same period in 2012. Inflation rate at more moderate rate levels will be essential to achieve resumption of accelerated investment and consumption activity.

The demand for agricultural exports is likely to be affected by the high relative price of India's exports in comparison to the international prices. While the exchange rate depreciation of the rupee in 2013 has improved competitiveness of India's exports, growth in export demand is likely to be limited by the slow growth in the world economy. The



The overall economic growth for 2013–14 has been estimated to be close to 5 per cent by a number of agencies.

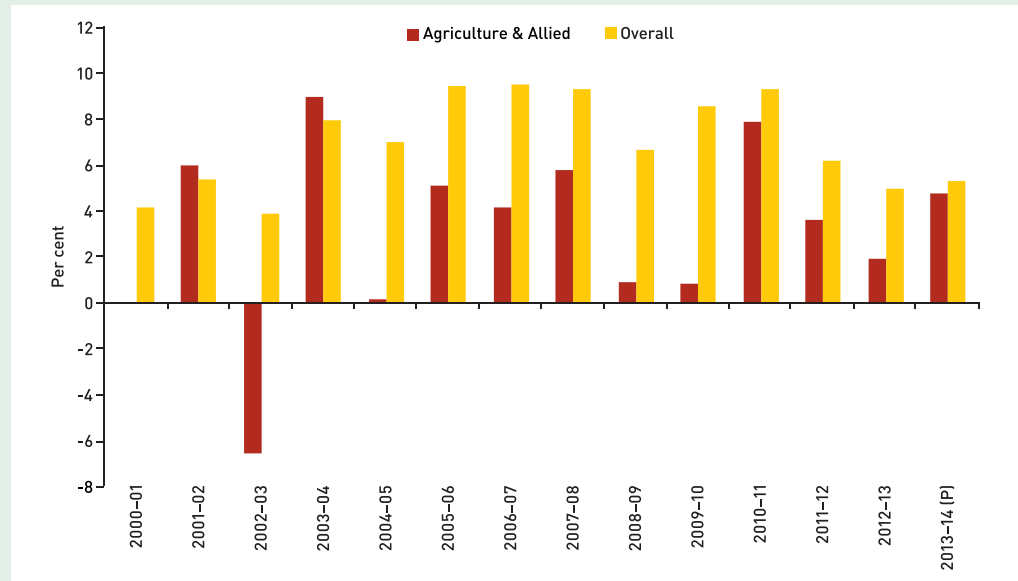
1. <http://eac.gov.in/reports/EconomicOutlook201314.pdf>

The agricultural growth itself, however, is expected to improve significantly in the current year.

overall demand conditions are, therefore, likely to be below the recent trend.

The agricultural growth itself, however, is expected to improve significantly in the current year. The PMEAC has projected GDP from agriculture to increase by 4.8 per cent in 2013–14 as compared to 1.9 per cent in the previous year. Improved agricultural growth is expected to be a catalyst for rural economic activity.

Figure I.1: GDP Growth – Agriculture & Allied vs Overall



A favourable rainfall this monsoon has bolstered agricultural production outlook for 2013–14, after a below normal rainfall in the previous year.

A favourable rainfall this monsoon has bolstered agricultural production outlook for 2013–14, after a below normal rainfall in the previous year. According to the 4th Advance Estimates released by the Ministry of Agriculture, there was only a marginal decline (1.5 per cent) in total food grain production in 2012–13 at 255.4 million tonnes compared to 259.3 million tonnes in 2011–12. While 2012–13 rice production was close to the record production of 2011–12 at 104.4 million tonnes, there was a decline of around 2.5 million tonnes in the production of wheat at 92.5 million tonnes, and 2 million tonnes in coarse grains at 40.1 million tonnes. However, pulse production was a record 18.5 million tonnes. Total oilseed production was a near record 31 million tonnes compared to 29.8 million tonnes the previous year, whereas sugarcane production declined by 6.9 per cent to 336 million tonnes (Figure I.2).

Figure I.2: Agricultural Production Trends



4th Advance Estimate for rice, wheat, coarse grains, pulses, oilseeds and sugar cane.

I.3 The Global Setting

The world production of the major food commodities in 2013–14 has been projected to be higher than the previous year. Wheat, rice, coarse grains comprising mainly of maize, soybean, palm oil and milk are projected to register increased production on the back of higher prices at the time of planting which helped improve sown area and favourable weather conditions which improved crop yields. In the case of vegetable oils and pulses for which India depends significantly on international supplies, the prospects are favourable with the expected increase in the production of palm oil and improved production of pulses in exporting countries. It is the exports from India which face greater competition on account of improved global supplies and declining prices.

Overall the assessment of a number of international agencies suggests that the year-end stocks and stocks-to-use-ratio of most major food commodities will be higher than the previous year although consumption levels will also rise. In the case of wheat and coarse grains, the weaker maize prices would restore feed demand for maize and reduce dependence on wheat for feed.

The depreciation of the rupee during 2013 has provided some partially regained price competitiveness of Indian exports but policy attention to trade flows will be needed to manage the sharp changes in domestic prices in food commodities.

The world production of the major food commodities in 2013–14 has been projected to be higher than the previous year. Wheat, rice, coarse grains comprising mainly of maize, soybean, palm oil and milk are projected to register increased production.

The overall rainfall received during the monsoon period of June–September in the current year has now been measured at 6 per cent above the long period average (LPA) for the season.

I.4 Favourable Monsoon Brightens Kharif and Rabi Production Prospects

The overall rainfall received during the monsoon period of June–September in the current year has now been measured at 6 per cent above the long period average (LPA) for the season. In comparison, in 2012, the rainfall during June–September was 8 per cent below the LPA.

This year heavy rains were experienced in June and July, and relatively weak rainfall in August and September. The rainfall was deficient or scanty in the north-western, eastern and north-eastern regions in August and September.

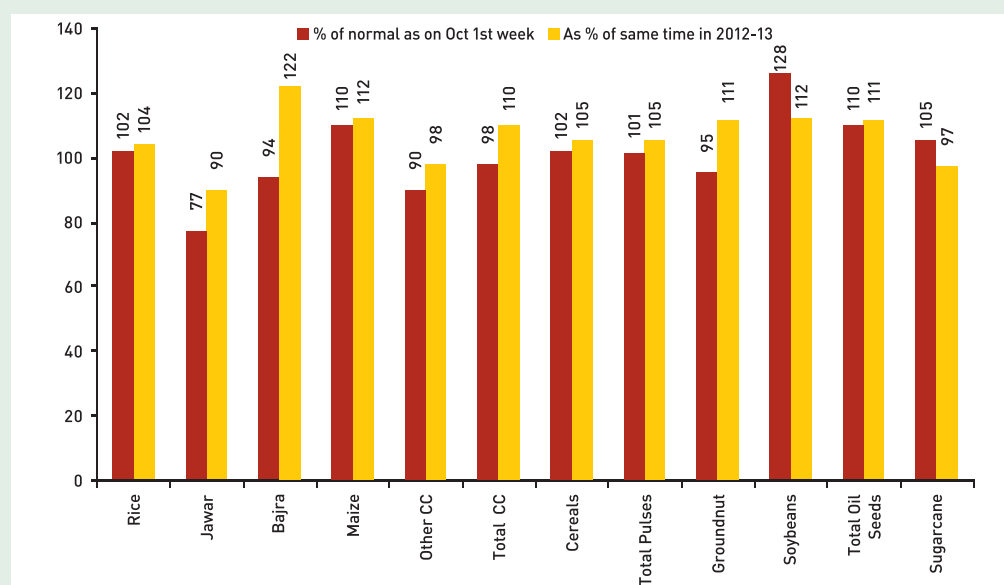
Table I.1. Pattern of Rainfall in 2012 and 2013 by Major Geographical Regions: % of Normal

Region	June–Sept 2012	June '13	Jul '13	Aug '13	Sep '13	June–Sept 2013	Oct '13
Northwest	93	31	74	116	124	109	127
Central	96	61	96	100	120	123	139
South Peninsula	90	71	81	115	93	72	126
North-East	89	99	87	74	106	115	158
All India	92	132	106	98	86	106	162

Source: Based on Indian Meteorology Department publications/ data in their website.

The adequacy of rainfall at the beginning of the monsoon season is also reflected in the estimates of crop area sown by the beginning of October 2013 by when normally 92 per cent of the kharif rice sowing would be over. Based on the data available till October 4, 2013 for kharif cereals, pulses and oilseeds as a group, area sown in kharif 2013 is estimated to be higher than the area sown in kharif 2012. Only sown area under kharif jowar this year is lower than the estimated area under the crop in 2012–13 by the beginning of October. There may have been some substitution of land from jowar to other crops such as pulses and oilseeds. Area planted to sugarcane in 2013 is lower than the area planted last year. Normally, all planting of sugarcane would be over by this time. Figure I.3 presents the pattern of area sown in kharif 2013 relative to the normal pattern and actual area sown in kharif 2012.

Figure I.3: Area Sown Under Major Crops in Kharif 2013 as % of Normal Sown Areas and Area Sown at the Beginning of September 2013



Source: Crop Weather Watch Report, October 4, 2013, Ministry of Agriculture.

Input availability

Besides water, the critical input supplied in abundance in most parts of the country by nature this year, fertilisers and good quality seeds are the important inputs affecting productivity of land. In the case of fertilisers, while urea sales have increased by 10.8 per cent in April–September 2013 over the same period in 2012, the sales have been less in the case of DAP, MOP and complex fertilisers during April–September 2013 as compared to the same period in the previous year (Table I.2). As fertiliser sales and consumption would be expected to increase to support higher agricultural production, the decline in the sale of DAP, MOP and complex fertilisers requires monitoring of the factors affecting consumption of these fertilisers.

Table I.2: Fertiliser sales during April–September during 2012 and 2013

Fertiliser	April–September 2012 (million tonnes)	April–September 2013 (million tonnes)	April–September 2013 (% change YOY)
Urea	13.58	15.05	10.8
DAP	4.08	3.16	-22.6
MOP	1.10	1.07	-2.8
Complex	3.95	3.20	-19.0

Source: Ministry of Agriculture.

Targets for institutional credit for 2013–14 have been set at 21.7 per cent higher than the achievement in the previous year. The actual growth in 2012–13 was 18.9 per cent, exceeding the target by 5.6 per cent. Given the favourable production conditions for agriculture in the current year, the demand for institutional credit is likely to be at the trend level. In the case of seeds, availability of certified and quality seeds for the major commodities is estimated to be adequate to meet the requirements in most of the food commodities. In the case of maize, the availability is less than estimated requirement leading to the need for increased supplies from the private sector suppliers and reliance on own supplies by the farmers.

Targets for institutional credit for 2013–14 have been set at 21.7 per cent higher than the achievement in the previous year.

Transformations are needed to accommodate competing demand for rural labour from other parts of the rural economy besides agriculture. Indicators of these pressures are the rising agricultural wage rates.

Our own assessment for kharif 2013–14, based on rainfall during June–September period and trend variable based regression equations are for an increase in kharif foodgrain production of 133.5 to 138.4 million tonnes, well above the 1st AE.

Transformations are needed to accommodate competing demand for rural labour from other parts of the rural economy besides agriculture. Indicators of these pressures are the rising agricultural wage rates. One driver of the wage rates is the consumer price inflation. The Index of CPI for agricultural labour increased by more than 12 per cent during April–September 2013 over the same period in the previous year. However, the economy is also witnessing rising fuel prices, whether it is electricity or diesel. During April–September 2013 the WPI for fuel, power and lubricants group of items increased by over 9 per cent, yoy basis. These pressures have conflicting impact on labour use in agriculture, one pushing for mechanisation and the other slowing that down. There is also the expanding non-farm sector in rural areas requiring labour. The MSPs for most kharif crops increased by less than 10 per cent in 2013–14 indicating the need to use both energy and labour much more efficiently in agriculture than before.

Other production conditions

As per the crop weather watch reports of the ministry of agriculture (<http://agricoop.nic.in/ncfcweather/>) incidence of pests and diseases has been reported to be below the economic threshold level for the major crops even upto October first week of the current year.

1.5 Kharif Output

The favourable rainfall in the current monsoon period suggests improved production performance in 2013–14 kharif season as compared to the 2012–13 kharif production, especially given the less than favourable monsoon in 2012. The first advance estimates of production provided by the Ministry of Agriculture place kharif foodgrain production at 129.3 million tonnes, 1.1 million tonnes higher than the 4th AE for 2012–13, with all the increase coming from maize.

Our own assessment for kharif 2013–14, based on rainfall during June–September period and trend variable based regression equations are for an increase in kharif foodgrain production of 133.5 to 138.4 million tonnes, well above the 1st AE. While the impact of cyclone Phailin and subsequent floods in parts of Odisha, AP, Bihar and West Bengal may have a negative effect on kharif production. In the case of groundnut and soybean, the 1st AE are within our range estimates. In the case of sugarcane, our revised estimates of production for 2013–14 are 349.2 to 356 million tonnes, as compared to the 1st AE of 341.8 million tonnes.

Table I.3: Output Forecast for Major Food Commodities (million tonnes)

Crop	Kharif 2012-13		Kharif 2013-14	
	Fourth Advance Estimates	1st Advance Estimates	Projections in June Q_AOR	Revised Projections
Rice	92.8	92.3	94.2-95.1	94.3-97.3
Maize	16.0	17.8	16.6-16.8	17.3-17.7
Bajra	8.7	8.7	9.0-9.7	11.2-11.4
Jowar	2.8	2.6	2.6-2.7	2.8-3.0
Other coarse grains	2.0	1.9	2.2-3.8	2.3
Total coarse grains	29.5	31.0	32.0	33.2-34.4
Pulses	5.9	6.0	6.0-6.1	6.1-6.7
Total Kharif foodgrain	128.2	129.3	130.6-135.2	133.5-138.4
Groundnut	3.1	5.6	3.5-5.0	5.5-5.9
Soybean	14.7	15.7	14.1-14.9	14.9-16.4
Annual production				
Sugarcane	339.0	341.8	339.8-347.0	347.8-353.0
Potato*	44.7	42.5	44.0	46.2
Onion*	16.3	16.8	18.0	18.1
Banana*	24.9	30.3	31.4	33.8
Milk**	132.4	-	137.7-138.0	138.1-138.4

Note:

1. The 2013-14 Kharif production has been derived based on trend growth rate and the monsoon rainfall deviation from the LPA and dummy variables to reflect sudden changes in the pattern of data.
2. Estimates of production for potato, onion and banana in 2012-13 are from National Horticulture Board. Estimates of production of milk in 2012-13 are from the Department of Dairying and Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture.
3. * = Assessment based on rainfall and trend growth. Only one set of equations were used to estimate production in the case of potato, onion and banana.
4. **= In the case of milk average growth rate in production in years of rainfall within 5 per cent of normal was used for projection of output in 2013-14. Upper bound on growth is placed at 4.5 per cent.

I.6 Price Environment

After the sharp increase in MSP for kharif crops in 2012-13, the support prices for kharif crops in 2013-14 were marginally higher over the previous year for most crops. Only in the case of maize, soybean and sugarcane, prices increased at 10 per cent or more from the previous year. The setting was one of stability in prices. The international prices were also subdued. For rice, wheat, maize, soybean, rapeseed/mustard oil, palm oil and sugar, international prices (US\$ value) have seen decline in the period July-September 2013, on year on year basis. Only in the case of groundnut oil, prices have increased sharply in the same period. For the food sector as a whole, the FAO Food Price Index has shown consistently declining prices relative to the previous year during the period July-September 2013. The decline is sharper in the case of cereal prices as compared to the overall index. FAO's Dairy price index has shown a sharp increase during this period of July-September 2013 relative to the same period of previous year.

After the sharp increase in MSP for kharif crops in 2012-13, the support prices for kharif crops in 2013-14 were marginally higher over the previous year for most crops.

The trends in input prices indicate the upward pressures in the case of energy. The generally low rate of increase in the WPI for manufactured products and higher increase in the WPI for primary food articles suggests improved terms of trade for food production.

Table I.4: Recent Trends in Domestic (WPI) and International Prices (US\$ based): % YoY

Item	Domestic			International		
	Jul-13	Aug-13	Sep-13	Jul-13	Aug-13	Sep-13
Cereals	17.71	14.35	13.05			
Rice	21.15	20.13	18.76	-6.93	-13.56	-20.41
Wheat	13.64	7.60	5.90	-11.86	-12.57	-12.99
Jowar	6.46	1.78	2.68			
Bajra	17.08	7.09	6.71			
Maize	15.03	11.33	10.98	-16.22	-29.29	-35.33
Pulses	-7.43	-14.40	-13.42			
Gram	-19.81	-26.97	-25.53			
Tur	5.08	-2.92	-2.77			
Groundnut seed	-0.30	-8.86	-14.07			
Rapeseed & Mustard seed	0.43	-9.42	-11.96			
Vegetables	46.85	77.81	89.37			
Potato	-6.13	-15.13	-13.10			
Onion	146.43	244.62	322.94			
Fruits	-4.80	8.17	13.54			
Banana	6.46	14.14	29.46	-4.29	-1.81	-2.86
Groundnut oil	-7.60	-9.83	-6.61	25.60	15.73	12.26
R & M oil	-1.29	-3.55	-2.80	-17.04	-18.86	-22.31
Palm oil	-4.14	-3.99	-0.47	-23.38	-22.33	-17.48
Edible oils	-2.23	-3.86	-2.58			
Sugar	2.20	-4.20	-7.49	-28.72	-25.92	-16.23
Grain mill products	12.11	10.39	7.48			
Milk	3.02	5.63	5.77			
Soybean	-5.56	-20.94	-12.01	-10.03	-20.05	-18.20
Food articles	12.29	18.18	18.40			
Food products	4.29	1.70	1.61			
Food Price Index*	9.48	12.63	12.56	-2.60	-4.36	-6.84

Note: * weighted average of WPI for food articles and food products based on WPI weights for the two groups. In the case of international prices, the figures are for FAO Food Price Index.

For Indian exporters, exchange rate adjustment that was seen in the current year has helped partially offset the drop in international commodity prices.

The trends in input prices indicate the upward pressures in the case of energy. The generally low rate of increase in the WPI for manufactured products and higher increase in the WPI for primary food articles suggests improved terms of trade for food production. However, the agricultural wage rates, implied by the rise in CPI for agricultural labour may offset some of these gains.

Table I.5: Trends in the Prices of Inputs: % YoY

Item	2011-12	2012-13	2013-14			
			April-June	Jul	Aug	September
Input prices (WPI)						
Fertilizers	13.5	12.4	6.36	2.16	1.95	1.00
Diesel	8.5	11.6	21.49	26.34	27.64	20.13
Pesticides	1.1	5.5	3.57	2.66	1.74	2.62
Manuf. Prod	7.3	5.4	3.18	2.60	1.90	2.03
Electricity (for agriculture)	5.1	21.8	26.66	11.12	11.21	11.12
WPI All Commodities	8.9	7.4	4.78	5.85	6.10	6.46
Other indicators						
CPI Agricultural labour	8.2	10.0	12.62	12.8	13.2	12.8
Exchange rate (Rs/ US\$)	5.1	13.4	3.6	7.8	13.3	17.3

1.6.1 Price projections

The current trends in prices of the major food commodities have been extended for the next four months based on two types of models. The projections are useful benchmarks on the likely patterns of prices in the short-term. We may note that the projections provided in the June 2013 QAOR were reasonably close to the actual patterns except in the case of onion.

The projections for onion for September 2013 were 64 per cent increase over September 2012 in the case of WPI and 89 per cent increase in the case of wholesale price in Delhi. The actuals were in excess of 322 per cent in the case of WPI. The previous trends upto April 2013 were not capturing the sharp increase that was experienced from June 2013 onwards. The projections provided for the next four months starting from October 2013 capture the recent trends and the onion prices are now expected to increase upto December and then show a decline in January 2014 as the seasonal pattern begins to take effect.

Table I.6: Projections of WPI Based on ARIMA models: % Change Year on Year

Commodity	% Change YOY					% Change MOM				
	Sep-13*	Oct-13	Nov-13	Dec-13	Jan-14	Sep-13*	Oct-13	Nov-13	Dec-13	Jan-14
Rice	18.76	15.33	15.67	14.63	14.66	1.09	0.89	0.05	-0.66	0.08
Wheat	5.90	6.37	6.96	7.53	8.16	2.34	0.24	2.85	1.42	1.52
Jowar	2.68	0.84	4.65	5.44	7.45	0.21	-1.92	-0.11	3.66	2.61
Bajra	6.71	11.83	7.50	1.97	1.41	-0.32	-1.69	1.05	2.98	1.15
Maize	10.98	6.47	4.70	2.65	1.34	1.68	-4.84	-0.94	1.94	1.65
Pulses	-13.42	-10.84	-9.08	-5.96	-4.95	1.53	1.28	1.62	0.15	-0.24
Gram	-25.53	-24.06	-21.68	-17.96	-15.34	1.77	0.30	3.74	-0.15	0.35
Tur	-2.77	0.66	2.57	5.97	6.73	0.76	0.56	-0.03	-0.64	-0.04
Edible oils	-2.58	0.10	0.03	-0.05	-0.29	1.66	0.85	0.20	0.66	-0.18
Groundnut	-14.07	-16.06	-22.05	-22.27	-25.86	-4.31	-2.99	-2.67	0.03	2.44
Soyabean	-12.01	8.89	0.91	-0.22	4.19	4.17	-3.06	-1.74	0.11	3.03
Onion	322.94	309.64	252.71	157.93	101.05	2.44	0.27	0.92	0.20	-0.16
Potato	-13.10	-3.34	-6.77	2.91	-26.00	22.66	4.94	6.42	-12.40	-14.84
Food sector	12.47	13.60	13.44	13.37	12.32	-5.97	5.88	-1.68	-17.92	-29.70
Food articles	18.40	19.31	18.88	18.44	16.25	0.98	0.76	0.17	-0.83	0.11
Food products	1.61	2.28	2.07	2.05	2.51	0.80	0.59	0.15	-1.58	-0.22

Note: * September 2013 figures are actual data. Projections for subsequent months are based on estimated ARIMA models using the monthly data on WPI upto September 2013.

The projections provided for the next four months starting from October 2013 capture the recent trends and the onion prices are now expected to increase upto December and then show a decline in January 2014 as the seasonal pattern begins to take effect.

The price scenario for the food sector as a whole reflects the trends in rice and onion prices as the projected price increase in these commodities, year on year basis, is above the overall increase in food articles and food products.

Among the other commodities, relatively higher rate of increase in WPI for rice is expected to continue in the short-term. Although prices are expected to be stable, in comparison to 2012, prices in November 2013 to January 2014 are projected to show about 15 per cent increase. The impact of higher production of present kharif season will depend on level of procurement of rice by the government agencies—the larger the government procurement the higher the open market price unless there is a reduction demand in the open market.

The price scenario for the food sector as a whole reflects the trends in rice and onion prices as the projected price increase in these commodities, yoy basis, is above the overall increase in food articles and food products. In the case of the other major food commodities, the projected price increase is lower than the overall increase across all commodities.

An analysis of price scenario for the next 3-4 months using the wholesale price for Delhi shows similar pattern as the WPI for a number of commodities discussed above. However, the trends in the case of wholesale price of rice and onion in Delhi are more moderate than in the case of WPI. In the case of edible oils, prices in the coming 3-4 months are expected to increase faster in Delhi as compared to the WPI projections at the national level.

Table I.7: Projections of Wholesale Prices in Delhi Based on Harmonic Analysis: % Change Year on Year

Month/ Year	% Year on Year					% Month over Month				
	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14
Wheat	0	4.6	4.5	4.4	4.4	0.5	1.9	2.1	2.0	1.4
Rice	7.7	6.1	6.0	6.0	5.9	-0.8	1.1	1.2	1.1	0.8
Tur dal	-9.2	-8.9	-9.0	-9.1	-9.3	0.2	0.5	-0.8	-1.8	-2.3
Chana dal	-31.4	-21.4	-20.9	-20.6	-20.6	0.9	3.6	2.9	1.7	0.4
Urd dal	-1.7	4.6	4.72	4.7	6.6	1.3	2.7	0.4	-2.4	-2.4
Masur dal	+9.1	-12.1	-14.0	-15.8	-17.2	0.7	-2.4	-3.6	-4.4	-4.4
Potato	+5.7	-17.2	-21.9	-27.8	-33.7	9.4	-11.7	-18.2	-23.0	-23.3
Onion	+502.1	104.8	91.8	84.5	80.5	33.5	5.2	1.3	-2.7	-6.2
Sugar	-13.5	0.1	-2.9	-5.8	-8.4	0.6	1.4	0.6	-0.6	-1.8
Soy oil	-2.8	6.1	8.8	11.4	14.1	1.8	2.0	2.4	2.7	2.7
Palm oil	-4.1	12.5	15.9	19.2	22.2	3.9	2.0	2.2	2.3	2.5
Milk	+7.4	14.1	13.9	13.7	13.6	0.8	1.0	1.0	1.0	1.0

Note: *= September 2013 figures are actual. For subsequent months growth rates are projected based on harmonic models using monthly data.

In the case of rice, the yoy increase in the wholesale price declined sharply in September 2013 in Delhi and the projections are picking up this decline and the seasonal decline in prices following kharif. In the case of edible oils the increase in the prices is influenced by the seasonal pattern. While the two approaches provide a wide range of results in the case of rice and edible oils, the WPI based projections are more reflective of the overall trends in the short-term. The results of the present analysis point to the importance of fresh supplies from kharif harvest in moderating the price situation in the short-term.

I.7 The Supply-Demand Balances

We have updated the assessment of emerging supply-demand balances for the major commodities for 2013-14, which was first provided in the June 2013 quarterly outlook report. We have provided an assessment of production of the major food commodities for 2013-14 as a whole in order to arrive at the balance sheet. The updated food supply-demand situation is summarised in Table I.8. In all the commodities considered in the

analysis, with the exception of wheat and onion, the closing stocks for 2013–14 are higher than the beginning stocks for the year implying that the supplies are likely to be more than adequate to meet the demand during the year. In the case of wheat there are adequate stocks with the government and drawing down of stocks suggested in this analysis would not have an impact on prices. In the case of onion, there is a need to build up and manage stocks to achieve more stable supplies of this commonly consumed food commodity. Price scenario for the current year is expected to be more moderate than seen in the previous year.

Table I.8: Food Balance Sheet (thousand tonnes) for 2013–14

Item	Rice	Wheat	Maize	Pulses	Edible oils	Sugar	Onion	Potato
A. Supply side								
Beginning stocks	23,000	24,200	550	1800	1,621	7,000	757	1,400
Production	109,000	92,460	24,200	18,800	9,000	25,200	18,230	46,200
Imports	0	0	5	3,800	10,000	1500	10	0
Total supply	132,000	116,660	24,755	24,400	20,621	33,700	18,897	47,900
B. Demand side								
Domestic consumption	99,000	93,660	20,955	22,236	18,878	24150	17,240	45,200
Exports	9,000	5,000	3,000	200	100	2000	1,000	250
Utilisation	108,000	98,660	23,955	22,436	18,978	26,150	18,240	45,450
C. Closing stocks								
	24,000	18,000	800	1,964	1,643	7,550	657	2,450

Note: In the case of pulses and edible oils small quantities of exports are made but we have ignored them in this summary sheet. The year 2013–14 refers to the marketing year for each commodity. In the case of pulses, we have assumed a beginning stock of 1.8 million tonnes although in the calculations provided in the pulses section of Part IV this assumption has not been made. In the case of potato and onion also some initial stocks are assumed for calculating the supply-demand balances in this table.

In all the commodities considered in the analysis, with the exception of wheat and onion, the closing stocks for 2013–14 are higher than the beginning stocks for the year implying that the supplies are likely to be more than adequate to meet the demand during the year.



PART II

Overview of the Global Food Outlook

II.1 Economic Growth and Trade Subdued

The International Monetary Fund (IMF) in its October 2013 World Economic Outlook² has further lowered 2013 global economic growth to 2.9 per cent from its earlier 3 per cent, driven to a large extent by appreciably weaker domestic demand and slower growth in several key emerging market economies. Growth continued to disappoint in major emerging market economies, reflecting to varying degrees, infrastructure bottlenecks and other capacity constraints, slower external demand growth, lower commodity prices, financial stability concerns, and in some cases, weaker policy support. Looking ahead, global activity is expected to strengthen moderately forecast at 3.6 per cent in 2014 but the risks to the forecast remain to the downside.

World trade reflects the weak momentum in global activity. According to a recent WTO report³, world trade growth in 2013 and 2014 is likely to be slower than previously forecast. The new estimate pegs 2013 growth at 2.5 per cent, down from the 3.3 per cent forecast in April, very close to the 2.3 per cent growth in 2012. The 2014 growth has been scaled down to 4.5 per cent from the earlier 5 per cent. The revisions reflect fears of an economic slowdown in some emerging economies, weaker import demand from developing countries than expected, and the effects of the prolonged eurozone crisis. WTO Director-General also cited trade restrictions specifically among the reasons for the revised figures. However, there remain uncertainties with some firm growth trends in China but fluctuating growth indicators in the US economy.

According to FAO/OECD medium-term projections, world agricultural trade is expected to grow in the medium-term at a slower rate than the recent decade. Emerging economies will capture much of the trade growth, accounting for the majority of exports of coarse grains, rice, oilseeds, vegetable oil, sugar, beef, poultry and fish. The OECD area's share of trade will continue to decline while remaining the major exporter of wheat, cotton, pig and sheep meat and most dairy products.

II.2 Global Agricultural Outlook

II.2.1 Agricultural production up

Since our last June 2013 Outlook report, there have been further steady upward revisions in 2013–14 global production of most crops by most agencies (Table II.1).

- The FAO has revised upward its 2013–14 wheat production upward to 709.8 million tonnes, the USDA to 708.94 million tonnes and IGC to 693.0 million tonnes, a record high, from the 2012–13 production of 659.1 million tonnes, 655.2 million tonnes and 655 million tonnes, respectively.

2. <http://www.imf.org/external/pubs/ft/weo/2013/update/02/pdf/0713.pdf>

3. http://www.wto.org/english/news_e/pres13_e/pr694_e.htm

Growth continued to disappoint in major emerging market economies, reflecting, to varying degrees, infrastructure bottlenecks and other capacity constraints, slower external demand growth, lower commodity prices, financial stability concerns, and, in some cases, weaker policy support.

Since our last June 2013 Outlook report, there have been further steady upward revisions in 2013–14 global production of most crops by most agencies.

Wheat production is forecast to increase in most of the major growing countries particularly the Black Sea region (the Russian Federation, Ukraine and Kazakhstan), the European region, Canada and Australia.

Global rice production for 2013–14 is forecast at a record as a result of expanded area.

- World rice production in 2013–14 was revised marginally downward to 497.2 million tonnes by FAO, 476.84 million tonnes by USDA, and 476 million tonnes by IGC from its June estimate, but still about 5–6 million tonnes higher than the revised 2012–13 estimates.
- 2013–14 world coarse grain production has also been revised upward, more than 100 million tonnes above the 2012–13 level, to 1285 million tonnes by FAO, 1,246 million tonnes by USDA, and 1,237 million tonnes by IGC. Most of the increase was in maize.
- Global oilseed production forecast was revised marginally downward by the USDA from its earlier forecast to 490.8 million tonnes, but still more than 12 million tonnes increase over the 2012–13 estimate. World 2013–14 edible oil production has been revised marginally upward to 167.3 million tonnes but 7.0 million tonnes above the 2012–13 production, with most of the increase in palm oil, soybean oil, and olive oil.

Wheat production is forecast to increase in most of the major growing countries particularly the Black Sea region (the Russian Federation, Ukraine and Kazakhstan), the European region, Canada and Australia. The notable exception is the United States where production is forecast to decline by 7 per cent to around 58 million tonnes, due mainly to the adverse effect of drought conditions.

Global rice production for 2013–14 is forecast at a record as a result of expanded area. Burma, Cambodia, China, India, Nigeria, Pakistan, and Thailand account for most of the year-to-year area increase. Much of this area expansion is driven by higher government support prices. The average global yield is forecast slightly below the 2012–13 record yield partly due to area shifts across countries as well as adverse weather in China, the world's largest rice producing country.

A sharp increase in global production of coarse grains is forecast largely on account of a strong rebound in maize output, the bulk of which would originate from the United States, where maize production is forecast to reach 352 million tonnes this year, some 28 per cent higher than the 2012 drought-reduced level. Maize production in other major producing countries such as China, European Union, Ukraine and India is forecast to increase to record levels, whereas in Brazil and Argentina production is likely to decline from the 2012–13 record levels due to an expected fall in the area in response to prevailing lower world corn prices.

Table II.1: Global Production Forecasts for Major Food Commodities (million tonnes)

	FAO	USDA	IGC	ABARES
Wheat				
2011–12	702.3	697.2	695.0	695.0
2012–13	659.7	655.2	655.0	653.0
2013–14	709.8 (702.0)	708.9 (695.9)	693.0 (682.0)	695.0 (688.0)
Rice				
2011–12	485.6	465.8	465.0	NA
2012–13	490.9	469.0	469.0	NA
2013–14	497.2 (499.1)	476.8 (479.2)	476.0 (472.0)	NA
Maize				
2011–12	886.2	884.4	877.0	883.0
2012–13	875.2	860.1	863.0	863.0
2013–14	983.0 (960.0)	956.7 (962.6)	943.0 (945.0)	957.0 (944.0)
All coarse grains				
2011–12	1167.8	1150.6	1156.0	1155.0
2012–13	1162.7	1127.8	1136.0	1134.0
2013–14	1285.3 (1266.0)	1245.5 (1250.0)	1237.0 (1234.0)	1247.0 (1223.0)
Total oilseeds				
2011–12	453.6	444.6	NA	445.0
2012–13	477.5	472.6	NA	469.0
2013–14	NA	495.1 (490.8)	NA	487.0 (478.0)
Total veg oils				
2011–12	183.3	157.3	NA	152.0
2012–13	188.7	160.4	NA	157.0
2013–14	NA	167.3 (166.1)	NA	164.0 (161.0)
Sugar (Raw equivalent)				
2011–12	175.2	161.9	NA	174.3
2012–13	180.0	172.0	NA	182.9
2013–14	NA	174.9 (174.9)	NA	181.1 (181.9)
Milk				
2011–12	767.4	529.7	NA	NA
2012–13	784.4	544.1	NA	NA
2013–14	NA	553.7 (556.1)	NA	NA

Note: Figures in parentheses are the estimates available in June 2013.

World oilseeds production in 2013–14 is forecast to rise to a record on account of record production of soybeans, canola and sunflower seed. The record soybean production forecast is underpinned by an expected increase in production in the US and the prospect of record production in Latin America. In the United States, despite continuing weather related problem in major producing areas, soybean production is forecast to rise by around 4 per cent in 2013–14 to 85.7 million tonnes. This is due to a forecast recovery in the average yield following an improvement in weather conditions compared to last year. Soybean production in Brazil and Argentina is forecast to rise to record levels assuming favourable seasonal conditions. The expected production increases reflect a rise in the area planted in both countries, largely driven by strengthening soybean prices combined with higher yields. The price ratio between soybeans and corn is now unusually high (soybean

World oilseeds production in 2013–14 is forecast to rise to a record on account of record production of soybeans, canola and sunflower seed. The record soybean production forecast is underpinned by an expected increase in production in the US and the prospect of record production in Latin America.

Assuming average seasonal weather conditions in the remainder of 2013–14, milk production in the major dairy producing and exporting countries is expected to increase in 2013–14 as a result of higher farm gate milk prices and lower feed grain prices.

price approaching three times the price of corn) and beckons farmers to grow more soybeans.

World vegetable oil production in 2013–14 is forecast at a record 167 million tonnes, up almost 7 million tonnes from the 2012–13 production, with most of the increase in palm oil (in Indonesia), soybean oil (China, Argentina and Brazil), sunflower seed oil (Ukraine, European Union, and Argentina), and olive oil (European Union).

Pulse production in major exporting countries is forecast to register an increase in 2013–14. Higher production in the US and Australia is expected to offset a decline in Canadian dry pea production in 2013–14 marginally to 3.3 million tonnes due to smaller harvested area. Assuming normal yields and abandonment, US dry pea production in 2013–14 is forecast to increase by 21 per cent to 700,000 tonnes due to an increase in planted area. Australian field pea production is forecast at 344,000 tonnes compared to 320,000 tonnes the previous year.

Canadian lentil production for 2013–14 is estimated to rise by 2 per cent to 1.6 million tonnes. Assuming normal yields, 2013–14 US lentil production is forecast at 200,000 tonnes, down 26 per cent from 2012–13 due to lower planted area. Australian lentil production is forecast at around 222,000 tonnes against 184,000 tonnes the previous year.

Australian chickpea production is forecast to decline by about 15 per cent to around 640,000 tonnes while Kabuli chickpea production is forecast at 92,000 tonnes, 18 per cent higher from the previous year.

ABARES forecasts 2013–14 world sugar production at 181.1 million tonnes, 1.8 million tonnes less than the record harvest of 2012–13. Higher sugar production in Brazil and Thailand is expected to be more than offset by lower sugar production in Europe, Mexico, India, and the United States.

Assuming average seasonal weather conditions in the remainder of 2013–14, milk production in the major dairy producing and exporting countries is expected to increase in 2013–14 as a result of higher farm gate milk prices and lower feed grain prices. Milk production in New Zealand is forecast to increase by around 3 per cent in 2013–14 (June to May) following a 3 per cent fall in production in 2012–13 whereas Australian milk production is forecast to increase by 2 per cent. Milk production in EU and the United States is forecast to increase by 1 per cent.

II.2.2 Consumption

Most international agencies forecast wheat consumption in 2013–14 to rise, ranging 2 to 3.5 per cent, with forecasts ranging from 687 million tonnes by IGC to 706 million tonnes by USDA. An expected increase in the availability of low quality wheat is forecast to result in a significant increase in the feed use in countries like China where there is a large and growing livestock sector. Although with low and declining maize prices, some grain importers are expected to reduce wheat imports in favour of corn for feed use, feed use of wheat is expected to remain high in countries that have a tradition of wheat feeding, such as the EU, Russia, and black sea region, where production is expected to be much higher this year.

Global 2013–14 rice use is projected at a record 475.0 million tonnes by USDA and 473 million tonnes by IGC, up about 1 per cent from a year earlier. India and China account for most of the projected increase in global consumption in 2013–14.

World coarse grains consumption is forecast to rise by around 6 per cent in 2013–14 to around 1.2 billion tonnes, driven by an expected increase in the feed use of coarse grains.

Total corn consumption is forecast to rise by 6 to 7 per cent to a record level of around 930 million tonnes, while total barley consumption is forecast to rise by 6 per cent to 140 million tonnes. Total feed use of coarse grains is forecast to rise by 8 per cent in 2013–14 to 718 million tonnes, which reflects the combined effects of forecast lower coarse grains prices and an expected expansion of livestock industries. According to ABARES, production of ethanol from corn in the United States is forecast to increase in 2013–14, with producers expected to respond to improved producer margins resulting from forecast fall in corn prices and strong energy prices. Additionally, US demand for ethanol is forecast to remain strong in 2013–14 as the volume of renewable fuels required to be blended into conventional fuels increase.

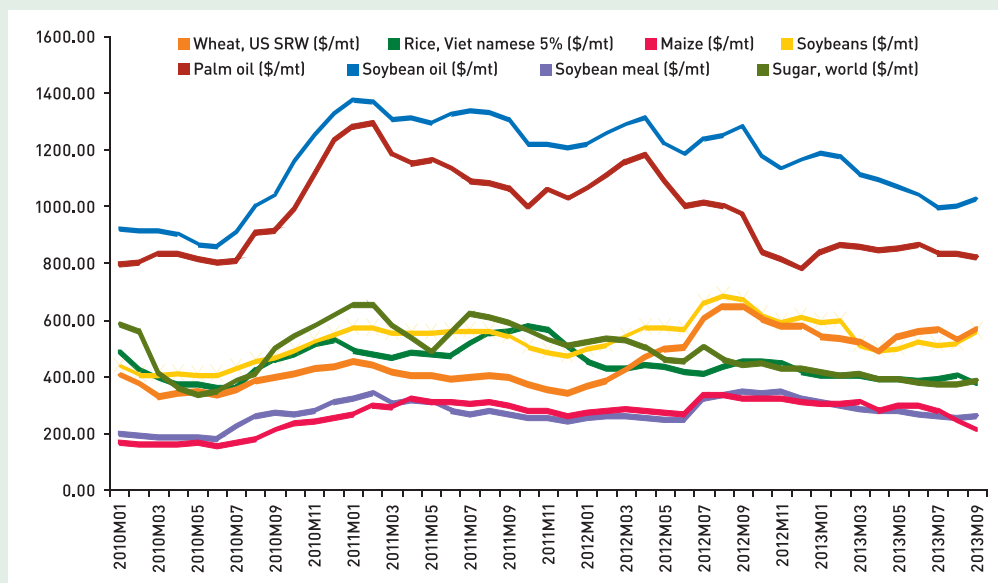
Reflecting higher oilseed production and crush resulting in higher production and lower prices, world consumption of vegetable oils is forecast to increase by about 4 to 5 per cent in 2013–14 to around 164 million tonnes. This reflects increasing food consumption of vegetable oils, particularly in China and India and higher Industrial use of palm oil and soybean oil.

Despite a likely marginal decline in production, ABARES forecasts world sugar consumption to increase by 2.1 per cent in 2013–14 to 176.3 million tonnes, reflecting combined effects of lower sugar prices and assumed growth in world population and incomes, particularly in China, India and Brazil. Growth in world sugar consumption is facing competition from increasing use of high intensity sweeteners (both artificial and natural).

II.2.3 Prices down

World commodity prices in general continued to weaken reflecting higher production although prices of soybean, oil, meal and wheat and sugar strengthened marginally in September (Figure II.1). The indicative global prices in September 2013 with corresponding prices a year ago in \$ per metric tonne are: wheat – 259.8 (343.6), rice – 370.5 (455.2), maize – 207.5 (320.9); soybeans – 557 (670); soybean oil – 1026 (1283); soybean meal – 566 (646); palm oil – 820 (967); and sugar – 383.6 (440.7).

Figure II.1: Global Price Trend of Major Commodities



Source: World Bank.

Reflecting higher oilseed production and crush resulting in higher production and lower prices, world consumption of vegetable oils is forecast to increase by about 4 to 5 per cent in 2013–14 to around 164 million tonnes.

World commodity prices in general continued to weaken reflecting higher production although prices of soybean, oil, meal and wheat and sugar strengthened marginally in September.

The FAO Food Price Index averaged 199.1 points in September 2013, 2.3 points (1 per cent) below its August value and down 11 points (or 5.4 per cent) since the beginning of the year.

Global prices of dry peas, lentils, and chick peas are expected to remain unchanged or fall marginally in 2013–14 due to larger supplies and carryover stocks in major exporting countries such as Canada.

The FAO Food Price Index averaged 199.1 points in September 2013, 2.3 points (1 per cent) below its August value and down 11 points (or 5.4 per cent) since the beginning of the year. The decline in September marked the fifth consecutive decrease in the value of the index and was driven by a sharp fall in the international prices of cereals, whereas prices of all other components of the index, namely dairy, oils, meat and sugar, rose slightly. An expected production rebound in most commodities in 2013–14 implies a weakening in prices in coming months unless growing season weather conditions turn hostile.

Wheat market is expected to ease moderately in 2013–14 and prices to dip from last year's record levels but still at a historically high level reflecting a strong increase in global wheat production and lower maize prices reducing demand for wheat in livestock feed. However, with supplies of quality wheat constrained, high protein wheat will continue to outperform and the wheat-to-corn ratio is likely to remain elevated.

The world coarse grains indicator price (US corn, fob Gulf) is forecast to fall by 25 per cent in 2013–14 over previous year. This mostly reflects a forecast of large increase in US corn production, leading to a recovery in world coarse grains supplies. U.S. corn futures tumbled following the upward revision in U.S. maize production by USDA in early September despite a late-summer stretch of hot, dry weather in key crop areas. Decision on ethanol mandate will affect future growth prospects for the US ethanol industry, and corn demand.

Soybean prices have rallied with prospects for a tighter balance between U.S. supplies and demand. In September, USDA raised its forecast of the U.S. season-average soybean farm price for 2013–14 by 10 per cent from the August level. USDA forecast of the 2013–14 average soybean meal price was also raised by 16 to 18 per cent. In contrast, soybean oil prices are on a lower trajectory despite declining U.S. stocks. Ample global stocks of vegetable oil, mostly palm oil, are also keeping the pressure on soybean oil prices.

Industry sources are mostly bearish on crude palm oil prices for 2013–14, citing increasing production adding to growing stockpiles and recovery in production of competing vegetable oils notwithstanding increasing demand from the bio fuel industry. Stockpiles will begin to increase from September and should keep expanding at least until January because of the cyclical high production in the second half of the year.

Global prices of dry peas, lentils, and chick peas are expected to remain unchanged or fall marginally in 2013–14 due to larger supplies and carryover stocks in major exporting countries such as Canada. The average price of Canadian dry peas is forecast to remain similar to or slightly lower than 2012–13 despite lower production as Canada continues to reduce its carryover stocks.

Sugar prices are expected to weaken reflecting the expectation that world sugar production will exceed consumption for the fourth consecutive year, lifting world sugar stocks-to-use ratio to a level last reached in 2007–08. However, London Future Price for sugar points to strengthening of sugar prices in coming months influenced by consumption growth.

World dairy product prices rose in March and April 2013 largely in response to lower milk production in key dairy exporting countries and continuing firm import demand. Prices eased in the period May to July 2013 but remained well above prices prevailing in mid-2012. Despite forecast higher global milk production, world dairy product prices are forecast to average slightly higher in 2013–14 driven by continuing firm growth in import demand, particularly from the developing countries of Asia.

CBOT future price quotes (Table II.2) support the price outlook scenario for various commodities discussed above. The early October CBOT price quotes show a further

weakening of prices for soybeans, fluctuations in wheat but strengthening of prices for wheat, maize, soy oil and sugar upto March 2014.

Table II.2: CBOT Futures Price Quotes US\$/MT

Commodity/ date of Quote	\$ per Metric Tonne									
Soybean CBOT	Jul '13	Aug '13	Sep '13	Nov '13	Jan '14	Mar '14	May '14	Jul '14	Aug '14	
5-Jul-13	583.49	526.17	468.94	451.30	453.33	453.97	454.15	456.36	452.41	
2-Aug-13		489.06	445.61	434.13	436.24	437.25	437.43	439.00	435.69	
6-Sep-13			528.01	502.56	501.64	493.47	481.62	479.23	470.32	
4-Oct-13				475.83	475.83	470.04	462.14	460.49	456.54	
Wheat CBOT	Jul '13	Sep '13	Dec '13	Mar '14	May '14	Jul '14	Sep '14	Dec '14	Mar '15	
5-Jul-13	241.04	242.51	246.37	251.05	252.98	254.08				
2-Aug-13		242.69	247.29	250.78	252.61	250.59	252.52			
6-Sep-13		233.32	238.01	242.60	245.63	243.52	246.00			
4-Oct-13			252.43	255.83	257.85	254.91	256.93	260.79		
Maize CBOT	Jul '13	Sep '13	Dec '13	Mar '14	May '14	Jul '14	Sep '14	Dec '14	Mar '15	
5-Jul-13	269.57	206.98	193.39	198.22	201.27	204.12	204.61	204.81	207.96	
2-Aug-13		187.39	182.57	187.59	190.64	193.00	193.79	194.67	198.41	
6-Sep-13		193.49	184.34	189.36	192.71	195.07	196.25	198.32	201.66	
4-Oct-13			174.50	179.52	182.86	185.72	187.98	190.93	194.97	
Soya oil CBOT	Jul '13	Aug '13	Sep '13	Oct '13	Dec '13	Jan '14	Mar '14	May '14	Jul '14	
5-Jul-13	1041.23	1039.25	1031.53	1021.61	1015.00	1014.78	1018.08	1021.39	1024.26	
2-Aug-13		934.31	936.73	939.16	944.01	946.88	951.95	956.58	961.21	
6-Sep-13			955.91	957.46	963.85	968.26	975.09	981.27	987.44	
4-Oct-13				881.62	887.13	894.19	902.12	908.74	914.69	
Sugar LCE	Aug '13	Oct '13	Dec '13	Mar '14	May '14	Aug '14	Oct '14	Dec '14	Mar '15	
5-Jul-13	496.10	472.80	470.40	471.40	474.90					
2-Aug-13		490.00	480.10	478.00	479.30	479.90				
6-Sep-13		492.80	479.50	477.00	478.90	478.20				
4-Oct-13			492.00	493.40	497.10	498.40	501.00			

Source: Moore Research Centre, Inc. (www.mrci.com/ohlc/index.php)

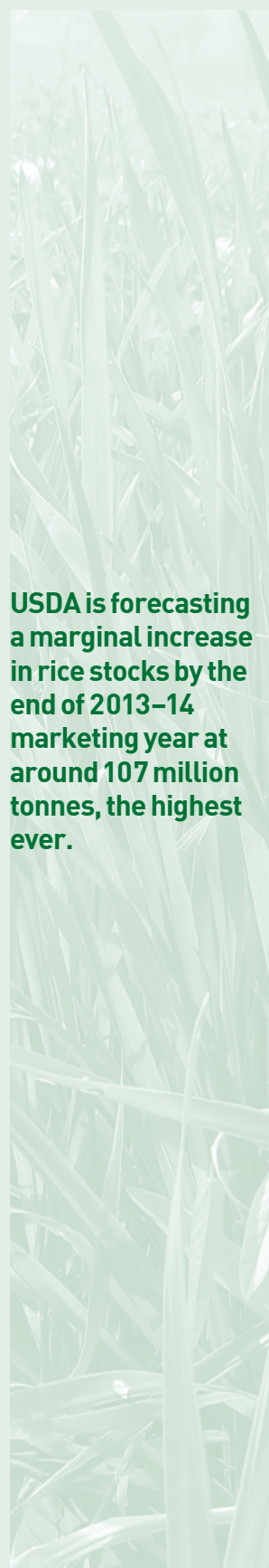
II.2.4 Trade higher

The significant price drop in most commodities in recent months and relatively weak price scenario in coming months may stimulate trade by the need to avoid stock accumulation and higher imports.

In the past two years, global wheat trade was driven by wheat substitution for corn in feed rations. Tight corn supplies and high prices created incentives for feeders to use more wheat. As the Northern Hemisphere corn harvest progresses, less feed-quality wheat will be imported as a result of ample corn supplies and plunging prices. However, import demand for milling-quality wheat is strong. As a result, wheat trade in 2013–14 is forecast to increase by 3 to 4 per cent to around 150 million tonnes. Most of the increase in exports is likely to be from the Black Sea region and the US, whereas increase in imports will be in China and Egypt.

2013 rice trade is projected to be marginally higher at 39.0 million tonnes compared to around 38.0 million tonnes in 2012 mainly due to stronger import demand from China and Indonesia. Judging from the current trend exports are expected to be lower for Vietnam and Thailand but equal or somewhat higher for India with India likely to retain its position as the largest exporter of rice in 2013.

The significant price drop in most commodities in recent months and relatively weak price scenario in coming months may stimulate trade by the need to avoid stock accumulation and higher imports.



USDA is forecasting a marginal increase in rice stocks by the end of 2013–14 marketing year at around 107 million tonnes, the highest ever.

Global coarse grain trade is forecast to increase by around 6 million tonnes to 134 million tonnes in 2013–14, with most of the increase in maize forecast at around 104 million tonnes, an increase of 5 million tonnes. The US maize exports are forecast to rebound to 32.5 million tonnes from the drought impacted exports of 17.5 million tonnes in 2012–13. Exports from Ukraine are also forecast to increase significantly but South American exports are projected to decline reflecting an expected decline in production.

There has been no significant change in the 2013–14 vegetable oil trade forecast from the July forecast, 2 million tonnes more than in 2012–13, with the most of the increase in palm oil and some increase in soybean and sunflower seed oil.

Global pulse trade in 2013–14 is likely to remain more or less unchanged from the 2012–13 level.

II.2.5 Stocks

2013–14 global ending stocks of wheat are forecast to increase marginally, with the USDA forecast at 176 million tonnes, and IGC forecast at 180 million tonnes and FAO at 170 million tonnes. Stocks in the United States and India are expected to drop, whereas for most other countries stocks are expected to grow. Global stocks-to-use-ratio is forecast to decline marginally (Figure II.2).

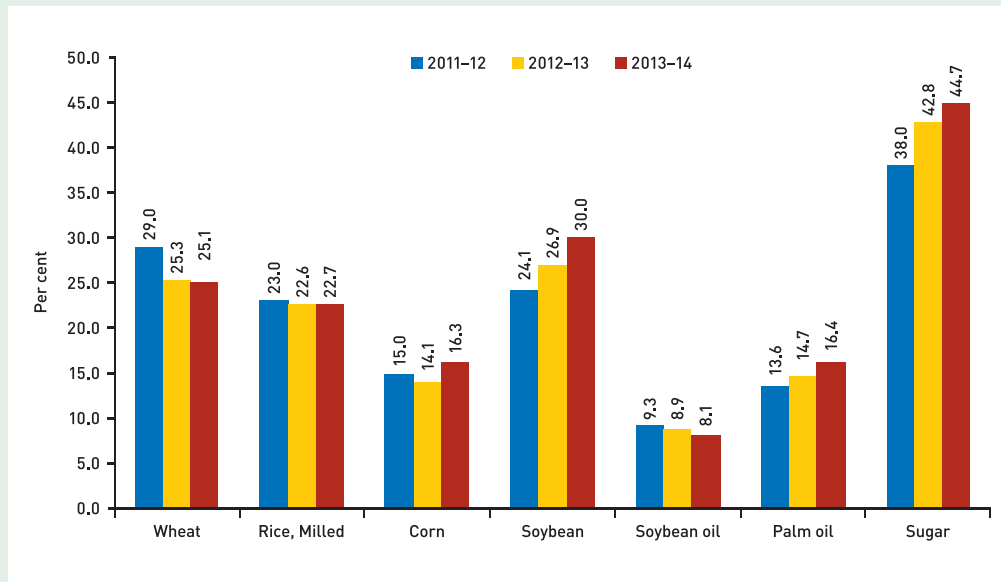
USDA is forecasting a marginal increase in rice stocks by the end of 2013–14 marketing year at around 107 million tonnes, the highest ever. Most of the stocks increase is in Thailand and Vietnam. Stocks-to-use-ratio is placed at 22.7 per cent, a marginal increase over the previous year.

Maize stocks are projected to increase by the end of 2013–14 marketing year to a record of around 151 million tonnes from the previous year's 123 million tonnes. Stocks-to use ratio is also expected to improve significantly.

While soybean oil stocks-to-use ratio is projected to decline, there is a significant improvement in the stocks to use ratio of palm oil.

Sugar ending stocks and stocks-to-use ratio in 2012–13 are projected to improve to one of the highest levels in recent years.

Figure II.2: Stocks-to-use Ratio of Major Agri Commodities



Source: USDA and ABARES (sugar).

II.3 Implications for India

Agricultural trade outlook for India presents a mixed picture. Rice, India's major export item could face increased competition from Vietnam and even from Thailand. The renewal of the government rice mortgage programme for 2013–14 has failed to prevent Thailand rice prices from declining, and average rice prices could drop sharply in November. This is further accentuated by the increasing cost of production for most agricultural commodities in India necessitating higher government support prices leading to higher market prices. Increased imports by Iran and the weakening of Indian rupee against US\$ have provided an opportunity to maintain her exports.

Wheat exports from India are likely to face hurdles from larger availability of lower quality wheat from the Black Sea region and larger supplies of maize making Indian wheat non-competitive. Higher export price for wheat (\$300) set by the government for allocation from government stocks is also a deterring factor. Furthermore, a significant decline in wheat procurement in 2013 could make export allocation conservative, especially in the context of implementation of the National Food Security Act, which would require adequate supply of foodgrain with the government to meet the commitments to provide subsidised grains. Nevertheless, India will have some comparative advantage in supplying wheat to its neighbouring countries such as Bangladesh, which was a major importer of Indian wheat in 2012–13 due to lower transportation costs. Export outlook for Indian maize also appears to be pessimistic due to a significant increase in global exportable surplus of maize.

The strengthening of world soybean meal prices and larger Indian supplies could result in increased soybean meal exports from India.

India's competitiveness in the international sugar market will continue to be tempered by lower production, high domestic prices and increasing sugarcane prices in the context of rising global production and record stocks resulting in declining international prices.

Wheat exports from India are likely to face hurdles from larger availability of lower quality wheat from the Black Sea region and larger supplies of maize making Indian wheat non-competitive.



High domestic price of onion has prompted the government to establish higher minimum export price for onion which could result in lower exports.

On the import side, vegetable oil, India's major agricultural import item, should benefit from declining global prices, particularly for palm oil, which however could be partly offset by the weakening rupee. Imports of pulses also will become costlier in rupee terms due to the depreciation of rupee against dollar.

NOTES

Most recent detailed country by country analysis of the commodity situation and outlook are available in the following reports:

Food and Agriculture Organization of the United Nations

FAO Cereal Supply and Demand Brief – October 2013

www.fao.org/worldfoodsituation/csdb/en/

Monthly Soybean Supply and Demand Roundup – October 2013

www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Oilcrops/Documents/MSSDR/MSSDR_October_13_.pdf

International Commodity Prices

www.fao.org/economic/est/statistical-data/est-cpd/en/

United States Department of Agriculture – Foreign Agricultural Service

Grain: World Markets and Trade, September 2013

Oilseeds: World Market and Trade, September 2013

United States Department of Agriculture – Economic Research Service

Wheat Outlook, September 2013

Rice Outlook, September 2013

Oil Crops Outlook, September 2013

Feed Outlook, September 2013

Agriculture and Agri-Food Canada

Canada – Outlook for Principal Field Crops August 2013

http://www.agr.gc.ca/pol/mad-dam/pubs/fco-ppc/pdf/fco-ppc_2013-08-13_eng.pdf

International Grains Council

Grain Market Report, September 2013

www.igc.int/en/downloads/gmrsummary/gmrsumme.pdf

ABARES

Agricultural Commodities Outlook, September 2013

http://data.daff.gov.au/data/warehouse/agcomd9abcc004/agcomd9abcc004201309/AgCommodities201309_1.1.0.pdf

PART III

Factors Influencing Food Outlook

III.1 Backdrop

The emerging outlook for agricultural sector in the context of the prospects for the overall economy was discussed in Part I of this report. The developments are marked by improved prospects for agricultural sector in the current year and expectations of some moderation on the food inflation front in the immediate short-term as a result of improved output. Finally there is also the international trade scenario which links domestic and international markets presenting opportunities to replenish supplies and also find markets for the produce. In this section, we present a discussion of these selected factors and summarise the policy developments during the quarter July–October 2013.

III.2 Spatial and Temporal Distribution of Rainfall in June–September 2013

Cumulative rainfall over the monsoon period was 6 per cent above normal against the IMD forecast of 2 per cent below normal. However, spatial and temporal distribution of rainfall during the monsoon period of June–September is crucially important for food production in the country. In this respect, the rainfall in 2013–14 has been favourable in most parts of the country in 2013–14. There have been regions where the rains were deficient and some regions where the rains were excessive. Rainfall was consistently below normal in the eastern states of Bihar, Jharkhand, Assam and neighbouring states and excess in central India (Table III.1).

Taking into account a variety of factors, the Agricultural production Index (discussed in detail in the June Outlook Report⁴) is projected at 124.2 in 2013–14 using DES production index and 131.6 using the FAO production index representing an increase of around 10 per cent over estimated 2012–13 index. A favourable rainfall this monsoon has bolstered agricultural production outlook for 2013–14, after a below normal rainfall in the previous year. Various factors impacting kharif food production remained generally favourable during the monsoon period of June–September.

Generally, rainfall pattern was favourable for sowing operations in kharif season. It was also favourable in replenishing water reservoirs needed to sustain rabi crops. The rainfall deficiency in Punjab and Haryana in July and September was to some extent offset by the normal rains in the previous months of June and August. In western UP, rainfall was scanty in September but normal rains the previous two months helped sustain field operations. In Eastern UP, rainfall was deficient to scanty in July and September and even in August, it was 16 per cent below LPA. In this respect, E. UP, Bihar, Jharkhand, Hilly West Bengal and north-eastern region are adversely affected by deficient rainfall in kharif season of the current year. Rice and maize, which are the main crops grown in these regions in kharif are likely to be adversely affected.



A favourable rainfall this monsoon has bolstered agricultural production outlook for 2013–14, after a below normal rainfall in the previous year. Various factors impacting kharif food production remained generally favourable during the monsoon period of June–September.

4. See under publications section Quarterly Agricultural Outlook Report, June 2013 in <http://agrioutlookindia.ncaer.org/>



Barring the eastern and north-eastern regions, where rainfall was termed deficient through most of the monsoon season, the other meteorological sub-divisions in the country received adequate rainfall during the monsoon season as a whole.

Table III.1: Pattern of Rainfall During June–September 2013 Across India's Meteorological Sub-divisions

Meteorological sub-division	June	July	August	September	June–September
Jammu & Kashmir	E	N (-10%)	E	D	E
Himachal Pradesh	E	D (-28%)	N (-14%)	D	N
Punjab	E	D (-37%)	E	S (-73%)	N
Haryana	E	D (-42%)	N (-7%)	D (-47%)	D
Uttarakhand	E	N	N (-15%)	D (-47%)	N
Westren-UP	E	N	N (-3%)	S	N
Eastern-UP	E	D (-23%)	N (-16%)	S	N
Bihar	N	D (-47%)	D (-27%)	D	D
Jharkhand	N (-11%)	D (-37%)	N (-12%)	D	D
WB-Hills	N (-17%)	N	N (-17%)	D	N (-15%)
WB-Gangetic	N	D (-21%)	E (26%)	N	N
Assam	D (-50%)	D (-37%)	D (-21%)	D	D
Arunachal Pradesh	D (-50%)	D (-37%)	D (-28%)	D	D
Meghalaya	D (-55%)	D (-41%)	D (-32%)	D	D
Odisha	E	N	D (-30%)	N (-15%)	N
Chhattisgarh	E	N	N (-5%)	D (-36%)	N
Eastern-MP	E (132%)	E	E	S	E
Western-MP	E (150%)	E	E	D	E
Eastern-Rajasthan	E	E	E	N	E
Western-Rajasthan	E	N	E	E	E
Gujarat	E	E	N (-14%)	E	E
Saurashtra & Kutch	E	N	N (-19%)	E	E
Coastal Maharashtra	E	E	D	N	E
Marathwada	E	E	D	E	E
Madhya Maharashtra	E	N	D	N	N
Vidarbha	E (120%)	E (120%)	N	D	E
North Interior-Karnataka	N	E	D (-39%)	E	N
South Interior-Karnataka	E	E	N (-6%)	E	E
Coastal Karnataka	E	E	N (-12%)	E	N
Kerala	E	N	N (-12%)	E	E
Tamilnadu	E	D (-38%)	E	N	N
Rayalaseema-Andhra Pradesh	N	N	N (-12%)	E	N
Telengana-Andhra Pradesh	E	E	N	N	E
Coastal-Andhra Pradesh	N	N	N (-19%)	N (-13%)	N (-10%)
India	E (32%)	N (6%)	N (-2%)	N (-14%)	N (6%)

Note: E= Excess, D= Deficient, N= Normal and S= Scanty rainfall relative to LPA. We have indicated actual deviation from LPA in some cases to indicate that even though the rainfall is seen as normal the actual deviation from LPA may be significant. In the same manner, the deficient rainfall includes cases where deviation from normal can be over 30 per cent and excess rainfall may be as much as 20 per cent above LPA.

Source: Data from India Meteorology Department, End of Season Report.

A set of projections output in 2013–14 were presented in Part I of the report for the major kharif crops. These projections were based on analysis of historical trend and the impact of rainfall during the monsoon period of June–September. The estimates for 2013–14 are somewhat above the official 1st Advance estimate for 2013–14 as in the case of kharif foodgrain production where our estimates are 133.5–138.4 million tonnes against the 1st AE are of 129.3 million tonnes. The above normal monsoon rains in most parts of the county, including the rains in post monsoon month of October have provided a favourable condition for the planting of rabi crops as well. Although, September rainfall in 2013 was 14 per cent below the long period average of rainfall during the month, withdrawal of the monsoon was delayed relative to the normal pattern, helping provide moisture for sowing of the rabi crops. The water levels in most reservoirs are reported higher than last year. As a result, outlook for production of most crops in 2013–14 is positive.

III.3 High Food Inflation

Overall yoy inflation based on wholesale price index (WPI) in August strengthened to a six month high of 6.1 per cent spurred largely by high food inflation, which rose to 18.2 per cent (Figure III.1 and Table III.3) fuelled mostly by rice and onion.

Rice price inflation on year on year basis continued to remain high at over 20 per cent and onion price inflation peaked to a massive 245 per cent. Wheat and milk prices rose only modestly at 7.6 per cent and 5.6 per cent respectively whereas prices of pulses and potato declined substantially and sugar and vegetable oil prices declined modestly.

The decline in prices of pulses, vegetable oils and sugar is due to higher production combined with lower world market prices. The record onion price increase is attributed partly to a decline in production combined with market inefficiencies.

Both supply and demand factors have an impact on food prices. While favourable terms of trade for agriculture are necessary for inducing investments to increase productivity and production, large price fluctuations, even if they are increased prices, can distort allocation of resources. The production shocks can produce sudden fluctuations in prices and the supply chain bottlenecks exacerbate these price spikes. The lumpy nature of harvest during the year and relatively year round consumption demand require efficient transportation and storage infrastructure.

The high food inflation, characterised by double digit rise in the prices of food articles for much of 2012 and the first half of 2013 reflect both supply and demand pressures. The onion crop of 2012–13 was lower than the output in the previous year. On the other hand, while rice production was only marginally lower in 2012–13 as compared to the earlier year along with adequate stocks, higher prices in 2012–13 also reflect the increased cost pressures in rice production.

With the improved production outlook for 2013–14 for agricultural produce in general, price pressures on food commodities are expected to moderate for the year. As discussed in Part I of the report, projection of the price trends in short run suggest that price pressures are likely to moderate in the period of October 2013–January 2014.

Overall Year on Year inflation based on wholesale price index (WPI) in August strengthened to a six month high of 6.1 per cent spurred largely by high food inflation

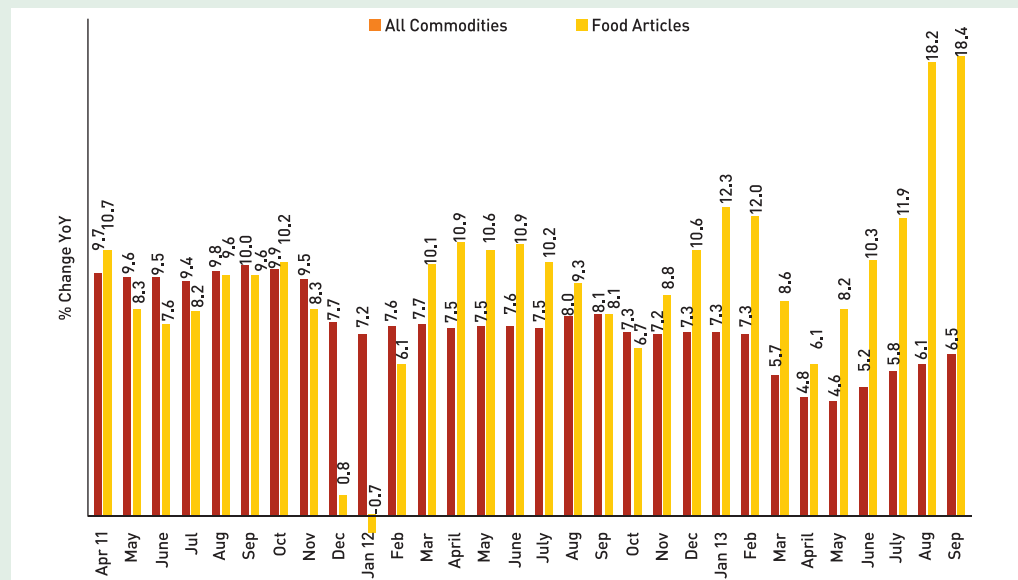
The high food inflation, characterised by double digit rise in the prices of food articles for much of 2012 and the first half of 2013 reflect both supply and demand pressures.



Table III.2: YoY Inflation Trend in Major Food Commodities: WPI % change YoY

	Food articles	Rice	Wheat	Pulses	Potato	Onion	Milk	Veg oils	Sugar
Jan'12	-0.68	0.94	-3.42	11.01	-23.15	-75.62	12.33	9.43	2.54
Feb	6.12	1.53	-3.95	7.86	-2.22	-48.66	11.70	7.65	4.07
Mar	10.11	5.03	-0.58	10.10	18.43	-24.06	15.29	9.94	2.87
Apr	10.92	5.98	5.97	11.29	59.30	-11.03	15.68	11.18	3.16
May	10.63	4.89	6.75	16.77	72.17	-8.05	11.90	10.37	5.24
Jun	10.91	7.46	6.76	20.59	84.91	-9.46	7.46	9.52	7.13
Jul	10.17	9.95	6.44	28.57	73.24	-10.05	8.01	10.85	9.38
Aug	9.34	10.35	12.97	34.54	70.74	-20.71	6.68	10.91	16.91
Sep	8.06	12.58	18.87	28.98	52.45	-24.69	6.45	10.71	19.87
Oct	6.72	14.97	19.78	19.86	49.13	-9.12	6.35	9.38	18.88
Nov	8.80	15.28	23.25	18.77	67.85	16.55	6.18	9.76	15.48
Dec	10.63	17.10	22.63	16.25	58.03	72.79	6.15	9.20	9.84
Jan'13	12.35	17.77	21.87	15.89	73.10	125.17	4.52	7.54	10.09
Feb	11.95	17.75	21.81	13.95	50.14	182.36	4.52	7.04	10.49
Mar	8.63	17.56	19.35	10.84	15.80	110.74	4.42	3.60	9.35
Apr	6.08	17.09	13.55	10.52	-0.63	90.83	4.04	2.01	8.67
May	8.25	18.48	12.37	5.95	1.28	94.28	4.46	0.89	7.10
Jun	10.27	20.43	13.94	1.59	-8.38	114.76	4.08	0.07	6.93
Jul	12.29	21.15	13.64	-7.43	-6.13	146.43	3.02	-2.23	2.20
Aug	18.18	20.13	7.60	-14.40	-15.13	244.62	5.63	-3.86	-4.20
Sep	18.40	18.76	5.90	-13.42	-13.10	322.94	5.77	-2.58	-7.49

Figure III.1: Food Inflation Exceeds Overall Inflation Rate



III.4 India's Agricultural Trade in The Post-trade Liberalisation Period

III.4.1 General trends

A significant phase of trade liberalisation in India commenced with the Export-Import Policy for 1992–97. Quantitative restrictions (QR) on imports were phased out in stages

and exports were liberalised. The Export-Import Policy (1997–2002) amendments of March 31, 2001, removed QRs on India's remaining restricted items including most agricultural products in line with the WTO commitments. Trade liberalisation has taken place in the context of liberalisation of overall economic policies relating to investments, pricing and markets.

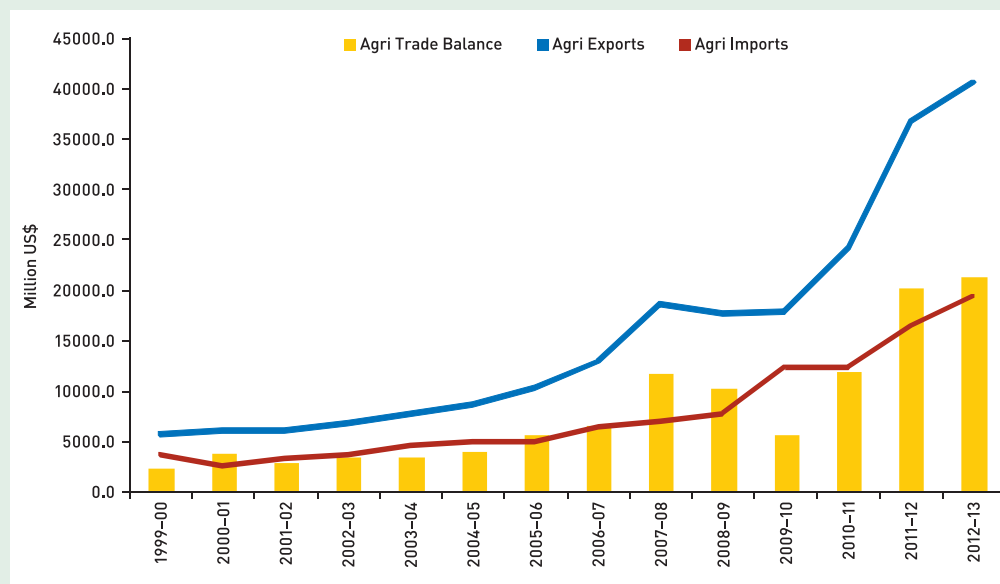
Although, agricultural trade momentum was slow in the initial stages of trade liberalisation due to both high tariffs and non-tariff barriers, subsequently there has been a significant growth in India's two way agricultural trade.

India's imports of agriculture, fishery, meat, dairy and processed food items increased from \$3.5 billion in 1999–2000 to \$19.3 billion in 2012–13, almost a six-fold increase, whereas agricultural exports, both traditional and non-traditional increased from \$5.7 billion in 1999–00 to \$40.6 billion in 2012–13 – a seven-fold increase. Thus India's two way trade in agriculture and related products increased from \$9.2 billion in the pre-trade liberalization period to \$60 billion in 2012–13 (Figure III.2). However, the share of agriculture in India's overall two way trade declined marginally to around 7.5 per cent in 2012–13 from 10.6 per cent in 1999–00 as trade in non-farm goods rose even faster. Increased trade has meant easier access to international markets for supplies and also demand for the produce.

There has been a definite shift in cropping pattern in favour of export-oriented agricultural and food products such as basmati rice, soybeans, cotton, maize, and some fruits and vegetables such as grapes, onion, etc. Trade liberalisation also provided an impetus to the domestic food processing and fast food sectors as food processors and food chains now have increased access to various imported food products and ingredients.

Although agricultural trade momentum was slow in the initial stages of trade liberalization due to both high tariffs and non-tariff barriers, subsequently there has been a significant growth in India's two way agricultural trade.

Figure III.2: Trends in Trade in Agricultural and Allied Food Products



III.4.2 Import of food items

Among traditional imported food items, the largest increase was registered in vegetable oils (mainly palm oil, and soybean oil), pulses, and raw cashew nuts (mainly for processing and re-exports). However, imports of several new niche consumer food products also registered significant growth during the post trade liberalization period. These include dry fruits (mainly almonds and pistachios), fresh fruits (mainly apple, grape and pear),

The growing market for fast foods also resulted in a small but growing imports of food products such as coffee, chocolate and cocoa products, milk products (mainly whey, cheese, and bread spreads), fish and fish products, sauces, pasta, wine and other alcoholic beverages and soft drinks.

chocolates and wine. The growing market for fast foods also resulted in a small but growing imports of food products such as coffee, chocolate and cocoa products, milk products (mainly whey, cheese, and bread spreads), fish and fish products, sauces, pasta, wine and other alcoholic beverages and soft drinks (Table III.3, Figure III.3 and III.4).

Table III.3: Trends in Agricultural Imports by Major Product Groups (million US\$).

	1999-00	2000-01	2005-06	2006-07	2009-10	2010-11	2011-12	2012-13	Annual Trend Growth Rate (2000-01 to 2012-13)
Total veg oil	1,882.2	1,347.7	2,033.4	2,113.6	5,628.0	6,574.2	9,703.4	11,283.0	16.3%
Pulses	88.9	110.3	631.0	1,010.1	2,249.2	1,645.1	1,961.3	2,452.3	24.6%
Raw cashew-nuts, etc.	276.5	210.7	472.7	399.6	639.6	577.7	1,144.8	990.4	14.5%
Almonds, other nuts, fresh or dried	74.6	113.8	201.8	263.1	328.7	420.0	494.1	626.0	17.9%
Cane/beet sugar	256.3	7.0	147.2	0.8	1,270.4	609.3	63.8	568.1	24.4%
Cotton	281.2	257.8	155.1	142.2	257.3	132.8	219.4	452.2	-1.3%
Major Spices	37.0	35.9	91.9	95.8	139.4	150.6	251.6	284.2	14.7%
Fesh fruits	9.7	14.5	36.8	53.0	127.4	179.3	254.8	284.7	29.9%
Dates, figs, etc.	48.7	43.5	69.0	98.5	139.2	180.2	194.6	211.7	15.4%
Coffee	2.9	3.9	37.7	23.8	61.6	62.7	95.9	142.0	40.5%
Chocolate & cocoa products	5.3	6.6	21.8	26.4	64.8	104.9	162.0	156.5	32.4%
Fish & fish products	7.1	5.3	11.7	15.3	28.2	64.2	83.8	47.2	26.4%
Dairy products	17.5	9.2	6.3	21.4	57.7	85.5	55.5	27.8	15.3%
Other	539.7	309.2	937.6	2,050.5	1,256.7	1,437.3	1,714.5	1,772.1	14.8%
Total	3,527.6	2,475.3	4,854.0	6,314.0	12,248.1	12,223.9	16,399.2	19,298.2	16.0%

Figure III.3: Trends in Imports of Traditional Food Items

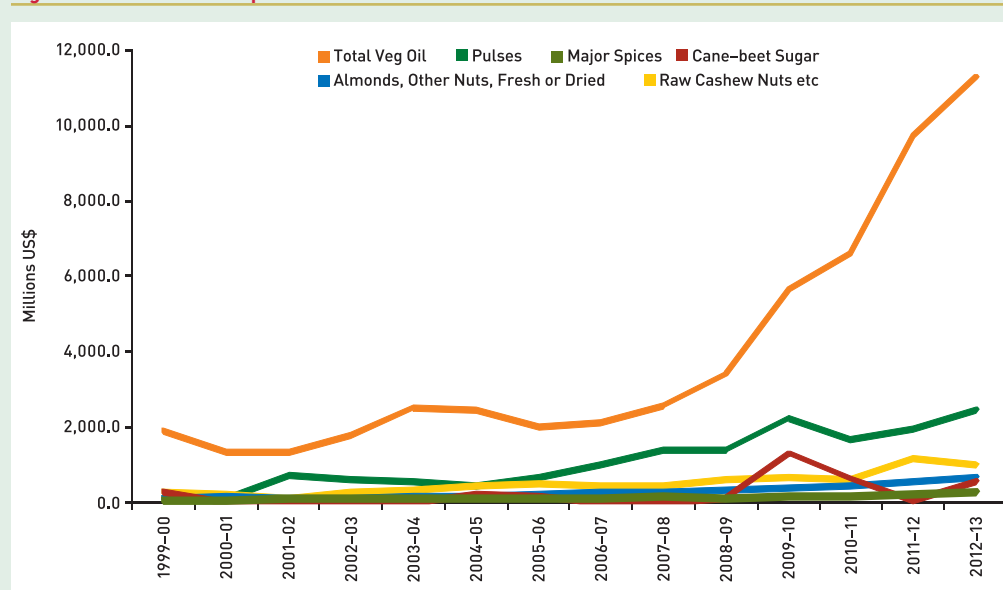
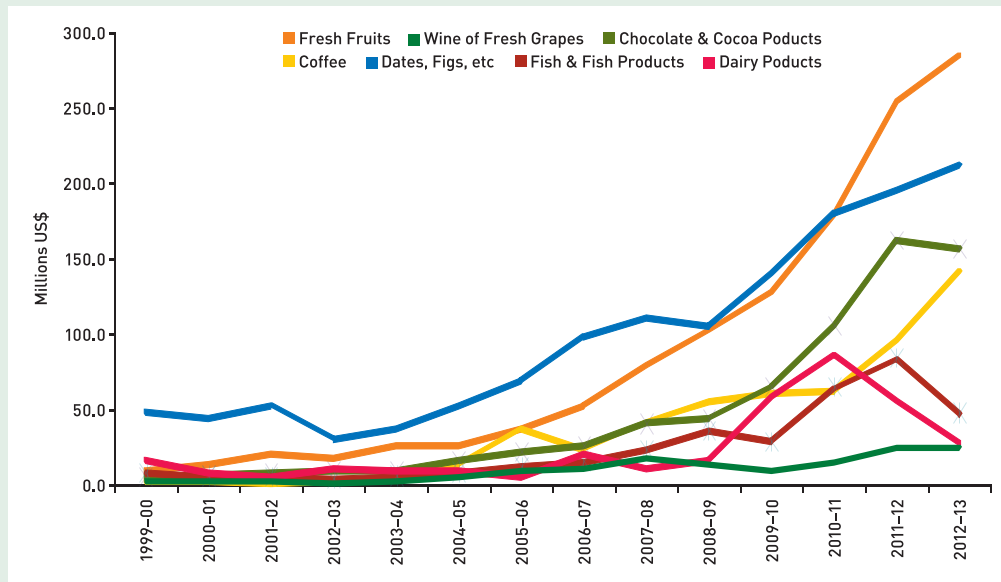


Figure III.4: Trends in Imports of Major Non-traditional Food Items



III.4.3 Export of food items

As far as export growth in major agricultural and allied products is concerned, significant gains were registered in raw cotton, rice, guar gum, bovine meat, spices, soybean meal, castor oil, maize and sugar. The most spectacular increase was in cotton, guar gum, buffalo meat and soybean meal, which have emerged as the top export items registering an annual compound growth of over 20 per cent. A significant increase in cotton production since the introduction of Bt cotton about eight years ago has made the sharp increase in cotton exports possible. The demand for guar gum is growing mostly in the U.S. Inventory build up and a significant price rise in world market has resulted in a five to six fold increase in guar gum exports value during the past two years. With the removal of restrictions on wheat exports in 2011, wheat exports have also made significant gains during the past two years. India in recent years has become a leading exporter of buffalo meat.

Among traditional export products, cashew nuts, tea, coffee, and shrimp and fish products have registered a relatively modest growth due to increased competition from other major producing countries. New and emerging export products include onion, grapes, bakery products, milk and cream, tomato, jams and jellies, honey, barley, wheat flour, and various processed consumer food products (Table III.4, Figures III.5 to III.7).

As far as export growth in major agricultural and allied products is concerned, significant gains were registered in raw cotton, rice, guar gum, bovine meat, spices, soybean meal, castor oil, maize and sugar.

Table III.4: Trend in Agricultural Exports by Major Product Groups (million US\$)

Commodity	1999– 2000	2000– 2001	2005– 2006	2006– 2007	2010– 2011	2011– 2012	2012– 2013	Annual Growth Rate (2000– 01 to 2012– 13)%
Rice	721.4	644.3	1,405.2	1,556.9	2,544.7	4,940.4	6,216.0	17.7%
Cotton	11.2	13.5	637.0	1,350.3	2,865.9	4,258.0	3,659.0	72.9%
Meat & edible meat offal	184.5	318.6	615.2	729.2	1,957.7	2,908.9	3,284.5	24.5%
Guar gum	212.7	153.0	302.8	334.7	769.4	3,533.3	4,182.2	25.2%
Shrimp & fish	1,163.9	1,376.4	1,421.2	1,563.3	2,321.0	3,286.4	3,322.7	7.2%
Oilmeal	377.9	447.3	1,090.3	1,200.9	2,437.9	2,420.5	3,038.6	19.5%
Wheat and meslin	0.1	90.9	125.9	7.7	0.2	202.1	1,934.2	-14.3%
Cane/beet sugr	3.8	94.6	128.3	689.6	1,196.2	1,836.0	1,572.0	30.7%
Maize	1.1	6.0	71.4	110.7	740.3	1,058.9	1,305.3	63.3%
Tea	403.5	424.3	371.1	406.3	707.6	811.9	828.3	6.9%
Cashew nuts	593.3	449.1	585.4	552.1	642.8	959.7	787.6	5.0%
Castor oil and other veg oils	226.0	198.8	233.3	259.7	665.5	982.8	824.1	15.3%
Hps goundnut	85.8	69.3	116.0	176.7	480.5	1,093.1	747.4	24.6%
Unmanufactured tobacco	187.4	144.8	230.7	276.3	692.3	602.8	701.4	16.0%
Spices	315.4	257.0	277.7	466.6	982.6	1,545.9	1,315.9	16.9%
Coffee	264.3	175.9	254.1	316.5	485.9	701.6	593.8	10.9%
Onions, shallots, garlic	49.2	61.6	168.8	262.5	408.6	360.6	376.3	19.7%
Coffee & tea extracts	75.4	92.7	127.1	148.9	217.0	301.6	322.0	11.7%
Bread, pastry, cakes, biscuits	5.8	7.8	70.4	75.6	161.0	235.8	247.1	33.9%
Pulses	96.9	117.8	254.0	174.0	191.5	228.0	236.4	6.9%
Fresh fruits	66.0	67.5	236.6	303.1	444.1	506.5	588.3	20.9%
Seeds & planting material	44.2	78.2	79.3	86.2	140.9	168.4	208.9	9.9%
Dairy products	11.1	21.5	147.6	89.3	114.9	51.4	253.6	19.7%
Undnatrd ethyl alchl wth	13.0	30.7	46.1	47.4	156.9	268.4	314.0	26.7%
Vegetables	4.4	3.1	12.2	21.1	62.1	122.9	126.3	38.3%
Jams frut jelly marmallds	4.4	6.1	24.1	27.7	58.6	82.9	85.2	28.6%
Wheat or meslin flour	0.2	31.8	10.0	12.1	23.1	42.4	84.9	11.0%
Coarse grains excluding maize	0.2	31.8	10.0	12.1	23.1	42.4	84.9	11.0%
Lactose, maltose, glucose, etc.	2.1	3.6	13.2	14.5	41.6	64.6	78.6	28.7%
Fruits nuts prepd/prsvd,	8.4	20.4	17.7	21.9	25.5	53.5	70.0	14.0%
Natural honey	2.2	1.8	26.3	13.4	66.4	68.3	65.9	30.8%
Starches; inulin starches:	1.2	1.7	4.5	4.5	23.5	49.4	65.3	33.3%
Sugr cnfctnry	4.7	4.9	20.6	26.1	50.5	65.1	58.8	24.2%
Chocolate and products	3.0	2.1	4.2	7.2	15.2	22.6	42.5	23.4%
Other	573.5	710.7	1,244.0	1,513.2	2,415.6	2,790.0	2,963.7	22.7%
Total agri and allied products	5,718.1	6,159.1	10,381.9	12,858.2	24,130.3	36,666.9	40,585.2	16.8%

Figure III.5: Export Trend in Major Traditional Agricultural Commodities (million US\$)

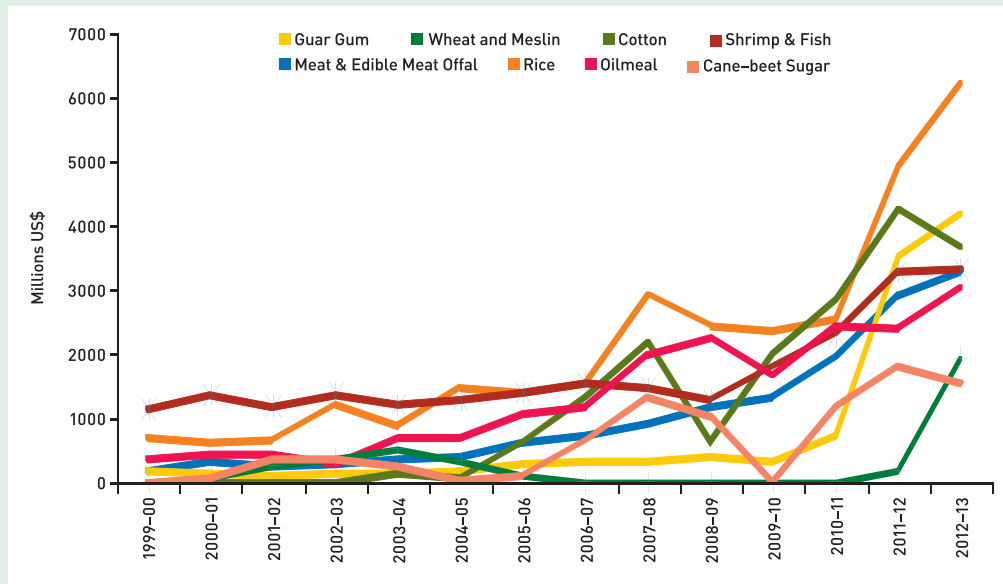


Figure III.6: Export Trend in some Conventional Agricultural Commodities (million US\$)

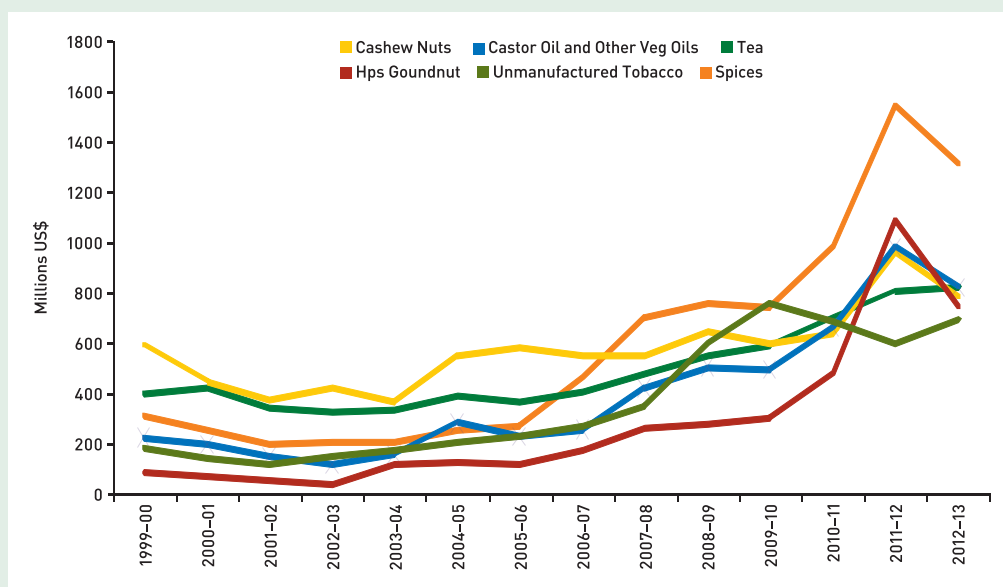
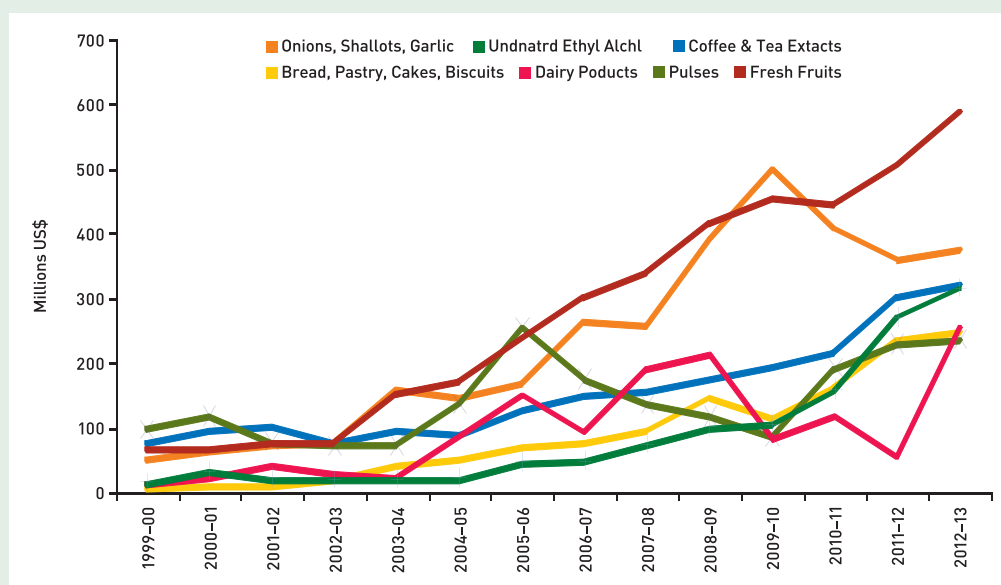


Figure III.7: Export Trend in some New and Emerging Agricultural Commodities (million US\$)


III.5 Policy Developments

A summary of the policy initiatives on agriculture and related sectors taken during the past quarter is provided in Table III.5.

Table III.5: Agri-Policy Developments during July – October 2013

Sl. No.	Product	Date/ Month	Policy Instrument	Details
1.	Food grains	2/9/13	Parliament Legislation	Parliamentary approval was accorded to the Food Security Bill
Remarks: The National Food Security Act gives right to subsidised grains to two-thirds of India's 1.2 billion population. Under the legislation, beneficiaries would get five kg of grain per person per month which would include rice at Rs 3 per kg, wheat at Rs 2 per kg and coarse grains at Re 1 per kg.				
2.	Oilseeds	3/10/13	CCEA	Approval of National Mission on Oilseeds and Oil Palm during the 12th Five Year Plan
Remarks: Enhancing production of oilseeds and also bring additional area under oil palm cultivation.				
3.	Rice, wheat, pulses	20/9/13	CCEA	Continuation of ongoing Centrally Sponsored Scheme – National Food Security Mission during 12th Plan period
Remarks: Additional foodgrains production of 25 million tonnes consisting of 10 million tonnes of rice, 8 million tonnes of wheat, 4 million tonnes of pulses and 3 million tonnes of coarse cereals by 2016–17.				
4.	Wheat	8/8/13	CCEA	Approval for export of 20 lakh tonnes of wheat from central pool stock of Food Corporation of India during the current financial year subject to a floor price of US\$ 300 per metric tonne through the Central Public Sector Undertakings
Remarks: This would make available space for storage of fresh foodgrains in the godowns of FCI and thereby help in proper management of foodgrain stocks and save storage and handling cost.				
5.	Onion	19/9/13	DGFT	MEP on onion increased to \$900 per tonne from \$650 per tonne
Remarks: Augments domestic supplies.				
6.	Edible oil	9/10/13	DGFT	Export of edible oils in branded consumer packs of upto 5 Kgs is permitted with a Minimum Export Price of USD 1400 per MT.
Remarks: A reduction in MEP from \$1500 per tonne.				

Note: Press Information Bureau Press releases.

PART IV

Commodity Outlook Assessment

IV.1 Rice

IV.1.1 Production trends

Timely arrival of the monsoon this year, its rapid progression and even distribution has resulted in an increase in kharif rice planted area and should help in realizing higher yield. However, the optimism is tempered to some extent by poor rainfall in some of the eastern and north eastern states such as Bihar, Assam, and Jharkhand (Figure III.3) and crop loss resulting from cyclone Phailin which struck coastal Odisha on October 12 and subsequent heavy rains along the eastern coastal region of Andhra Pradesh and Odisha and in Bihar, where rice is a major crop.

Kharif rice sown area as on October 4 was 2 per cent ahead of last year at 37.7 million hectares. Apart from generally favourable rains, many of the factors influencing kharif agricultural production, namely input availability, price, demand and external trade factors are favourable for rice production this year. However, the government's first AE pegs kharif rice production at 92.32 million tonnes, marginally below the 4th AE of 92.76 in 2012–13. The 1st AE is typically much below the final estimate and therefore an upward revision in 2013–14 kharif rice production is expected in later stages. Our statistical analysis using trend variable, this year's rainfall departure from normal (+6 per cent) gives a forecast of 94.3–97.3 million tonnes for kharif rice production. Rice production in the rabi season will depend upon irrigation availability, particularly in the southern and eastern states. This year irrigation availability in major rabi rice growing states such as Andhra Pradesh and West Bengal is better than last year, thanks to late season rains. Using average production in recent years of around 12 million tonnes for the 2013–14 rabi crop, total 2013–14 rice production is forecast at 106–109 million tonnes.

According to government's 4th Advance Estimate, total rice production in 2012–13 was a near record 104.4 million tonnes, only marginally down from the record 2011–12 production of 105.3 million tonnes. Whereas 2012–13 kharif rice production equalled the previous year's record production of 92.8 million tonnes, rabi production declined by about 1 million tonnes to 11.6 million tonnes, the lowest since 2005–06. The recent efforts to increase rice production in East India seem to have contributed to increased rice production, mainly due to increased yield. However, the rabi rice production after reaching a record 15.3 million tonnes in 2010–11 has not reached that level again which is a matter of concern.

IV.1.2 Consumption growth higher

Despite near record rice production in MY 2012–13, open market rice prices remained firm throughout the marketing year. On yoy basis, rice wholesale prices since the beginning of 2012–13 marketing year was 15 to 20 per cent above 2011–12 (Figure IV.1.1), mainly due to significant government purchases at the MSP which was increased in MY 2012–13 by 15

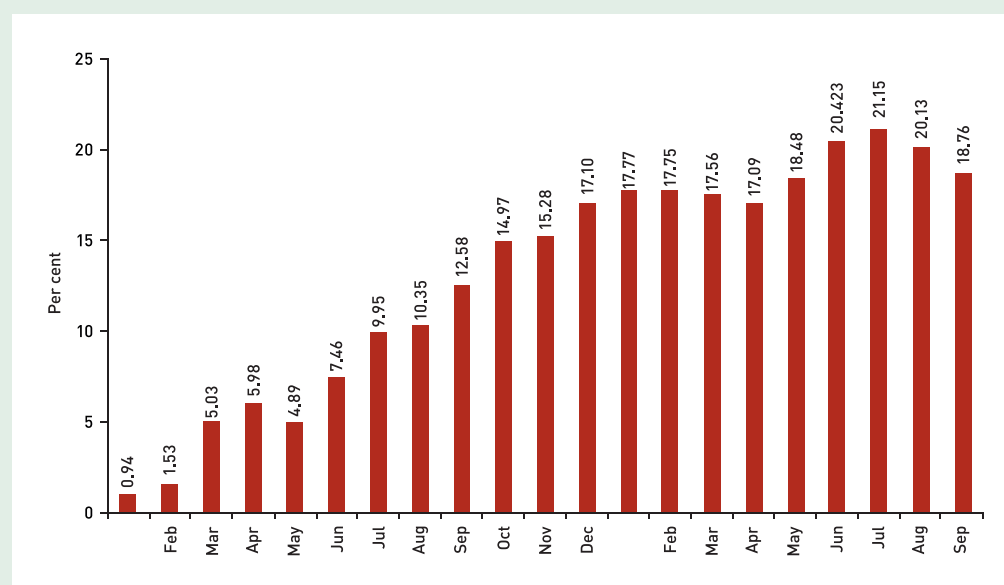


Apart from generally favourable rains, many of the factors influencing kharif agricultural production, namely input availability, price, demand and external trade factors are favourable for rice production this year.

Despite near record rice production in MY 2012–13, open market rice prices remained firm throughout the marketing year.

to 16 per cent over the previous year (Table IV.1.1). The paddy MSP for MY 2013–14 was increased by 4.8 per cent, significantly below the 2012–13 level.

Figure IV.1.1: YoY Increase in Rice Wholesale Price Index: % YoY



Despite higher prices, rice consumption is estimated to have increased by around 3 per cent in MY 2012–13 to 95 million tonnes as a result of increasing population and income growth.

Despite higher prices, rice consumption is estimated to have increased by around 3 per cent in MY 2012–13 to 95 million tonnes as a result of increasing population and income growth. To overcome the high rice prices in the open market, the government has been distributing more rice from its stocks through the PDS, contributing to consumption growth.

Table IV.1.1: Government Operations in Rice

Marketing Year (Oct–Sep)	Govt Procurement Million tonnes	MSP for Paddy Rs per tonne		Monthly Offtake Million tonnes*	PDS Issue Price for Milled Rice Rs Per tonne			Govt. Food Subsidy Billion Rs
		Common	Grade A		APL	BPL	AAY	
2002–03	16.4 (22.8)	5,500	5,800	2.175	8,300	5,650	3,000	241.8
2003–04	22.9 (25.8)	5,500	5,800	2.092	8,300	5,650	3,000	251.8
2004–05	24.7 (29.7)	5,600	5,900	1.733	8,300	5,650	3,000	258.0
2005–06	27.6 (30.1)	5,700	6,000	2.000	8,300	5,650	3,000	230.8
2006–07	25.1 (26.9)	6,200	6,500	2.067	8,300	5,650	3,000	240.1
2007–08	28.7 (29.7)	7,450	7,750	2.100	8,300	5,650	3,000	313.3
2008–09	34.1 (34.4)	9,000	9,300	2.058	8,300	5,650	3,000	437.5
2009–10	31.4 (35.2)	10,000	10,300	2.300	8,300	5,650	3,000	584.4
2010–11	34.2 (35.6)	10,000	10,300	2.494	8,300	5,650	3,000	638.4
2011–12	35.0 (33.2)	10,800	11,100	2.677	8,300	5,650	3,000	728.2
2012–13	34.0 (32.6)	12,500	12,800	2.719	8,300	5,650	3,000	850.0
2013–14	-	13,100	13,450	-	8,300	3,000**	3,000	900.0***

*Fiscal year basis ** Under NFSA *** Budgeted
Note: Figures in parentheses per cent of production.

Rice consumption in MY 2013–14 is forecast to register a growth of around 4 per cent as the government is likely to channel in more rice from its stock through the PDS to contain rice price inflation.

Operation of PDS and open market sale of grain from the government stocks would remain a strategy to keep prices under check. The average monthly offtake of rice through the PDS including various welfare programme in 2012–13 was 2.72 million tonnes. The recent National Food Security Act provides for distribution of 5 kgs of rice per head at Rs 3 per kg to below poverty line across the country. As the programme gets implemented by states, offtake is expected to increase.

IV.1.3 Exports continue to remain robust

A significant drop in rice exports from Thailand due to domestic policy initiative to support domestic prices through a rice mortgage programme combined with a gradual depreciation of Indian rupee against U.S. dollar helped Indian rice exports to scale a record high of over 10 million tonnes in MY 2011–12. India thus emerged as world's topmost rice exporter surpassing Thailand. Exports to Iran have increased, thanks to shippers being paid up front in rupees from a huge pool of oil money owed to Iran by India. Basmati rice exports accounted for about 35 per cent of total exports while non-basmati rice, mostly parboiled rice accounted for 65 per cent. While Iran, Saudi Arabia, Iraq, and Kuwait were major buyers of basmati rice, parboiled rice exports were mostly destined to Nigeria, and other African countries.

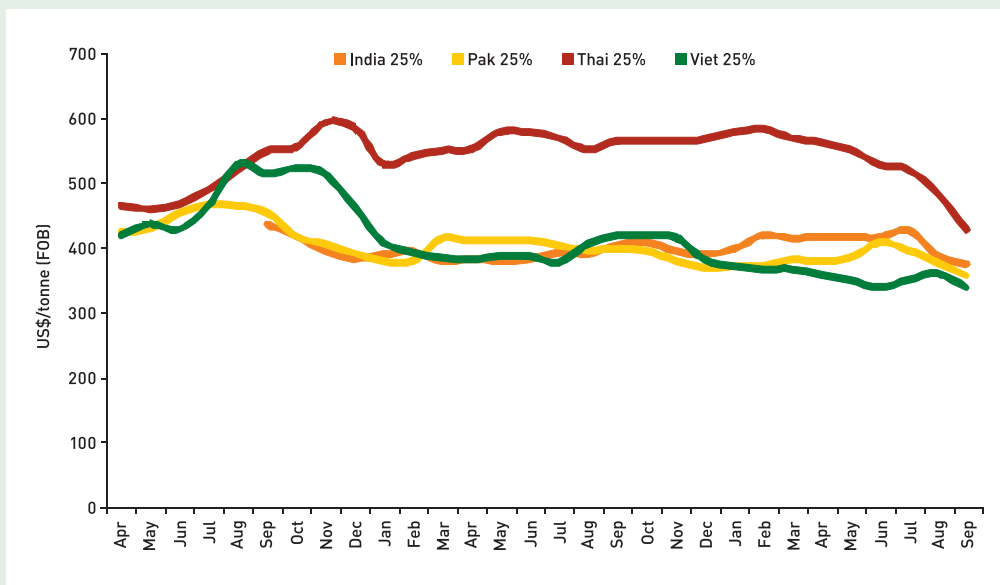
Despite initial apprehensions, India's rice exports remained strong in MY 2012–13. Indian rice exports continued to remain competitive in 2012–13 (Figure IV.1.2) due to a further significant depreciation of Indian rupee against US\$ and as the Thailand government pursued its rice mortgage programme thereby keeping its export prices high. Basmati rice exports registered a significant increase in 2012–13 mainly due to larger purchases by Iran. As a result rice exports in MY 2012–13 are likely to match 2011–12 exports of around 10 million tonnes and India is likely to remain the topmost rice exporter in the world for the second consecutive year. Larger global rice production in 2013–14 and record rice stocks could depress international prices, making Indian rice exports less competitive in 2013–14. There is also the possibility of Thailand releasing more rice in the global market. Therefore, Indian rice exports in MY 2013–14 are forecast to decline somewhat to around 9 million tonnes.

Operation of PDS and open market sale of grain from the government stocks would remain a strategy to keep prices under check.

Basmati rice exports accounted for about 35 per cent of total exports while non-basmati rice, mostly parboiled rice accounted for 65 per cent.



Figure IV.1.2: Rice Export Price – India vis-a-vis International



Source: FAO.

IV.1.4 Stocks

Government rice stocks on October 1, 2013, were around 23 million tonnes, marginally below the 23.4 million tonnes a year ago, but still three times the government's desired October 1 minimum buffer stock plus security reserve level of 7.2 million tonnes (figure IV.1.3). With likely higher rice procurement from the 2013–14 record harvest, stocks are likely to remain comfortable this marketing year despite likely higher offtake.

Figure IV.1.3: Government rice stocks – Actual vs Buffer Norm (million tonnes)

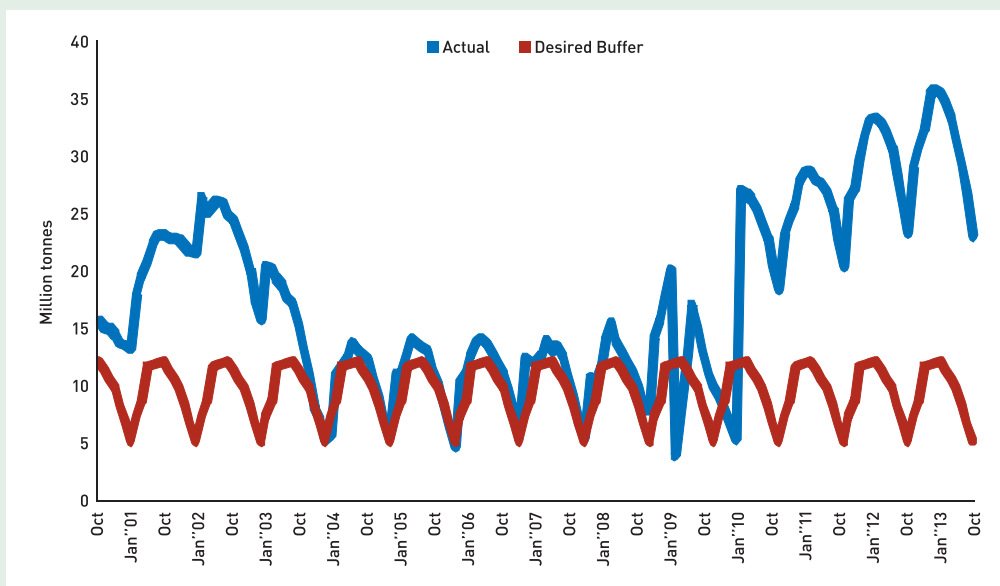


Table IV.1.2: Supply and Demand Balance for Rice (1000 tonnes)

Rice	2010-11 Oct-Sep	2011-12 Oct-Sep	2012-13E Oct-Sep	2013-14F Oct-Sep
Production	95,980	105,300	104,400	109,000
Beginning Stocks	18,444	20,360	23,370	23,000
Imports	0	0	0	0
Total Supply	114,424	125,660	127,770	132,000
Exports	2,774	10,400	10,000	9,000
Food Use	89,090	89,890	92,270	96,400
Seed, Feed, Waste, Other	2,200	2,000	2,500	2,600
Total Use	91,290	91,890	94,770	99,000
Ending Stocks	20,360	23,370	23,000	24,000
Total Distribution	114,424	125,660	127,590	131,000
Stocks to Use Ratio %	22	25	24	24
Government Rice Operation				
Beginning Stocks	18,444	20,360	23,370	23,000
Imports	0	0	0	0
Procurement	34,196	35,000	34,000	36,000
Total Availability	52,640	55,360	57,370	59,000
PDS Offtake	32,280	31,990	34,370	35,000
Exports	0	0	0	0
Ending Stocks	20,360	23,370	23,000	24,000
Total Distribution	52,640	55,360	57,370	59,000

Note: Stocks are only government stocks. Total use is the residual and includes private stocks change. We assume no significant change in PDS offtake due to food security ordinance in the current year.

IV. 2 Wheat

IV.2.1 MY 2014-15 outlook promising

The government's 4th AE lowered the MY 2013-14 wheat production by about a million tonnes from the 3rd AE to 92.46 million tonnes, 2.5 million tonnes below the 2012-13 record production of 94.88 million tonnes. Despite adverse weather conditions, decline in yield in all major growing states is estimated to be minimal depicting the resilience of wheat production to unfavourable weather conditions.

Production outlook for MY 2014-15 appears promising. Late season monsoon rains in most wheat growing regions, particularly Madhya Pradesh, Rajasthan and Bihar has replenished soil moisture providing a favourable planting condition. In UP, western region has received normal rainfall although in eastern region rainfall was deficient in the later part of the monsoon season. Improved water levels in most irrigation dams and wells should provide a cushion in case winter rains turns out to be below optimum. Although the government has established a wheat production target of 92.5 million tonnes, actual production could match or exceed the 2012-13 record production of about 95 million tonnes provided no major weather catastrophe occurs and the crop remains free from any major disease outbreak.

Production outlook for MY 2014-15 appears promising. Late season monsoon rains in most wheat growing regions, particularly Madhya Pradesh, Rajasthan and Bihar has replenished soil moisture providing a favourable planting condition.

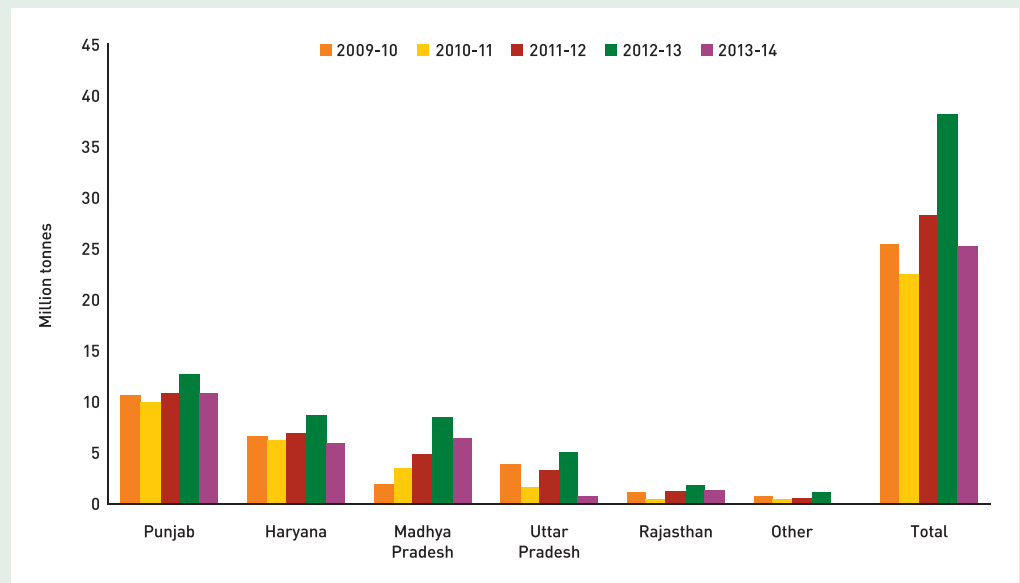
Government wheat procurement after scaling a record level of 38.2 million tonnes in MY 2012–13 declined sharply to around 25.0 million tonnes in MY 2013–14, leaving larger quantities of wheat in the open market.

IV.2.2 Consumption to pick up

Wheat consumption including food, feed, seed, and waste in MY 2013–14 is forecast to increase significantly due to larger availability of wheat in the open market following lower wheat procurement by the government and the government decision to make larger open market sales in coming months to contain price rise. Government wheat procurement after scaling a record level of 38.2 million tonnes in MY 2012–13 declined sharply to around 25.0 million tonnes in MY 2013–14, leaving larger quantities of wheat in the open market. All major wheat growing states recorded a decline in wheat procurement (Figure IV.2.1).

The monthly offtake of wheat from government stocks for PDS, open market sale, and other welfare programmes (excluding exports) averaged 2.5 million tonnes per month in 2012–13. Offtake in MY 2013–14 is likely to remain more or less at the same level.

Figure IV.2.1: Trend in Wheat Procurement by State



	Punjab	Haryana	Madhya Pradesh	Uttar Pradesh	Rajasthan	Other	Total
2009-10	10.73	6.72	1.97	3.88	1.15	0.93	25.38
2010-11	10.03	6.37	3.54	1.65	0.48	0.45	22.51
2011-12	10.96	6.93	4.96	3.46	1.30	0.72	28.34
2012-13	12.83	8.67	8.49	5.06	1.96	1.13	38.15
2013-14 #	10.89	5.87	6.36	0.68	1.25	0.05	25.10

As on June 5, 2013.

Table IV.2.1: Government Operations in wheat

Marketing Year (Apr–Mar)	MSP Rs per tonne		Govt Procurement (Million tonnes)	PDS Monthly Offtake* Million tonnes	PDS Issue Price (Rs Per tonne)			Food Subsidy (Billion \$)
					APL	BPL	AAY	
2002–03	6200	19.0 (26.1)	2.21	6,100	4,150	2,000	241.8	
2003–04	6,300	5,500	5,800	2.092	6,100	4,150	2,000	251.8
2004–05	6,300	5,600	5,900	1.733	6,100	4,150	2,000	258.0
2005–06	6,400	5,700	6,000	2.000	6,100	4,150	2,000	230.8
2006–07	6,500	6,200	6,500	2.067	6,100	4,150	2,000	240.1
2007–08	8,500	7,450	7,750	2.100	6,100	4,150	2,000	313.3
2008–09	10,000	9,000	9,300	2.058	6,100	4,150	2,000	437.5
2009–10	10,800	10,000	10,300	2.300	6,100	4,150	2,000	584.4
2010–11	11,000	10,000	10,300	2.494	6,100	4,150	2,000	638.4
2011–12	11,700	10,800	11,100	2.677	6,100	4,150	2,000	728.2
2012–13	12,850	12,500	12,800	2.719	6,100	4,150	2,000	850.0
2013–14	13,500	13,100	13,450	-	6,100	2,000	2,000	900.0***

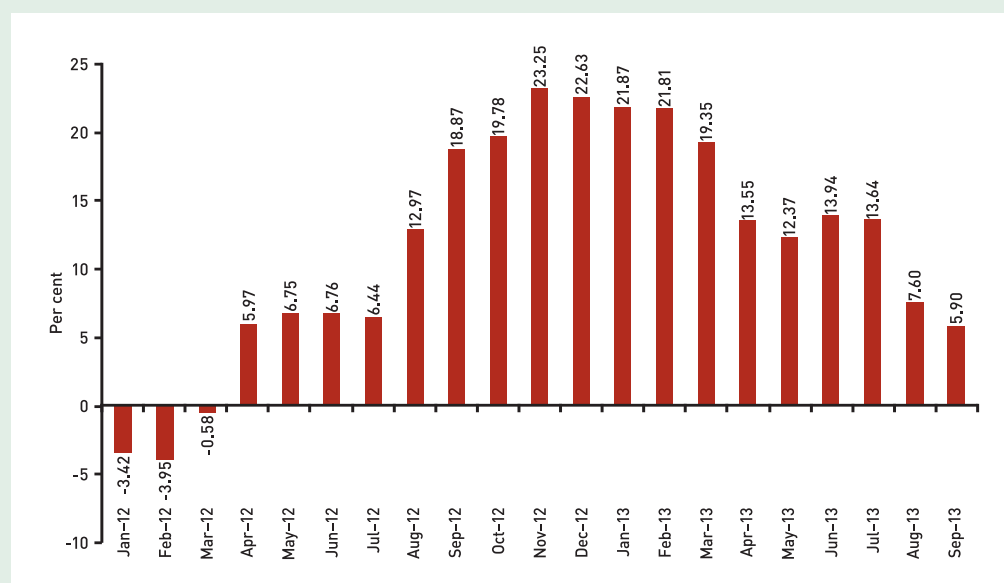
*Fiscal year basis ** Under NFSA *** Budgeted

Note: Figures in parentheses per cent of production.

IV.2.3 Wheat price inflation decelerates but still high

Yoy wheat price inflation measured by wholesale price index has weakened in recent months dropping to 5.9 per cent in September 2013 compared to 19 per cent a year ago reflecting larger wheat availability in the open market. The government decision to release 10 million tonnes of wheat in the open market should keep prices under check in coming months. For MY 2014–15 the government has announced a marginal increase in the MSP from Rs 13,500 in MY 2013–14 to Rs 14,000 per tonne. A likely higher wheat production combined with the modest increase in MSP is expected to contain any significant increase in wheat prices in MY 2014–15.

A likely higher wheat production combined with the modest increase in MSP is expected to contain any significant increase in wheat prices in MY 2014–15.

Figure IV.2.2: Wheat Price Inflation: WPI (%YoY)

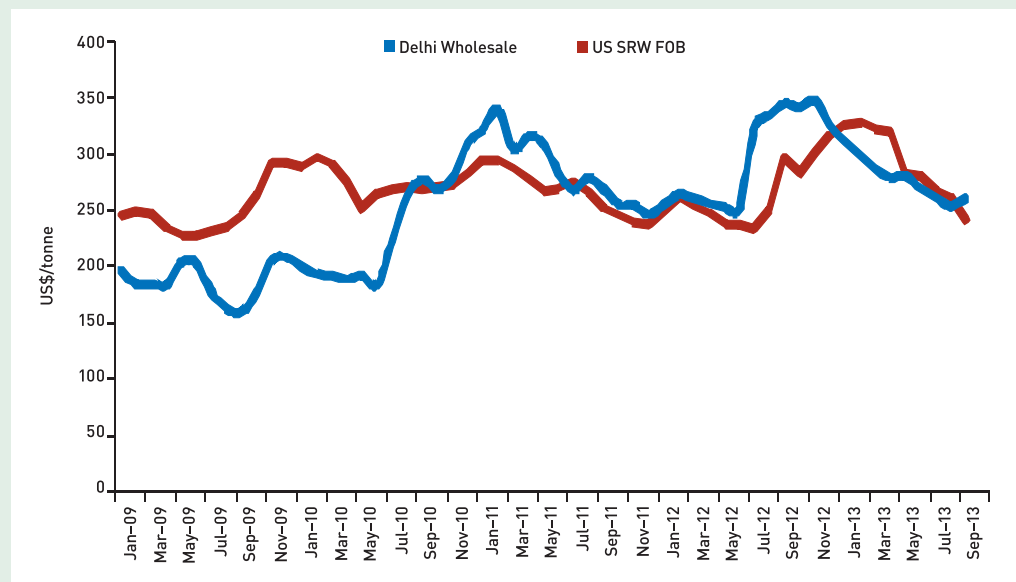
Indian wheat exports are facing increased competition in 2013–14 because of improved global wheat production situation and lower prices.

Following a steep decline in government wheat procurement this marketing year, government wheat stocks have declined, with October 1, 2013 stock at 36.1 million tonnes compared to 43.2 million tonnes a year ago.

IV.2.4 Export outlook less promising

Indian wheat exports are facing increased competition in 2013–14 because of improved global wheat production situation and lower prices. Although, the government has allocated 2 million tonnes of wheat from its stocks for exports, because of the high minimum export price (\$300 per tonne) established by the government exports have slowed. A significant depreciation of Indian rupee against US\$ in recent months has provided some relief to wheat exports. Provisional export data shows exports during April to August 2013 were around 3.4 million tonnes almost equally divided between government and private trade accounts. Unless the government lowers the MEP significantly and allocates more wheat for exports no substantial exports are likely in coming months as wheat from other origins particularly the Black Sea origin are supplied at a discount of \$40 to \$50 over Indian MEP. Due to lack of parity between Indian price and world prices (Figure IV.2.3), private exports of wheat have also slowed in recent months. Currently we forecast MY 2013–14 wheat exports at 5 million tonnes.

Figure IV.2.3: Indian Wholesale Wheat Price vis-à-vis US SRW Wheat Price FOB



Source: US Price - World Bank; Indian Price: Department of Consumer Affairs.
Note: US SRW has typically sells at a premium over Indian wheat. Indian FOB price will be higher than the indicated Delhi wholesale price by around \$40 per tonne on account of transportation cost and other handling charges.

IV.2.5 Stocks down

Following a steep decline in government wheat procurement this marketing year, government wheat stocks have declined, with October 1, 2013 stock at 36.1 million tonnes compared to 43.2 million tonnes a year ago (Figure IV.2.4). This has helped to relieve some pressure on government storage facilities. Stocks are likely to decline to around 18 million tonnes by the end of the 2013–14 marketing year on April 1, 2014, from 24.2 million tonnes on April 1, 2013. The supply demand balances for wheat are summarised in Table IV.2.2.

Figure IV.2.4: Government Wheat Stocks – Actual Vs Buffer Norms (million tonnes)

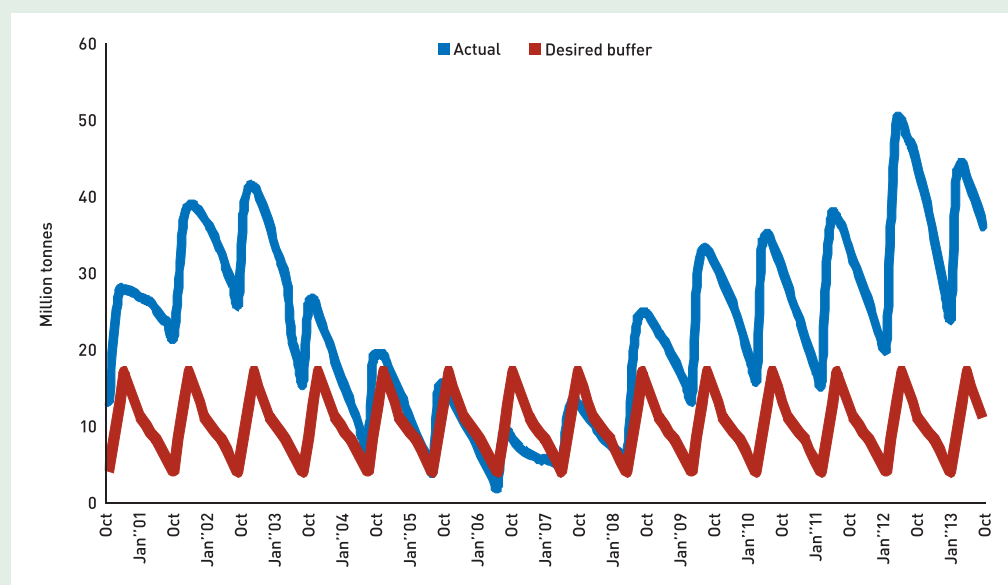


Table IV.2.2: Supply and Demand Balance for Wheat (1000 metric tonnes)

Item	2010-11 Apr-Mar	2011-12 Apr-Mar	2012-13 E Apr-Mar	2013-14F Apr-Mar*
Production	80,800	86,870	94,880	92,460
Beginning Stocks	16,125	15,364	19,952	24,200
Imports	188	2	0	0
Total Supply	97,113	102,236	114,832	116,660
Exports	68	872	6,800	5,000
Food Use	74,920	76,200	78,332	87,660
Seed, Feed, Waste, Other	6,761	5,212	5,500	6,000
Total Use	81,681	81,412	83,832	93,660
Ending Stocks	15,364	19,952	24,200	18,000
Total Distribution	97,113	102,236	114,832	116,660
Stocks to Use Ratio %	19	25	29	20
Govt Wheat Operation				
Beginning Stocks	16,125	15,364	19,952	24,200
Imports	0	0	0	0
Procurement	22,347	28,335	38,148	25,100
Total Availability	38,472	43,699	58,100	49,300
PDS & other Offtake	23,072	24,162	30,140	29,800
Exports	0	100	3,100	1,500
Unaccounted	36	-515	660	0
Total Distribution	23,108	23,747	33,100	31,300
Ending Stocks	15,364	19,952	24,200	18,000

E-Estimate; F - Forecast

Source: Food Corporation of India, Directorate of Economics and Statistics, NCAER Estimate.

Note: Stocks are government stocks. Total use is residual and would include private stocks change.

Total 2013–14 coarse grain production is forecast at around 43.5 million tonnes, including 24.2 million tonnes of maize compared to 40.1 million tonnes in 2012–13 inclusive of 22 million tonnes of maize.

After the Green Revolution, a success story in Indian agriculture has been the spectacular increase in maize production which has increased by 80 per cent in 10 years– between 2001–02 and 2010–11, while most other coarse grain production has remained stagnant or declined

IV.3 Coarse Grains

IV.3.1 Production likely to be higher

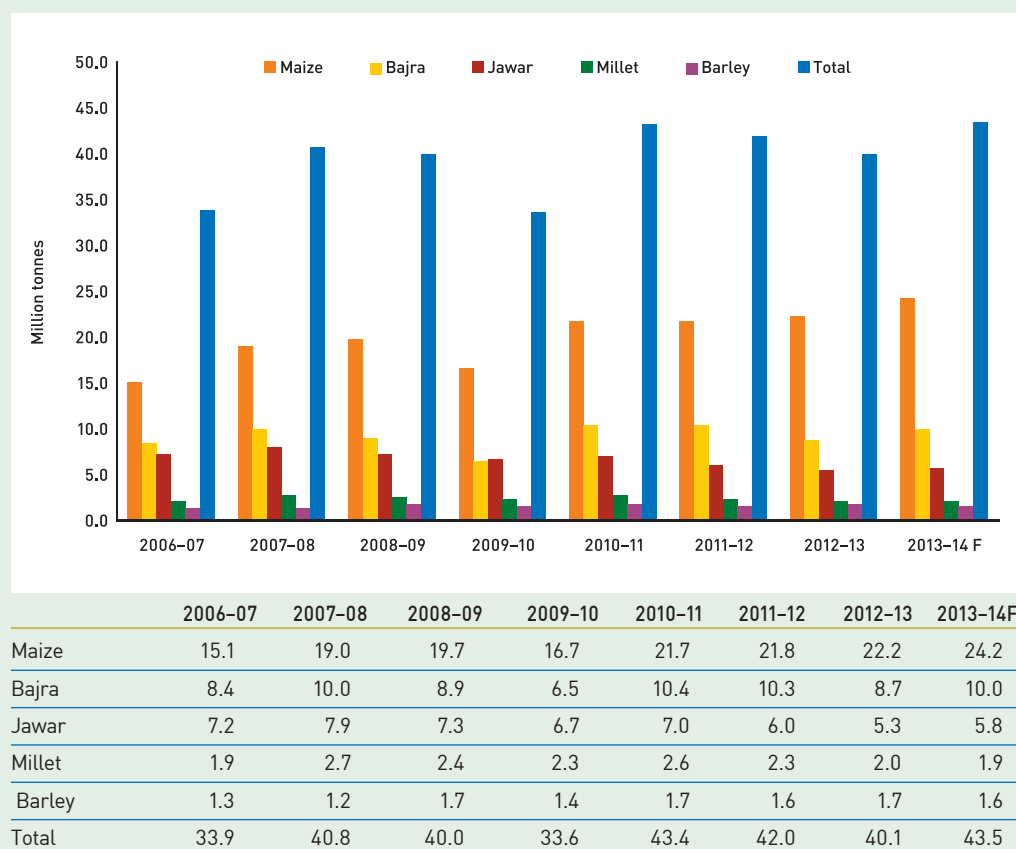
Adequate rainfall in major coarse grain growing regions is likely to result in a record or near record kharif coarse grain production in 2013–14. Although, the government's 1st AE pegs kharif coarse grain production at 31 million tonnes against 29.5 million tonnes in 2012–13, an upward revision is likely on account of the positive impact of favourable rainfall on crop yields. Our analysis using historical data forecasts total kharif coarse grain production at around 34 million tonnes including 17.7 million tonnes of maize. Cyclone Phailin has reportedly caused some damage to maize crop in coastal regions of Andhra Pradesh and Odisha. The late monsoon rains this year should provide a favourable planting condition for rabi coarse grains, which include mostly maize and some jowar and barley. Total 2013–14 coarse grain production is forecast at around 43.5 million tonnes, including 24.2 million tonnes of maize compared to 40.1 million tonnes in 2012–13 inclusive of 22 million tonnes of maize.

Erratic monsoon rains in major coarse growing states of Rajasthan, Gujarat, Maharashtra, and Karnataka last year meant a moderate to severe drought during the early season resulting in a significant decline in 2012–13 kharif coarse grain production, including maize. The decline in kharif maize production was partly offset by higher production in the rabi season. Government's 4th AE places 2012–13 total coarse grain production at 40.1 million tonnes compared to 42.0 million tonnes in 2011–12, with most of the decline confined to kharif season production estimated at 29.5 million tonnes. The 2012–13 coarse grain production by type in million tonnes was: maize – 22.23; bajra – 8.74; jowar – 5.33; ragi – 1.59; and small millet – 0.43.

After the Green Revolution, a success story in Indian agriculture has been the spectacular increase in maize production which has increased by 80 per cent in 10 years– between 2001–02 and 2010–11, while most other coarse grain production has remained stagnant or declined (Figure IV.3.1). A number of maize hybrids have been developed since 2000, which have been widely adopted by farmers with the result that maize productivity attained unprecedented rate of enhancement touching 73 kg/ha/year since then which is 2–3 times higher than the productivity improvement rate witnessed between 1950 and 2000⁵. This has made maize a remunerative crop and its cultivation extended in non-traditional areas in southern India. The maize cultivation in rabi season is also on the rise since 2000 and there has been a 125 per cent increase in area. The overall area increase in maize during the same period is about 33 per cent.

5. <http://dmr.res.in/download/Project%20Director%20Review-2013.pdf>

Figure IV.3.1: Coarse Grain Production Trend



Note: Estimates are for the year as a whole (kharif plus rabi).

IV.3.2 Consumption, trade and price

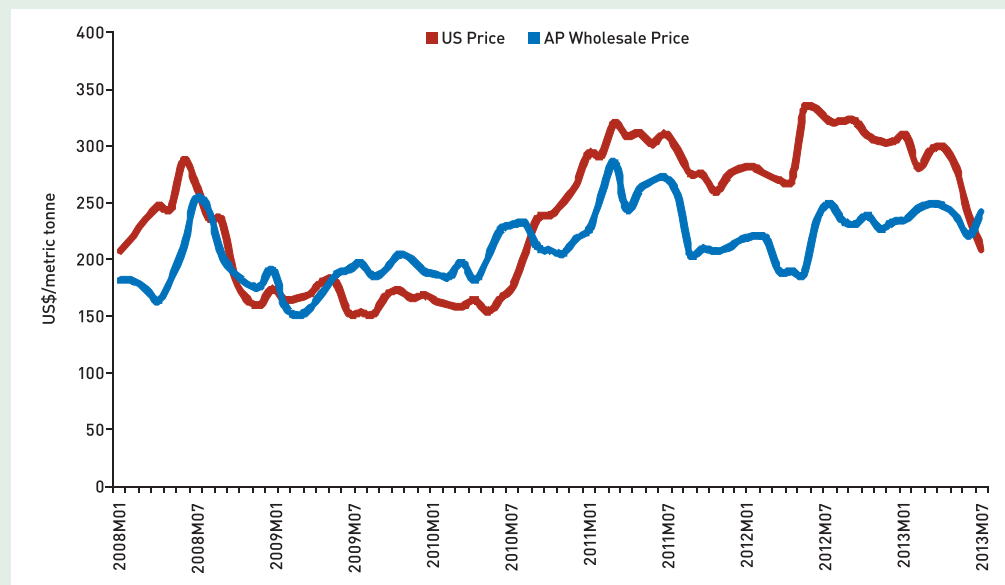
According to industry sources, feed use of maize has increased significantly in recent years reaching around 60 per cent of production. High maize and soybean prices (major feed ingredients) in recent years resulted in high prices for livestock feed contributing to high prices of milk, poultry and meat products. Industrial use of maize mostly for starch is also on the rise, which according to trade sources has reached around 2 million tonnes. The major use of other coarse grains such as jowar and bajra remains as food.

A lower production during the kharif season, a significant increase in the support price for maize and larger exports spurred by lower global production and high international prices kept maize and other coarse grain prices high in 2012-13. The average maize price at the indicative Nizamabad market in September was around Rs 15,925 per tonne compared to Rs 13,572 a year ago. However, with the arrival of the new crop, prices have tended to decline. The MSP for maize for MY 2013-14 was established at Rs 13,100 per tonne compared to Rs 11,750 per tonne for MY 2012-13. With likely larger domestic availability of maize due to higher production and lower exports, prices are likely to remain subdued in MY 2013-14.

With likely larger domestic availability of maize due to higher production and lower exports, prices are likely to remain subdued in MY 2013-14.

Exports are likely to decline significantly in MY 2013–14 due to lower international prices in response to record production.

Figure IV.3.2: Maize Price Comparison US vs India (US\$/tonne)



Maize exports in MY 2012–13 were around 4.8 million tonnes compared with 4.6 million tonnes in MY 2011–12. Exports are likely to decline significantly in MY 2013–14 due to lower international prices in response to record production (Figure IV.3.2). Indian maize is currently out priced in the international markets as Indian corn is being offered at US\$ 270– 275 per tonne FOB Kakinada/Vizag against Ukrainian origin which is being sold around US\$ 235 per tonne CIF South Korea. However, the depreciation of Indian rupee against US\$ and India's geographic proximity to Asian markets should provide some advantage. Currently we forecast MY 2013–14 exports at 3.0 million tonnes. On a fiscal year basis, maize exports in 2012–13 totalled 4.8 million tonnes compared with 3.86 million tonnes in 2011–12. During April to July 2013, about 2 million tonnes of maize were exported. Domestic markets will need to absorb higher supplies.

Table IV.3.1: Demand-Supply Balance Sheet for Maize ('000 tonnes) (Oct–September)

Item	2010–11	2011–12	2012–13	2013–14 F
Opening stocks	200	600	600	550
Production	21,730	21,760	22,230	24,200
Imports	19	3	10	5
Domestic Availability	21,949	22,363	22,840	24,755
Exports	3,526	4,600	4,800	3,000
Domestic Utilisation	17,823	17,163	17,490	20,955
Closing Stocks	600	600	550	800

IV.4 Pulses

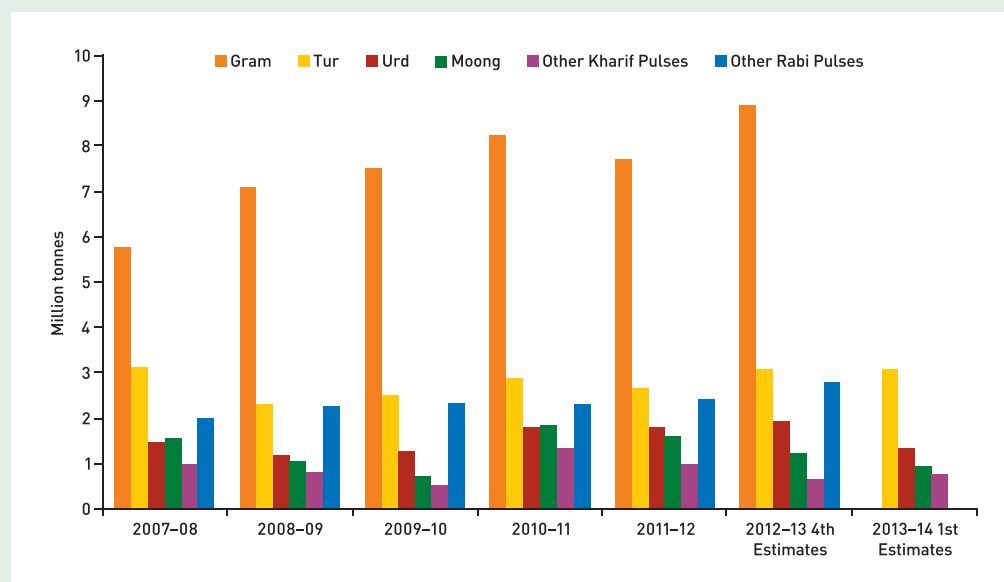
IV.4.1 Production trends

The kharif pulses output in 2013–14 is placed at 6.01 million tonnes, as per the first Advance Estimates by the Agriculture Ministry, which although lower than the government's target of 7 million tonnes was higher than the official 4thAE of 5.91million

tonnes for 2012–13. The outlook for rabi pulse productions looks promising thanks to prolonged monsoon rains in major producing regions. If the rabi 2013–14 production matches last year's 12.5 million tonnes, which appears likely, total 2013–14 pulses output would scale a record of over 18.5 million tonnes.

As per the fourth advance estimates, 2012–13, total pulse production was 18.5 million tonnes, compared with 17.1 million tonnes in 2011–12. Rabi pulses production set a new record of 12.5 million tonnes while kharif pulse production declined marginally to 5.9 million tonnes due to the erratic monsoon rainfall last year. Disaggregated production data show gram production reached a new high of 8.9 million tonnes in 2012–13, up from the previous year's 7.70 million tonnes (Figure IV.4.1) and contributed 48.1 per cent to total pulses production in 2012–13. The share of tur was 16.6 per cent, while other pulses have smaller shares. Figure IV.2 shows the trend in pulse production by season. Gram is mainly a rabi season crop and tur is a kharif crop. Mung and urd are grown in both the seasons but kharif season output is larger than rabi in each case.

Figure IV.4.1: Production Trend of Pulses



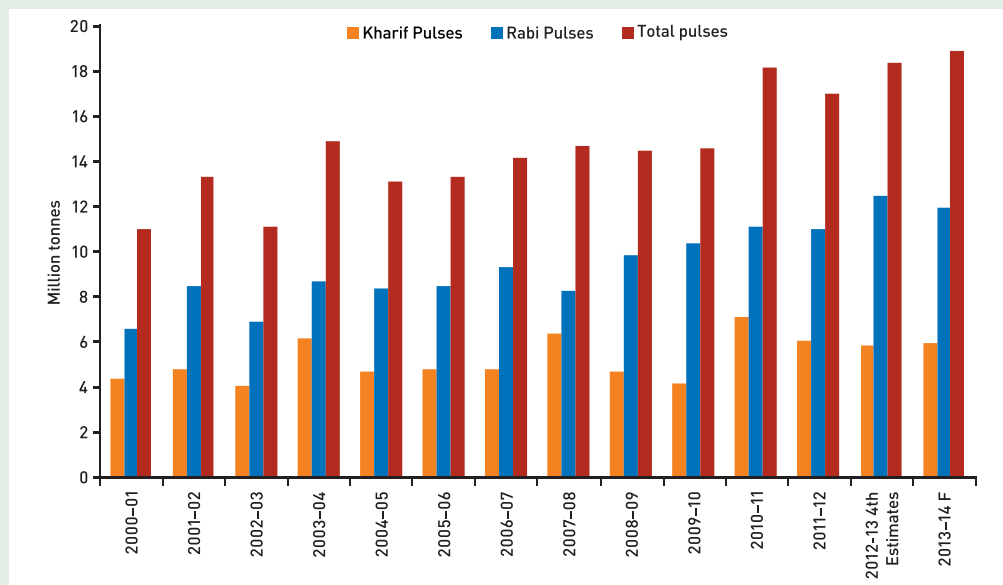
Note: Estimates are for the year as a whole (kharif plus rabi).

The outlook for rabi pulse productions looks promising thanks to prolonged monsoon rains in major producing regions. If the rabi 2013–14 production matches last year's 12.5 million tonnes, which appears likely, total 2013–14 pulses output would scale a record of over 18.5 million tonnes.



The price of pulses as a group measured by the Wholesale Price Index declined by 3.6 per cent in April–September 2013.

Figure IV.4.2: Kharif, Rabi and Total pulses Production Trend



IV.4.2 Consumption

While per capita net pulse availability has improved marginally to around 40 grams per day in recent years due to higher production, there is a need to ensure increasing levels of consumption as pulses remain important source of proteins in the Indian diet. Imports have supplemented domestic production and helped to maintain per capita consumption level.

IV.4.3 Price trends

The price of pulses as a group measured by the Wholesale Price Index declined by 3.6 per cent in April–September 2013 over the same period of 2012, mainly on account of gram (Figure IV.4.3). In the case of tur (pigeon pea), the WPI increased by 7.7 per cent in April–September 2013 over the same period in the previous year, a rate only slightly lower than the 8.8 per cent in 2012–13. There was no significant increase in the MSP for kharif pulses in 2013–14, allowing market forces greater role in determining price.

The WPI of pulses rose sharply in 2012–13 (19.6 per cent) mainly because of the increase in the price of gram (37.4 per cent). Although production of gram increased from 7.7 million tonnes in 2011–12 to 8.88 million tonnes in 2012–13, price rose in the first half of 2012–13 because of the lower output in rabi 2011–12. Although, price rise was lower in the second half than in the first half of 2012–13, it was still at double digit rates. Among other pulses, there was a rising trend in WPI of mung and masur during September 2012 to July 2013 due to lower production (Figure IV.4.4).

Figure IV.4.3: Price Trends in Total Pulses, Gram and Arhar: WPI % Change YOY

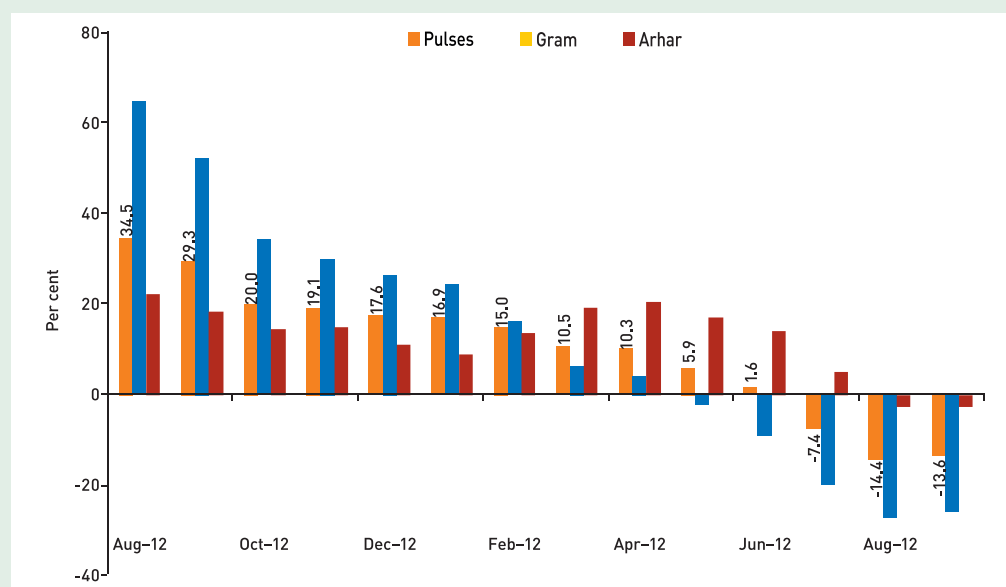
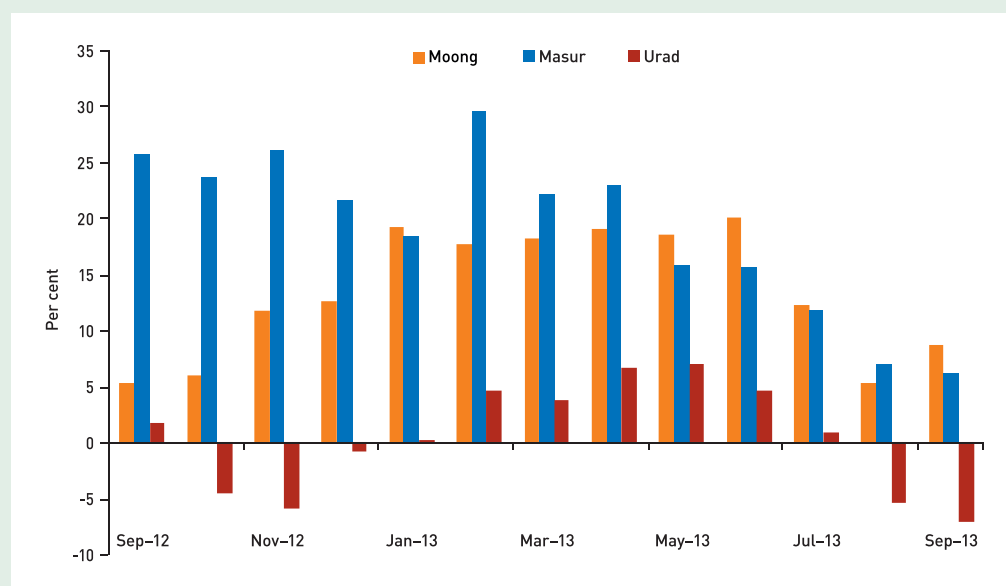
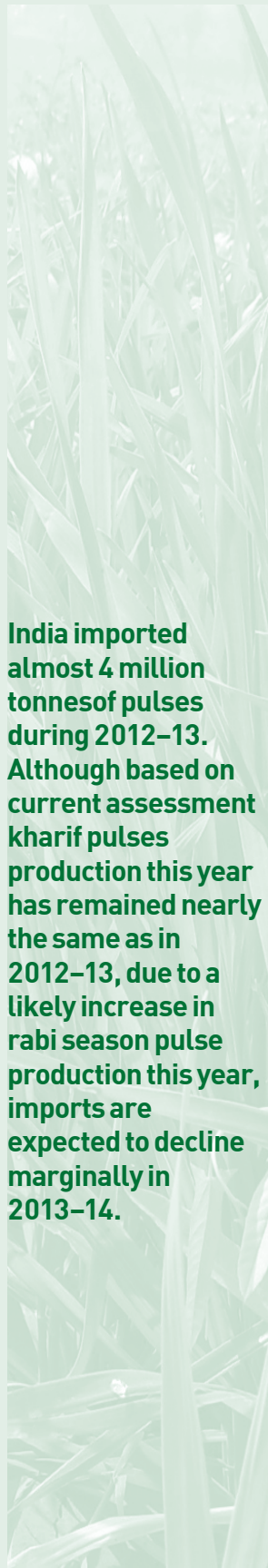


Figure IV.4.4: Price Trends in Moong, Lentil (Masoor) and Urd: WPI % Change YoY



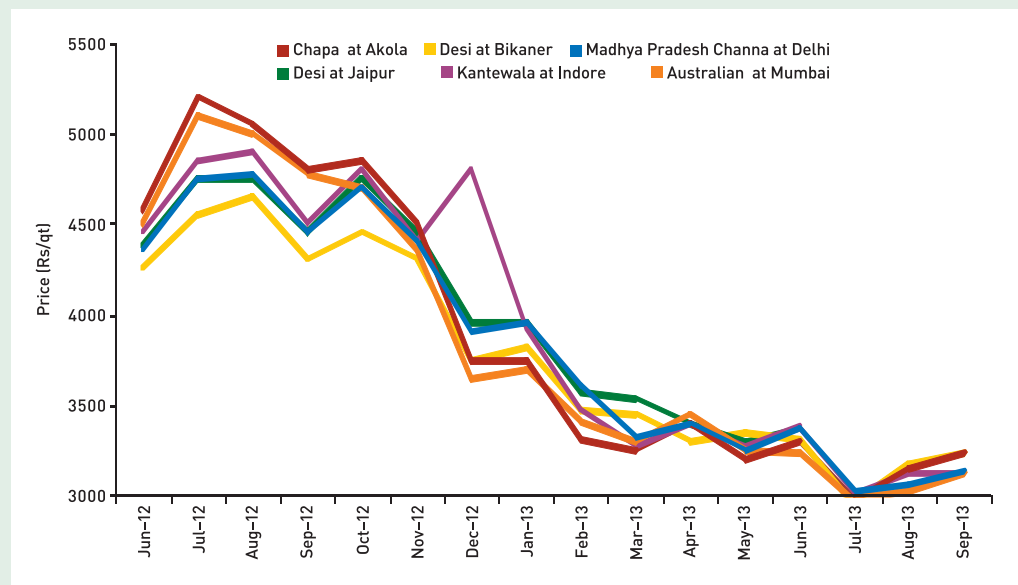
The pattern of wholesale price movement for gram across major markets was fairly uniform (Figure IV.4.5). Wholesale prices began to decline in the second half of 2012–13 in all the selected markets. They stabilised between Rs 3,000 and Rs 3200 by August 2013, close to the MSP of Rs 3,000 per tonne for 2012–13. Favourable production outlook for 2013–14 should help maintain price stability. However, depreciation of rupee against US\$ can have an inflationary impact on the price of pulses. In 2012–13, rupee depreciated by 13.4 per cent over the average level of the previous year, with much of the depreciation taking place in the first half of that year, aggravating the impact of lower rabi harvest of 2012. In the current year, after the volatility in August and September, the exchange rate has stabilised although rupee has depreciated by 8 per cent during April–September 2013 over the same period in the previous year.

Favourable production outlook for 2013–14 should help maintain price stability. However, depreciation of rupee against US\$ can have an inflationary impact on the price of pulses.



India imported almost 4 million tonnes of pulses during 2012–13. Although based on current assessment kharif pulses production this year has remained nearly the same as in 2012–13, due to a likely increase in rabi season pulse production this year, imports are expected to decline marginally in 2013–14.

Figure IV.4.5: Gram Prices in Different Markets

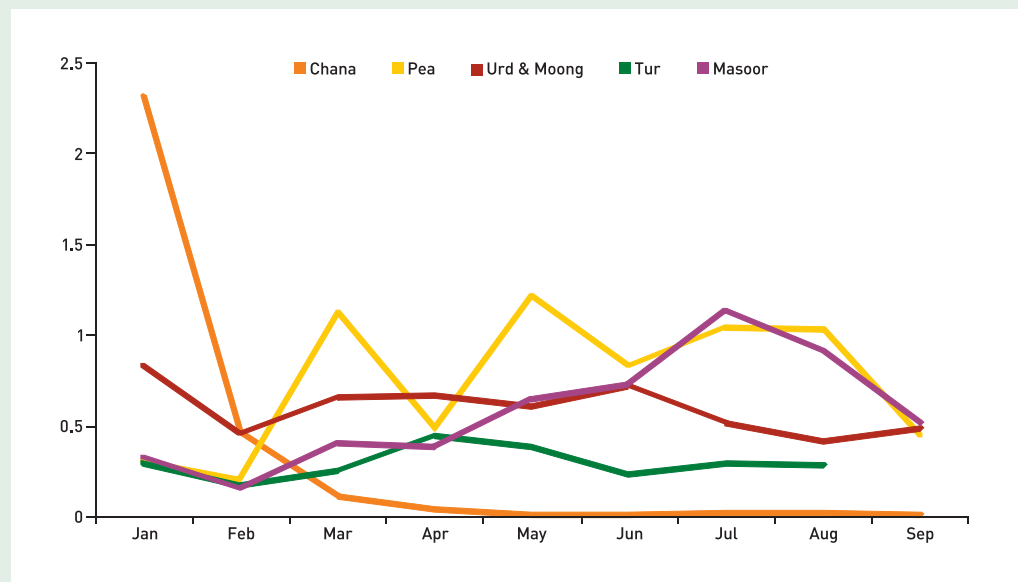


IV.4.4 Trade

India imported almost 4 million tonnes of pulses during 2012–13. Although, based on current assessment kharif pulses production this year has remained nearly the same as in 2012–13, due to a likely increase in rabi season pulse production this year, imports are expected to decline marginally in 2013–14.

From Figure IV.4.6, it is seen that import of pulses in 2013 has shown a decline in September. Gram imports were the highest in January, but became negligible thereafter as domestic production was at a record level. Peas imports are seen to be fluctuating while masoor imports increased till July 2013. Overall, import requirements may be of the order of 3.8 million tonnes in the current year.

Figure IV.4.6: Month-wise Pulse Import during 2013



Only small quantities of exports of pulses are taking place from India both because of restrictions on exports and the high demand situation in the domestic market. The supply-demand balance sheet for pulses is provided in Table IV.4.1.

Table IV.4.1: Demand and Supply Balance for Pulses ('000 tonnes): Total Pulses

Item	2010-11	2011-12	2012-13	2013-14
Production	18,240	17,090	18,500	18,800
Imports	2,780	3,500	4,012	3,800
Total supply	21,020	20,590	22,512	22,600
Total Export	209	175	203	200
Domestic Use	20,811	20,415	21,809	22,400
Total utilisation	21,020	20,590	22,012	22,400
Per cent imports to production	15.24	20.48	21.69	20.21

IV.5 Edible Oilseeds and Oils

IV.5.1 Production up in 2013-14

The government's first AE of 2013-14 agricultural production pegs total kharif oilseed production at 24 million tonnes, about 3 million tonnes more than the 4th AE for 2012-13 of around 21 million tonnes. Most of the increase is in groundnut in which production is estimated at 5.6 million tonnes and soybeans estimated at a record 15.7 million tonnes. The production gain is one million tonne and 2.5 million tonnes, respectively, in groundnut and soybean, over 2012-13 production. However, trade sources are less optimistic about the 2013-14 soybean production due to reported significant damage caused by continuous heavy rains in major growing regions. The Soybean Processors Association of India (SOPA) in late October revised its production estimate downward to 12.2 million tonnes from earlier estimate of around 13 million tonnes. Our 2013-14 forecast of major kharif oilseed production using statistical analysis is 14.9-16.4 million tonnes of soybeans and 5.5-5.9 million tonnes of groundnut.

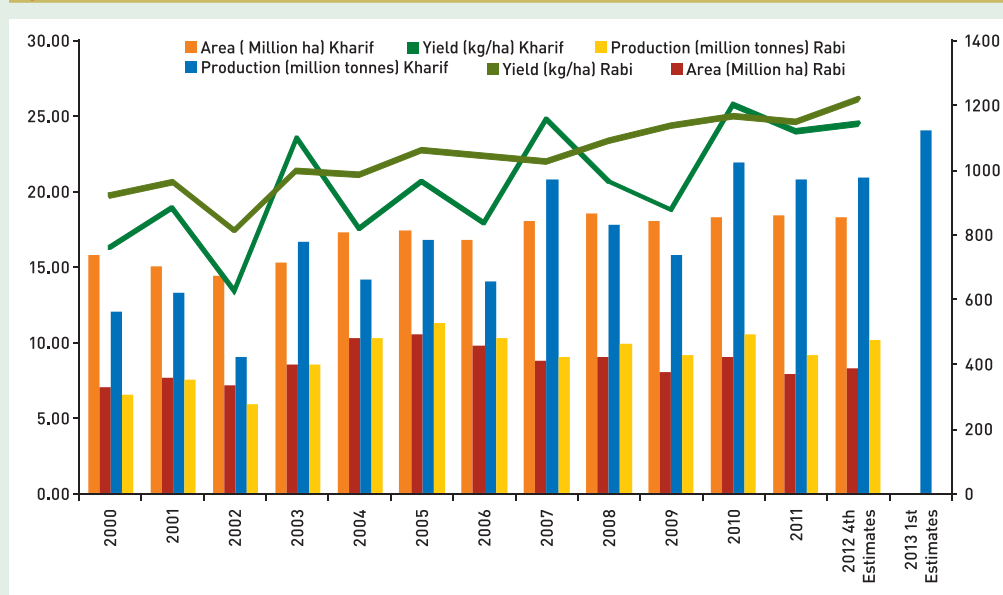
Outlook for rabi oilseed crops, which include mostly mustard/rapeseed appears promising. Late rains in major rapeseed growing states of Rajasthan, Madhya Pradesh and Gujarat provided a favourable planting condition which should result in increased planting. The MSP for rapeseed/mustard for MY 2014-15 was increased by Rs 50 per quintal to Rs 3050, a marginal increase compared to the previous two years when the MSP was increased by Rs 650 per quintal in MY 2012-13 and Rs 500 per quintal in MY 2013-14. Assuming normal growing conditions 2013-14 (MY 2014-15) rapeseed production is forecast at close to the 2011-12 record production of 8 million tonnes. Outlook for the mostly irrigated rabi groundnut production also appears promising due to availability of irrigation water in major growing regions of Andhra Pradesh and Gujarat and the government production target of 2 million tonnes is likely to be achieved.

The government's first AE of 2013-14 agricultural production pegs total kharif oilseed production at 24 million tonnes, about 3 million tonnes more than the 4th AE for 2012-13 of around 21 million tonnes.



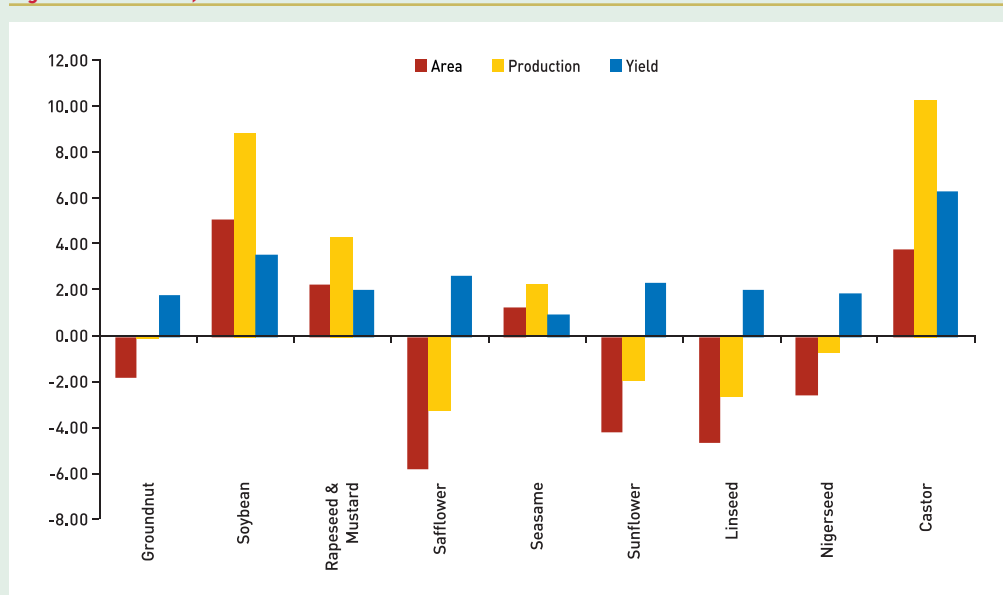
During the decade 2000–2001 to 2012–13 soybean area increased by 5.13 per cent, rapeseed & mustard by 2.26 per cent and sesame by 1.30 per cent, while area stagnated or declined in the case of groundnut, safflower, sunflower, linseed and nigerseed

Figure IV.5.1: All India Season-wise Area, Production and Yield of Nine Oilseeds



Driven by soybeans, the kharif oilseed production has expanded faster in recent years as compared to the rabi oilseed production (Figure IV.5.1). During the decade 2000–2001 to 2012–13 soybean area increased by 5.13 per cent, rapeseed & mustard by 2.26 per cent and sesame by 1.30 per cent, while area stagnated or declined in the case of groundnut, safflower, sunflower, linseed and nigerseed (Figure IV.5.2).

Figure IV.5.2: Area, Production and Yield Growth Rates of Nine Oilseeds



There are large regional variations in area, production and productivity of oilseeds. Haryana, Madhya Pradesh, Maharashtra, Rajasthan and West Bengal increased their oilseeds production both through area expansion and productivity improvement. Gujarat increased oilseeds production mainly through productivity improvement. In Punjab, oilseeds production declined mainly due to a decline in area. The high variability in oilseed production is due to their cultivation predominantly under low and uncertain rainfall

situations. Only 28 per cent of area under oilseeds is irrigated that too mostly in the rabi season resulting in large year-to-year variability in production. The productivity of all oilseeds crops in India is much lower than world average.

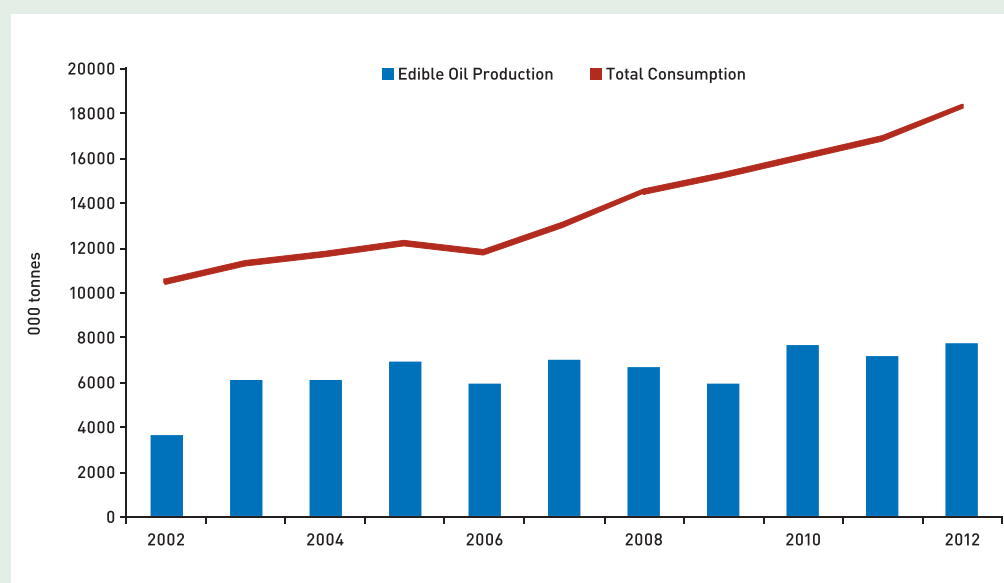
Trade sources estimate MY 2012–13 total edible oil production at 7.6 million tonnes, which included 2.34 million tonnes of rapeseed oil, 1.65 million tonnes of soybean oil, about 300,000 tonnes of groundnut oil, 1.1 million tonnes of cotton seed oil, and various other oils such as rice bran oil, sunflower seed oil, etc. Kharif season edible oil production in 2013–14 is estimated by trade sources at 5.8 million tonnes and assuming an increase in rabi oil production also, total 2013–14 oil production is forecast at around 9.0 million tonnes 18.4 per cent increase over the previous year.

The National Mission on Oil seeds and Oil Palm under the 12th Five-Year Plan combines the existing integrated scheme for oilseeds, pulses, oil palm and maize, the central sector scheme on tree-borne oilseeds and Oil Palm Area Expansion (OPAE) program. This program envisages to bring an additional 50,000 hectares under oil palm cultivation. Andhra Pradesh is leading the expansion drive, followed by Tamil Nadu, Karnataka, Odisha, Gujarat, Mizoram, Maharashtra and Chhattisgarh.

IV.5.2 Consumption and price

With growing population, changing demographic pattern and rising per capita income, the per capita consumption of edible oils has increased significantly over the years (Figure IV.5.3) and is projected to increase further at the same pace over the medium-term. India's per capita edible oil consumption at 14.1 kg for 2012/13 still remains far below the world average per capita consumption of 21.6 kg. During the period 2001–2012, edible oil production grew at the rate of 3.97 per cent per year and consumption increased at a 4.77 per cent per year. Edible vegetable oil consumption is expected to increase to 18–19 million tonnes in 2013–14 following the decadal pattern of growth.

Figure IV.5.3: Edible Oil Production and Consumption ('000 tonnes)



The WPI of oilseeds rose at a high rate in 2012 peaking at around 31 per cent in November 2012 before showing a declining trend upto July 2013. In August and September 2013 the YoY price change became negative (Figure IV.5.4). The YoY change

Kharif season edible oil production in 2013–14 is estimated by trade sources at 5.8 million tonnes and assuming an increase in rabi oil production also, total 2013–14 oil production is forecast at around 9.0 million tonnes 18.4 per cent increase over the previous year.

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in rapeseed and mustard oil measured by WPI declined from 23.6 per cent in April 2012 to 0.5 per cent in March 2013 and further to -3.0 per cent in September 2013. The YoY change in palm oil price declined from 11.8 per cent in April 2012 to -7.2 per cent in April 2013 and further -1.3 per cent in September 2013. This decline is mainly due to a significant increase of rapeseed and mustard oil production and lower international prices for palm oil (Figure IV.5.5). Oilseed and vegetable oil prices are likely to stabilise or decline further in coming months due to a likely large rapeseed/ mustard crop and further softening international prices for palm oil.

Figure IV.5.4: Oilseed and Vegetable Oil Price Inflation: % YoY, WPI

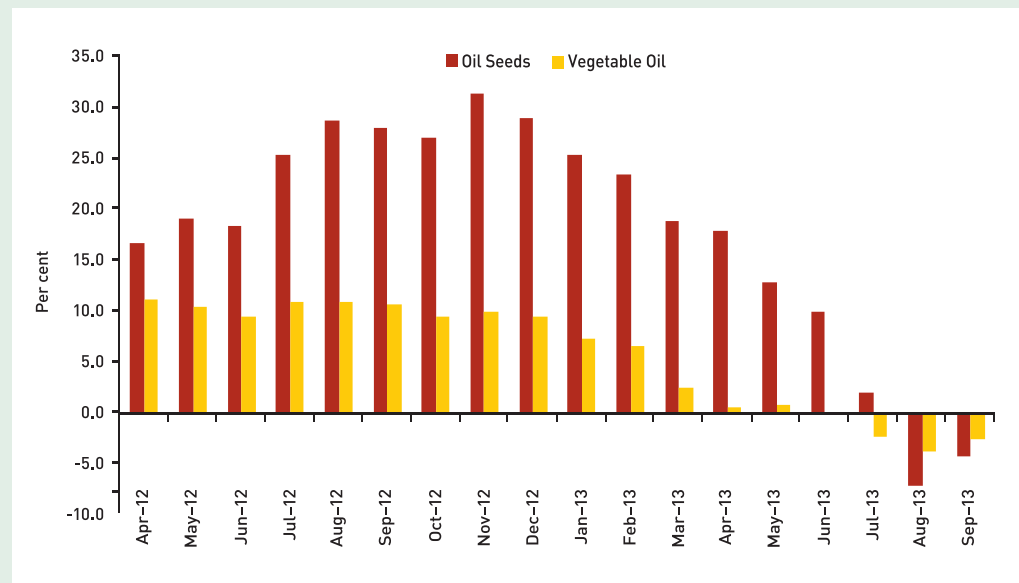
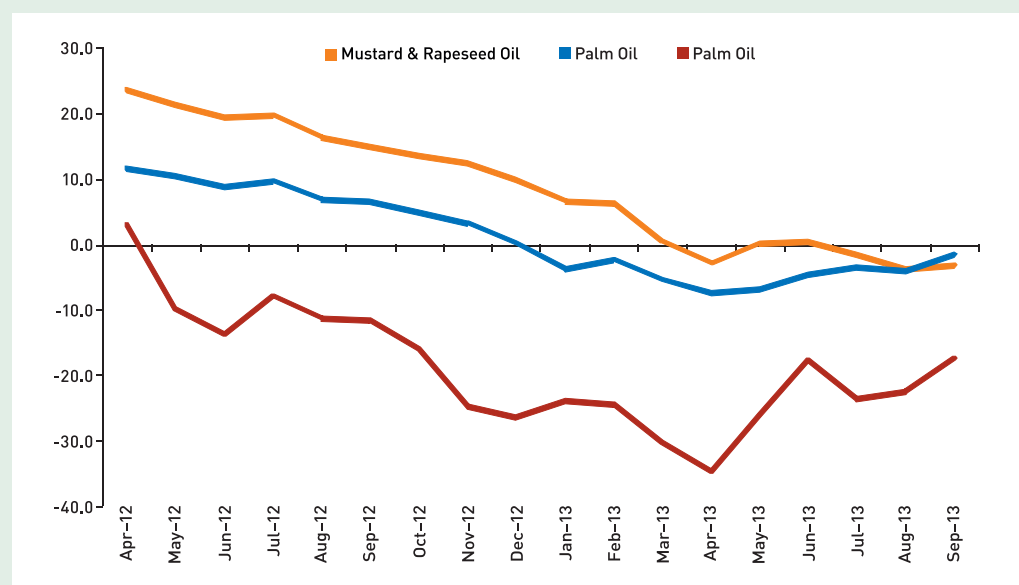


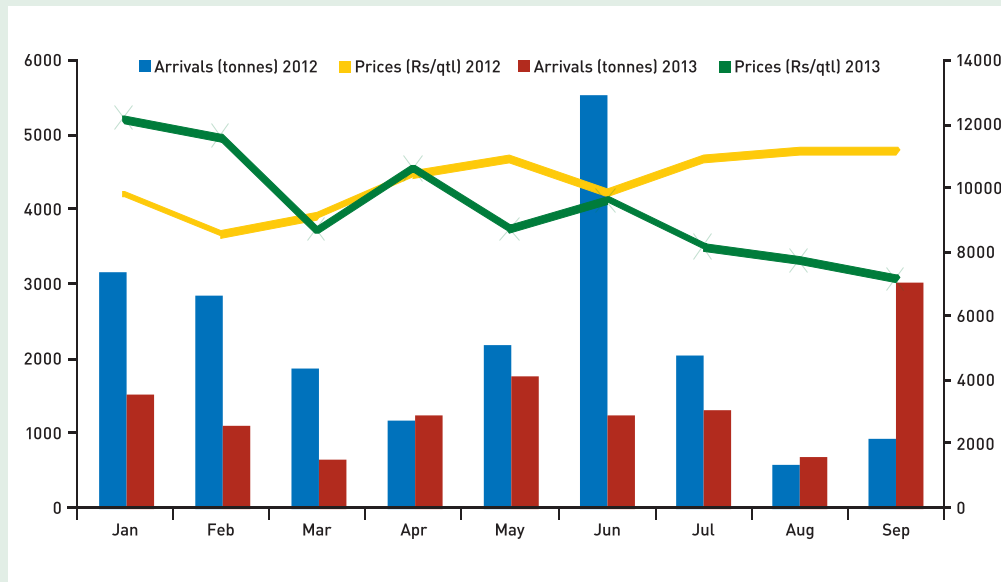
Figure IV.5.5: Wholesale Price Index of Rapeseed and Mustard, Palm Oil and International Price of Palm Oil: % YoY



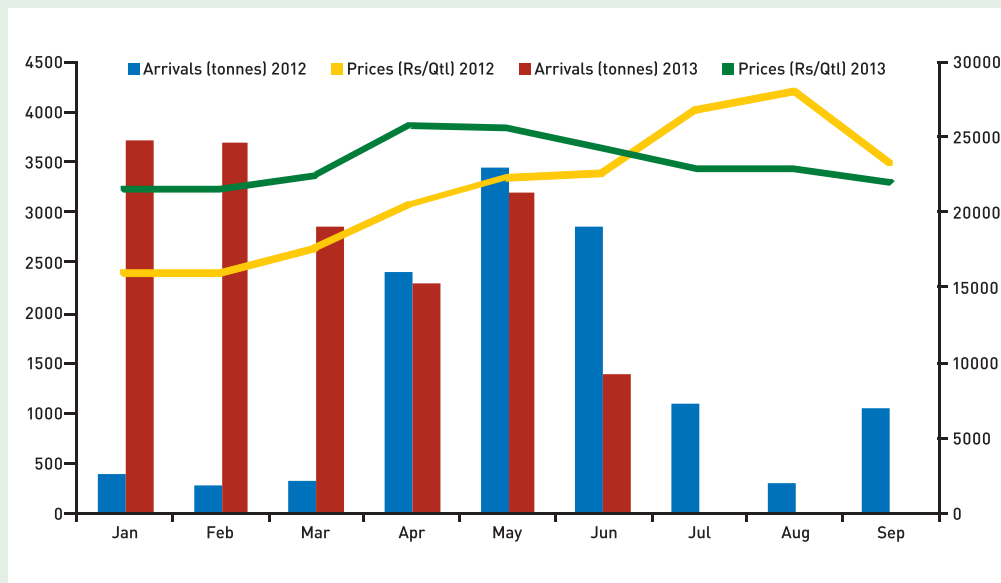
Note: Palm oil* = International price of palm oil (Malaysian Futures, US\$/metric tonne)

The market arrivals and prices for the years 2012 and 2013 of important oilseeds in some major markets are illustrated in Figure IV.5.6. The arrivals of groundnut in Rajkot, a major groundnut producing region in Gujarat has increased resulting in a decline in prices. In case of soybean, arrivals have increased only in the Kota market of Rajasthan while prices are seen to be declining in the major markets. There have been reports of weak arrivals in markets in MP and Rajasthan because of the rains in October which may have affected harvesting and quality of the produce.

Figure IV.5.6: Market Arrivals and Prices of Groundnut in Gondal Market in Rajkot District, Gujarat

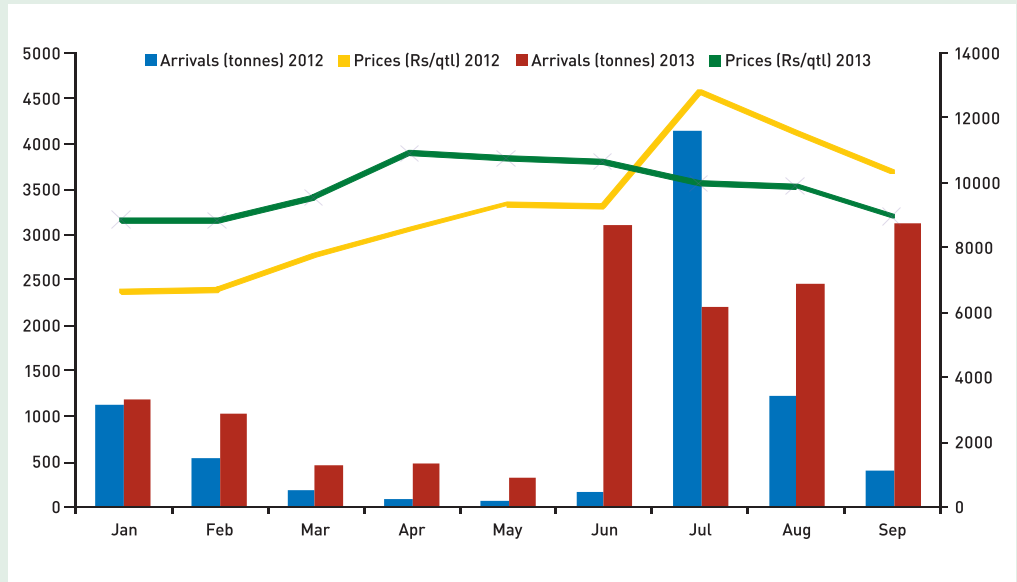


Arrival and Prices of Soybean in Indore Market

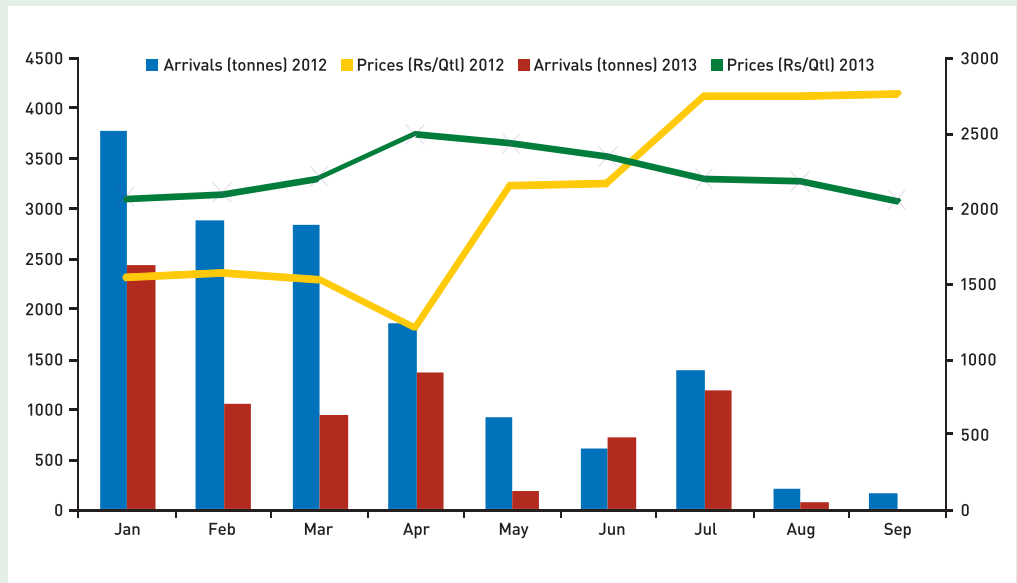




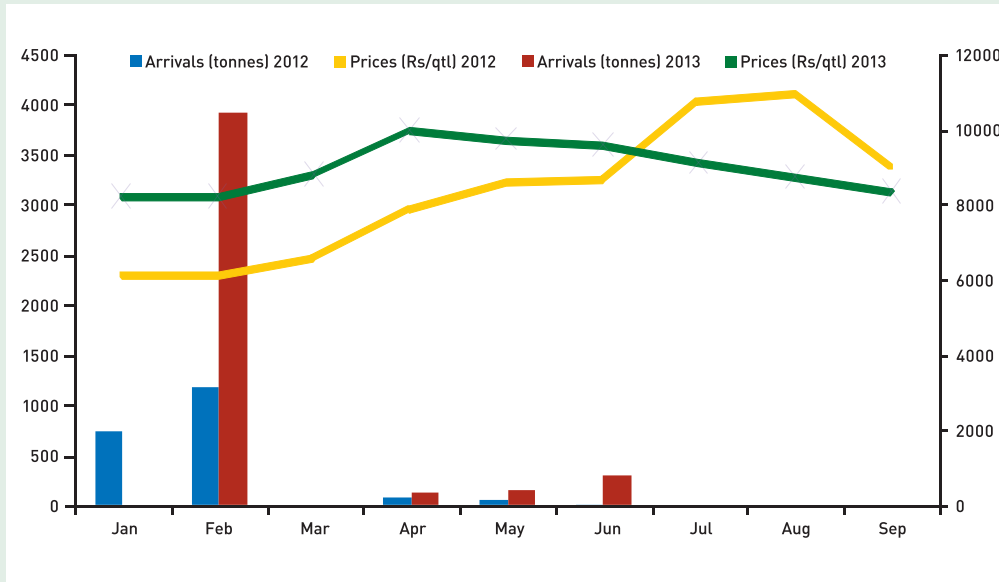
Arrival and Prices of Soybean in Kota Market



Arrival and Prices of Soybean in Nagpur Market



Arrival and Prices of Soybean in Wardha Market

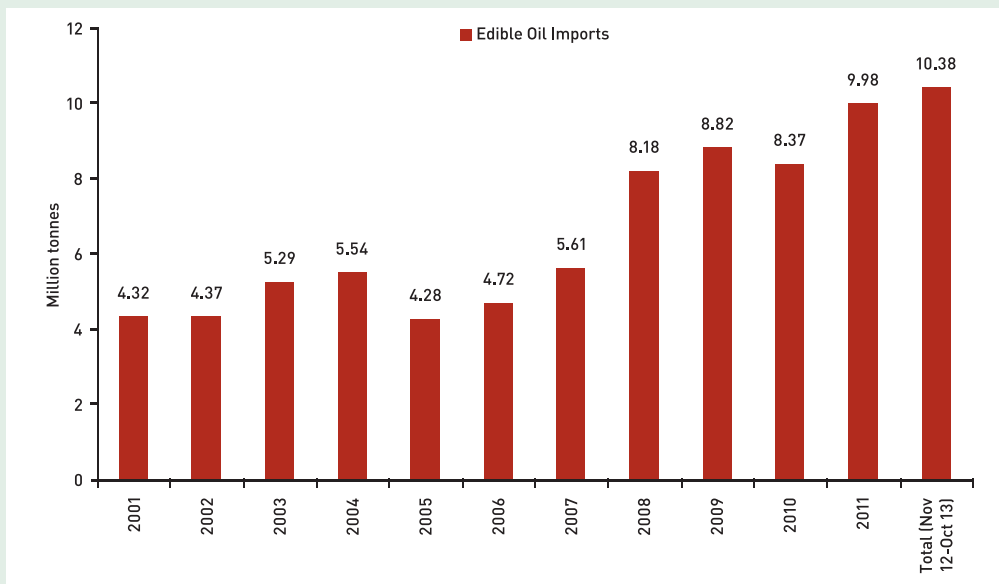


IV.5.3 Trade

India is the world's largest importer of edible vegetable oil, followed by China and the EU-27. Due to the widening gap between production and consumption, imports have risen significantly in recent years reaching around 10 million tonnes in 2011–12. Between November 2012 and October 2013 imports totalled 10.38 million tonnes (Figure IV.5.7). Palm oil and products with a share of around 78 per cent of total oil imports remained the largest imported edible oil because of its lower price vis-a-vis other oils, followed by soybean oil and sunflower seed oil (Figure IV.5.8).

Between November 2012 and October 2013 imports totalled 10.38 million tonnes

Figure IV.5.7: Total Imports of Edible Oils (November–October)

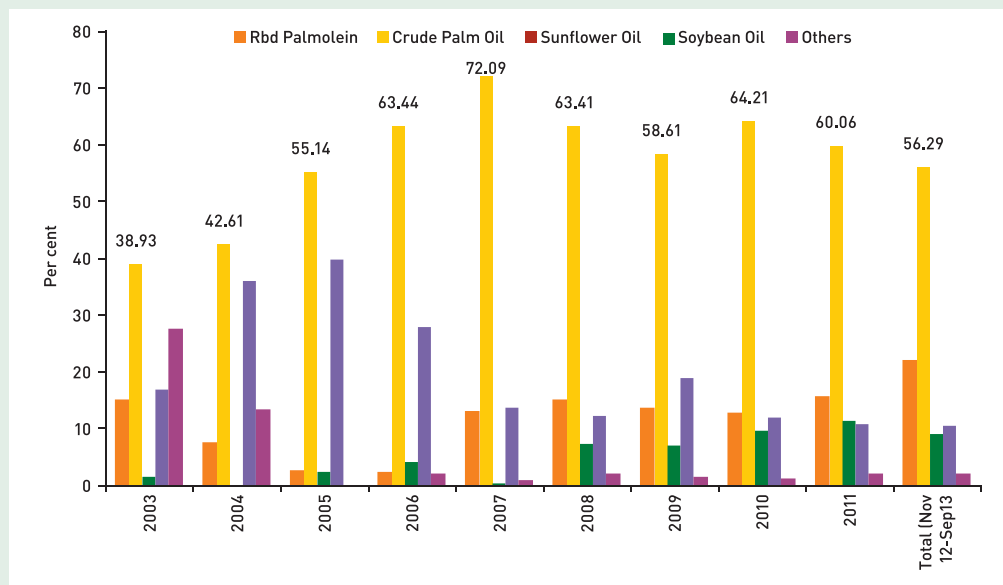


Source: <http://www.seaofindia.com>



All the major cane producing states registered decline in area planted and also production in 2012–13. Production declined by as much as 30 per cent in Maharashtra in 2012–13 over the previous year.

Figure IV.5.8: Share of Different Oils in Total Imports



Source: <http://www.seaofindia.com>

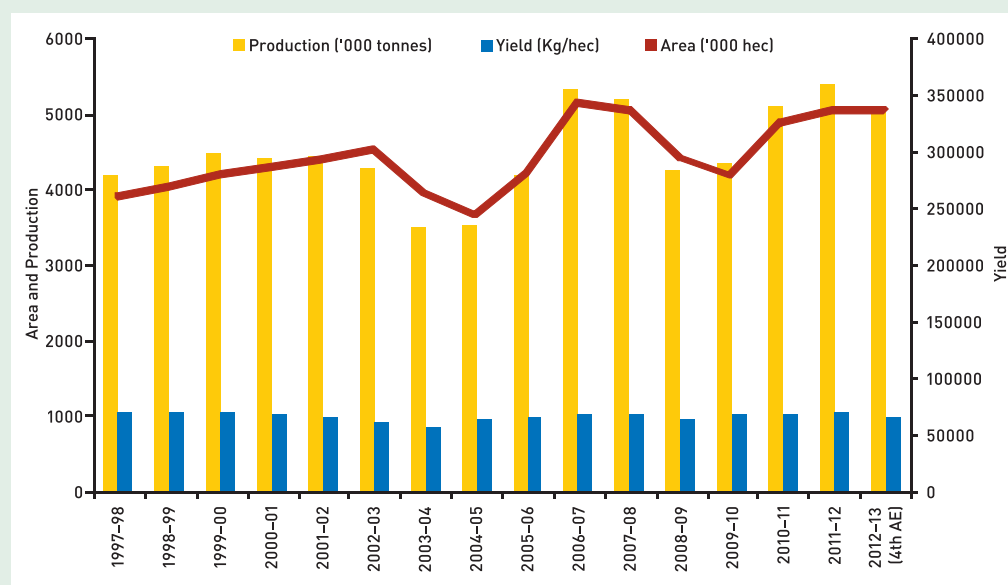
IV.6 Sugarcane & Sugar

IV.6.1 Production trends and patterns

Sugarcane output for the marketing year October–September declined in 2012–13 by 6.1 per cent over the production level in 2011–12. The decline occurred despite the higher Fair and Remunerative Price (FRP) set by the Commission on Agricultural Costs and Prices from Rs 140 per quintal in 2011–12 to Rs 170 per quintal in 2012–13. In 2013–14, the FRP for cane was increased further to Rs 210 per quintal. The State Advised Cane prices (SAP), effective for the produce in different states were also increased in 2012–13 from their levels in earlier years.

Besides the cyclical downturn that may have set in leading to a decline in crop output, deficient rainfall in some of the major sugarcane producing states of Maharashtra, Karnataka and Tamil Nadu has also been a contributing factor. Although, sugarcane is essentially an irrigated crop, significant deficiency of rains in the monsoon season can adversely affect planting and production. All the major cane producing states registered decline in area planted and also production in 2012–13. Production declined by as much as 30 per cent in Maharashtra in 2012–13 over the previous year (Table IV.6.1).

Figure IV.6.1: Area, Production and Yield of Sugarcane



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Note: Data for 2012-13 is the Fourth Advance Estimates of the Ministry of Agriculture.

Table IV.6.1: State-wise Area, Production and Yields of Sugarcane (2011-12 and 2012-13)

States/ region	Area ('000 ha)		Production ('000 tonnes)		Growth rate (%YOY)	
	2011-12	2012-13 (4th AE)	2011-12	2012-13 (4th AE)	Area	Production
	Andhra Pradesh	204	196	16686	15680	-3.9
Gujarat	202	185	12750	13350	-8.4	4.7
Karnataka	430	425	38808	35732	-1.2	-7.9
Maharashtra	1022	937	86733	62175	-8.3	-28.3
Tamil Nadu	346	383	38576	35188	10.7	-8.8
UP	2162	2212	128819	134851	2.3	4.7
Other states	671	726	38665	41987	8.2	8.6
India	5038	5064	361037	338963	0.5	-6.1

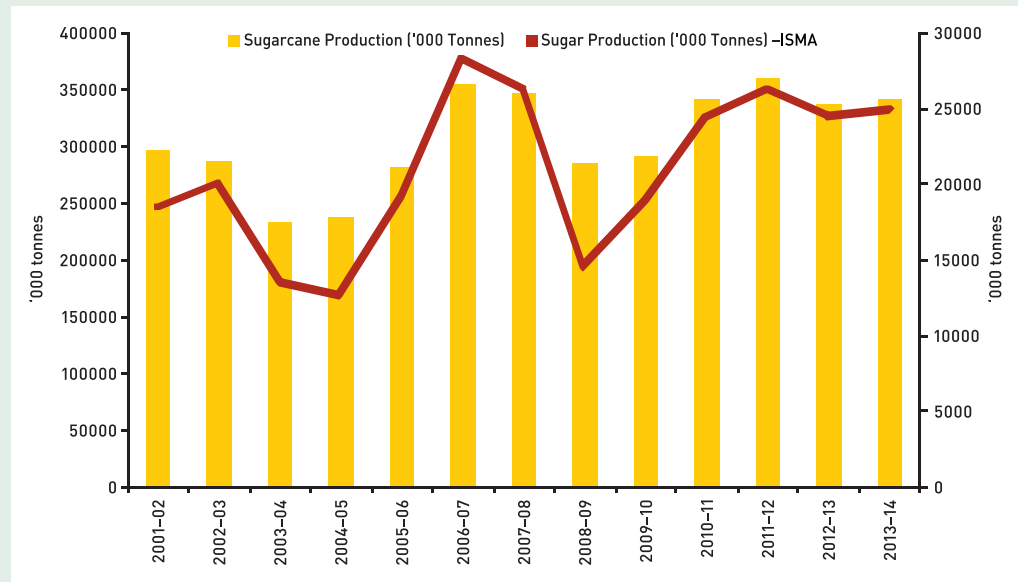
Source: Directorate of Economics and Statistics .

Both Sugar and Cane production follow the same pattern (Figure IV.6.2). Sugar production in India grew at a trend rate of 3.8 per cent per annum between 2001-02 and 2012-13. In 2012-13 it declined from 26.34 million tonnes in 2011-12 to 24.52 million tonnes.



Globally, there has been a situation of excess supplies leading to declining prices. World production of sugar in 2013–14 has been estimated by FAO to be 180 million tonnes as compared to 175.2 million tonnes in the previous year. International price of raw sugar declined from 416 USD/Tonne to 388.01 USD/Tonne in the first five months of 2013.

Figure IV.6.2: Sugarcane and Sugar Production in India



Source: Directorate of Economics and Statistics and Indian Sugar Mills Association.
Note: Sugar production of 2012-13 - ISMA estimate.

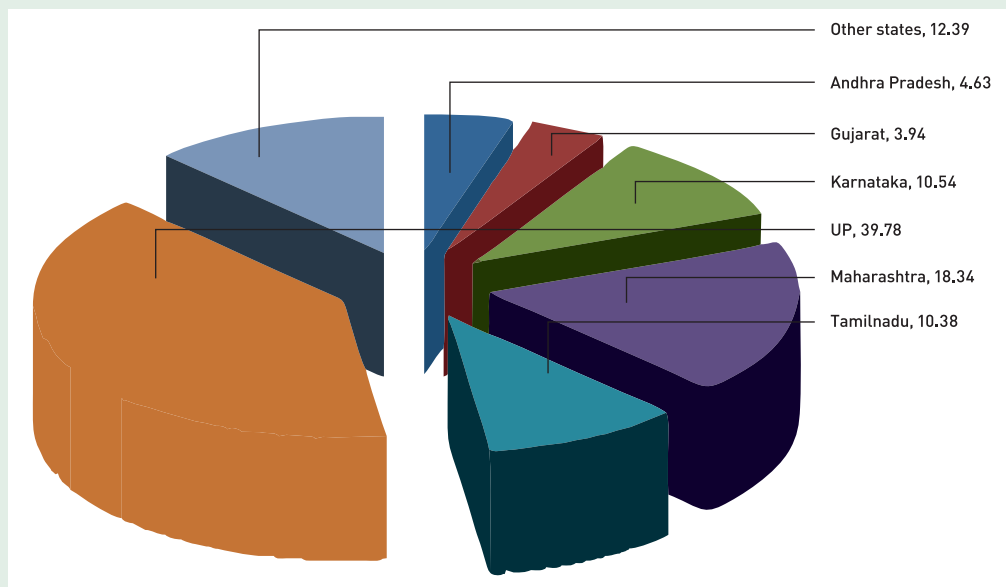
The recent reforms of the sugar sector through which restrictions on the sale of sugar were removed may have some positive impact on new investments in the sector in the longer term.

Globally, there has been a situation of excess supplies leading to declining prices. World production of sugar in 2013–14 has been estimated by FAO to be 180 million tonnes as compared to 175.2 million tonnes in the previous year. International price of raw sugar declined from 416 USD/Tonne to 388.01 USD/Tonne in the first five months of 2013 making Indian exports less competitive and imports attractive (Food Outlook FAO, June 2013)⁶. The sugar sector illustrates the challenge in securing international competitiveness when raw material prices are high.

Uttar Pradesh, Maharashtra, Karnataka and Tamil Nadu account for nearly 80 per cent of sugarcane production in the country (Figure IV.6.3). Among the major sugarcane producing states Maharashtra, Tamil Nadu, Karnataka and Bihar have continued to register increases in area under the crop. There has been decline in the area and production of sugarcane in Andhra Pradesh. There has been no significant increase in yield per hectare in the recent years. The trend growth in yield for the country during the period of 2000–01 to 2012–13 is less than 1 per cent per year (Figure IV.6.4).

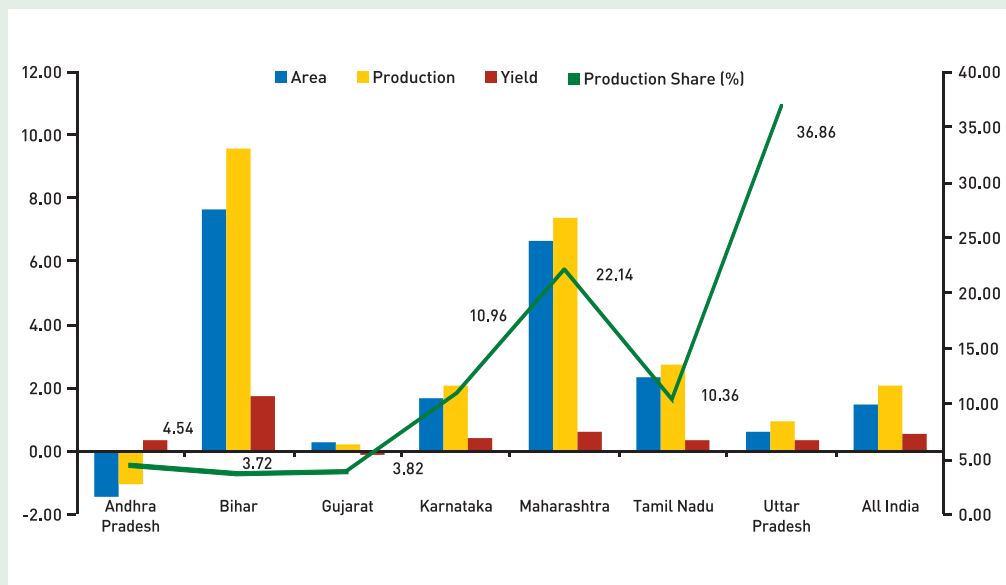
6. <http://www.fao.org/docrep/018/a1999e/a1999e.pdf>

Figure IV.6.3: Contribution of Major States to Sugarcane Production in 2012-13: % Shares



Source: Directorate of Economics and Statistics.

Figure IV.6.4: Average Annual Growth Rates (%) of Area, Production and Yield of Sugarcane between 2000-01 to 2012-13 and Share of States in Production during TE 2012-13



Source: Directorate of Economics and Statistics.

Note: Per cent share in production indicated as a line graph with data tables.



Sugar price is sensitive to the production of sugarcane and supply of sugar. The WPI of Sugar showed steep rise during 2008–09, a year in which the cane production also dropped sharply.

IV.6.2 Trade

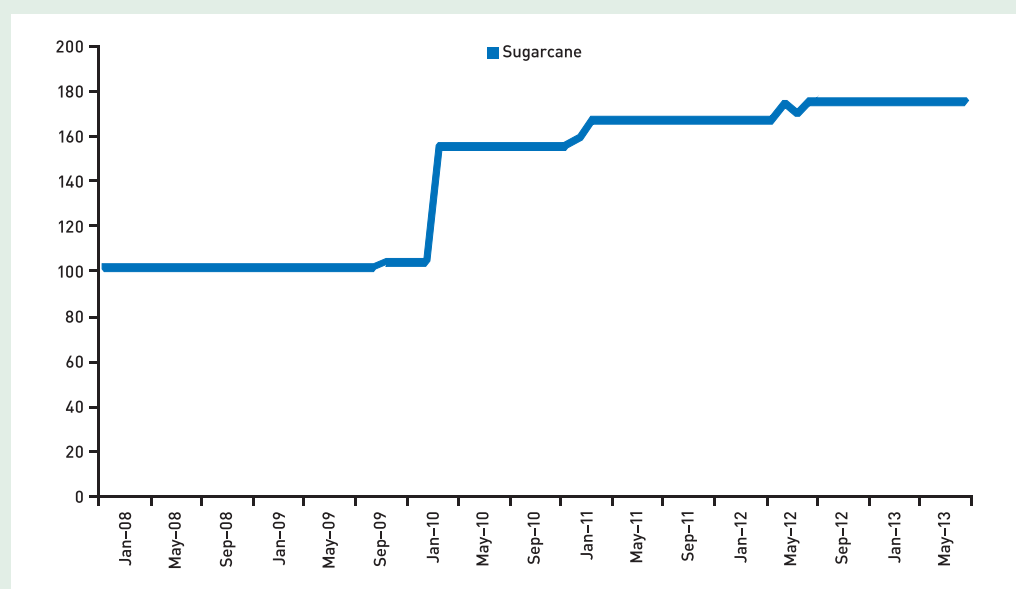
India has not been a major exporter of sugar globally in recent years with its share of world exports being less than 0.5 per cent. Brazil has a share of close to 60 per cent in world exports. As regards imports, Republic of Korea, Bangladesh and Russian Federation were the top importers with shares of about 10 per cent each. India has imported sugar occasionally. Due to lower world prices along with low import duty as well as high domestic prices, Indian millers imported about 1.5 million tonnes of sugar in 2012–13. But due to buildup of significant stocks there were also exports of about 1.5-2 million tonnes⁷.

IV.6.3 Prices

In the recent five year period, there was a sharp increase in the WPI for sugarcane in March 2010 following the increase in support price for 2009–10 crop.⁸ Thereafter, small increases were seen each year as the support prices were announced for the fresh crop.

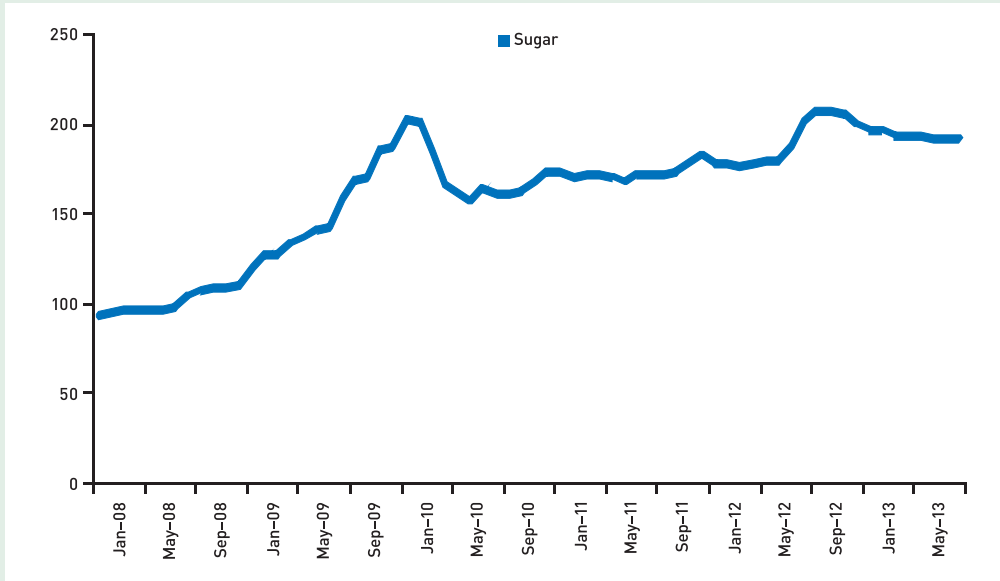
Sugar price is sensitive to the production of sugarcane and supply of sugar. The WPI of Sugar showed steep rise during 2008–09, a year in which the cane production also dropped sharply. Following a production recovery in the next year, prices declined and then resumed a gradual increasing trend. Prices have again declined from mid-2012, despite a drop in production because of excessive stocks and the declining international prices (Figure IV.6.5).

Figure IV.6.5: WPI Sugarcane and Sugar



7. <http://www.thehindubusinessline.com/industry-and-economy/agri-biz/india-may-remain-net-sugar-exporter-in-201213/article3349872.ece>

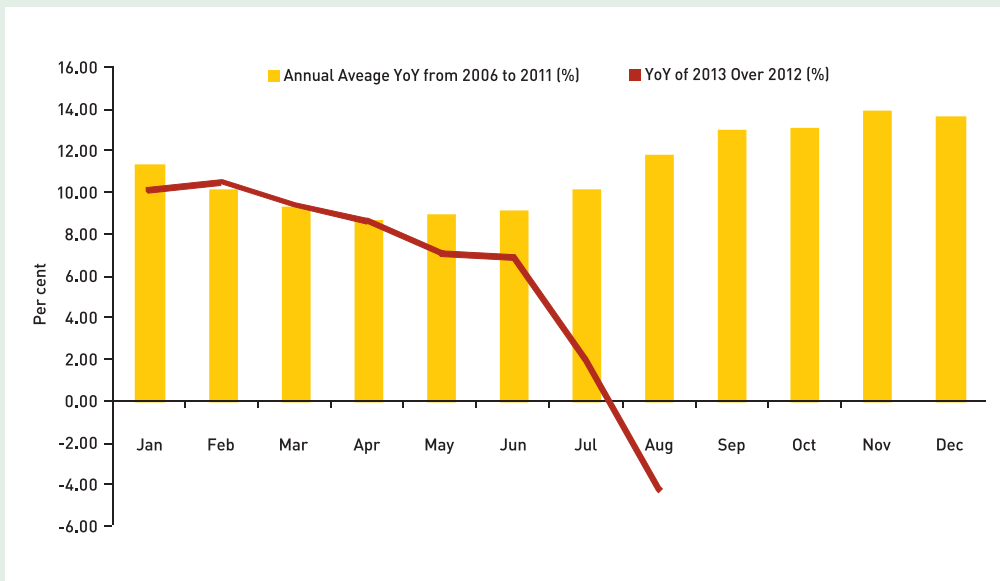
8. Fair and Remunerative Price.



Source: Office of Economic Adviser, Govt. of India.

The average monthly pattern of year on year changes in WPI of sugar points to declining rate of change from January to April and a rise from May onwards (Figure IV.6.6). The yoy change in WPI of Sugar in 2013 followed the pattern of previous years till April after which it turned negative in response to the favourable monsoon in 2013, large stocks on hand and weak global prices. Significant exports and a pickup in consumption would be needed to bring down the large stocks on hand.

Figure IV.6.6: Recent Trends in Sugar Price: % YoY, WPI



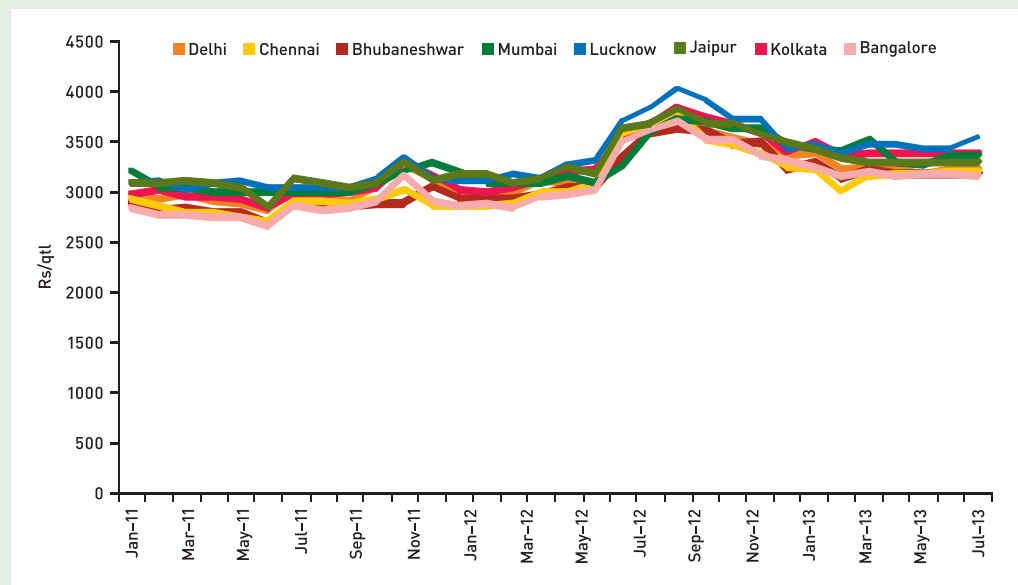
The year on year change in WPI of Sugar in 2013 followed the pattern of previous years till April after which it turned negative in response to the favourable monsoon in 2013, large stocks on hand and weak global prices.



Rising input costs, especially higher cane prices, are raising the cost of production of sugar which are also affecting consumer prices.

Trends in wholesale prices (open market price) of sugar in major cities show similar pattern. Prices peaked in September 2012 and declined thereafter till March 2013 after which they increased till August 2013. However, the prevailing prices are lower than the prices seen in August 2012 (Figure IV.6.7).

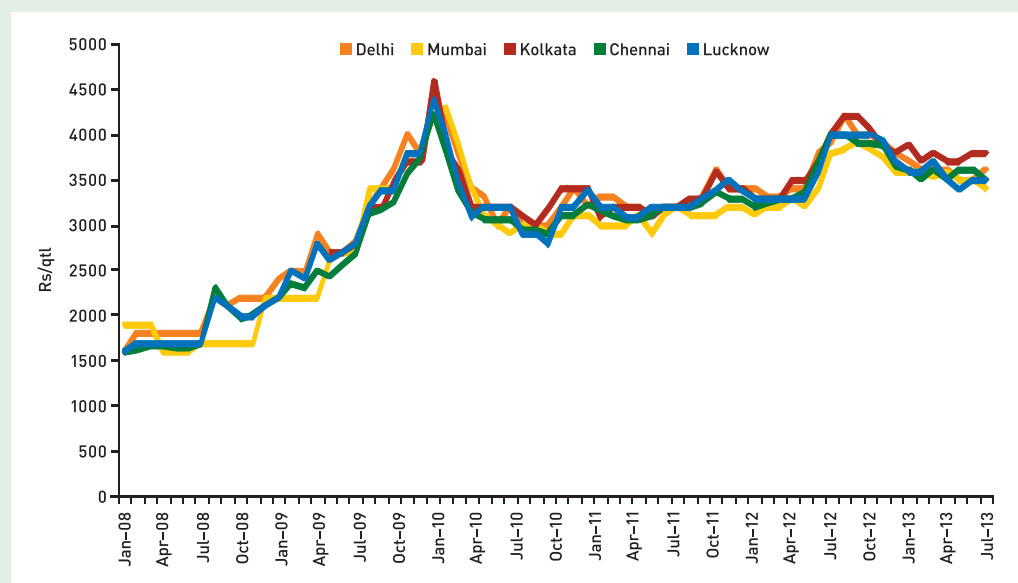
Figure IV.6.7: Wholesale Prices of Sugar in Selected Cities (Rs/Qtl)



Source: Directorate of Economics and Statistics.

Trends in retail prices are similar to the wholesale price trends. The retail prices had peaked in September 2009 and September 2012, both as a consequence of the deficient rainfall in the monsoon season of the respective years. Prices declined subsequently with a more favourable monsoon (Figure IV.6.8). Rising input costs, especially higher cane prices, are raising the cost of production of sugar which are also affecting consumer prices.

Figure IV.6.8: Retail Prices of Sugar in Selected Cities (Rs/Qtl)



Source: Directorate of Economics and Statistics.

IV.6.4 Supply and demand of sugar

India has experienced surplus domestic sugar production for 3 years in a row during the period of 2010–11 to 2012–13, adding to its stocks. The opening balance for 2013–14 is expected to be over 80 lakh tonnes, or a third of production. Domestic consumption of sugar has remained in the range of 20–22 million tonnes since 2007–08. Given the strong relationship with income, annual increase of 4–5 per cent year can be expected in the case of sugar. Weak rupee has provided some offsetting impact to domestic producers from the declining global prices. However, exports may not exceed the level achieved in 2012–13. An assessment of the supply-demand balance for 2013–14 suggests that year-end stocks may increase by 0.5 million tonnes. If sugar production exceeds 25.2 million tonnes as is likely with the projected increase in cane production there will be higher accumulation stocks.

Table IV.6.2: Sugar Supply and Demand ('000 tonnes)

Item	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Opening Stock	4300	11033	10500	4364	4980	6800	6500	7000
Production	28361	26356	14538	18912	24394	26342	24000	25200
Imports	0	0	2403	4080	0	0	1500	1500
Total Availability	32661	37389	27441	27356	29374	33142	32000	33700
Exports	1728	4956	165	235	2600	3500	2000	2000
Internal Consumption	19900	21900	22912	21328	20769	22000	23000	24150
Closing stock	11033	10500	4364	4980	6800	6500	7000	7550
Ratio of Exports to Total Availability (%)	5.3	13.3	0.0	0.9	8.9	10.6	6.3	5.9
Ratio of Domestic Consumption to Total Supply (%)	61.0	58.6	83.5	78.0	70.7	66.4	71.9	71.7

Source: Indian Sugar Mills Association.

IV.6.5 Outlook

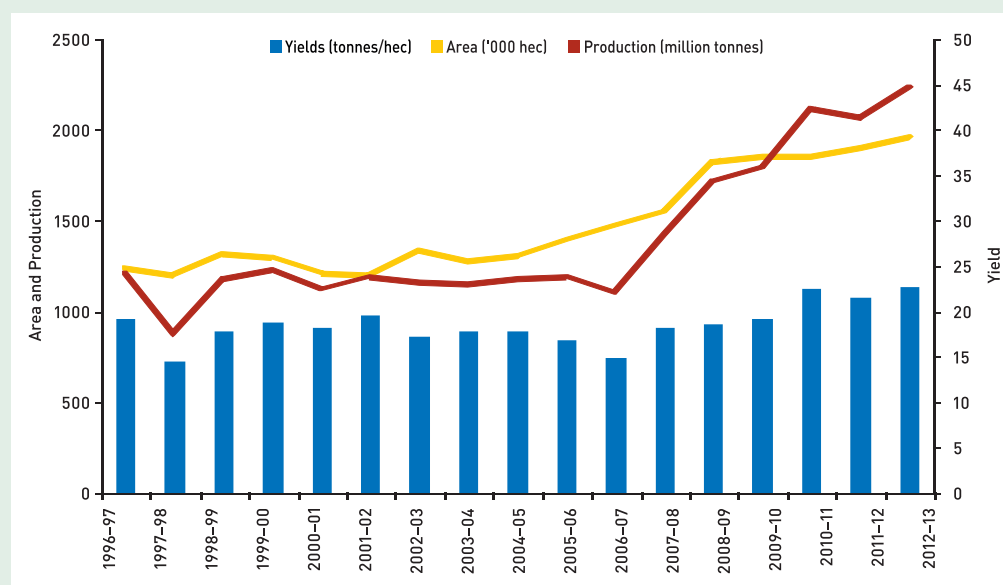
Favourable monsoon in the current year, especially where rainfall deficiency was significant in the previous year is a positive setting for production of sugarcane in 2013–14. Our projection is for a production of 347.8–353.0 million tonnes of sugarcane for 2012–13, higher than the 1st AE at 341.8 million tonnes. The high level of stocks of sugar with the industry implies that with the increased production downward pressure on market price of sugar will increase. In the context of declining world prices, finding export market to reduce the excessive stocks would be a challenge for the industry. The outlook for the sugar sector in the current year will be one of higher production and stable or lower prices.

IV.7 Potato

IV.7.1 Trends in production

Potato production was estimated at 44.73 million tonnes in 2012–13 as per the Third Advance Estimates. This was 7.8 per cent more than the final estimates for 2011–12 and exceeded the 1st AE of 42.48 million tonnes. Both expansion of area and increased yield contributed significantly to the increase in production. There was a recovery in yield from the drop experienced in 2011–12 and rising to the peak level of 2010–11 (Figure IV.7.1). Rabi season accounts for 80–90 per cent of annual production of this tuber crop in India. With favourable monsoon rains in 2013 prospects of potato production this year have improved.

In the context of declining world prices, finding export market to reduce the excessive stocks would be a challenge for the industry. The outlook for the sugar sector in the current year will be one of higher production and stable or lower prices.

Figure IV.7.1: Area, Production and Yield of Potato in India


Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Potato area, production and yields increased at a rate of 4.7, 6.5 and 1.8 per cent, respectively, between the years 2000–01 and 2012–13. In 2012–13 Potato area, production and yields increased by 3.1, 7.8 and 4.6 per cent, respectively, with production rising above the trend growth because of the favourable rainfall conditions in that year for the rabi crop (Table IV.7.1). The 2013–14 production may also achieve the decadal growth rate.

Table IV.7.1: State-wise Area, Production and Yields of Potato

State/region	Area	Production	Yield	Area	Production	Yield	Share of state %	
	Thous ha	Thous tonnes	(Tonnes/ha)	Thous ha	Thous tonnes	(Tonnes/ha)	in area	in production %
	2011-12	2011-12	2011-12	2012-13	2012-13	2012-13	2011-12	2012-13
Assam	89	783	8.8	99	975	9.8	4.7	5.1
Bihar	315	6102	19.4	315	6843	21.7	16.5	16.0
Chhattisgarh	41	579	14.1	43	649	15.0	2.2	2.2
Gujarat	81	2396	29.7	81	2500	30.8	4.2	4.1
Karnataka	46	653	14.3	47	660	14.0	2.4	2.4
MP	45	483	10.6	44	698	15.7	2.4	2.3
Maharashtra	88	1817	20.6	97	1998	20.7	4.6	4.9
Rajasthan	84	2104	25.0	85	2130	25.0	4.4	4.3
UP	568	14125	24.9	592	13870	23.4	29.8	30.1
West Bengal	377	9693	25.7	387	11550	29.9	19.8	19.7
Other states	173	2748	15.9	174	2854	16.4	9.1	8.9
India	1907	41483	21.8	1965	44726	22.8	100.0	100

Source: NHB (Third Advance Estimates).

Although potato is usually grown under irrigated conditions, monsoon season rainfall is important in determining the extent of irrigation that is possible in the ensuing rabi season.

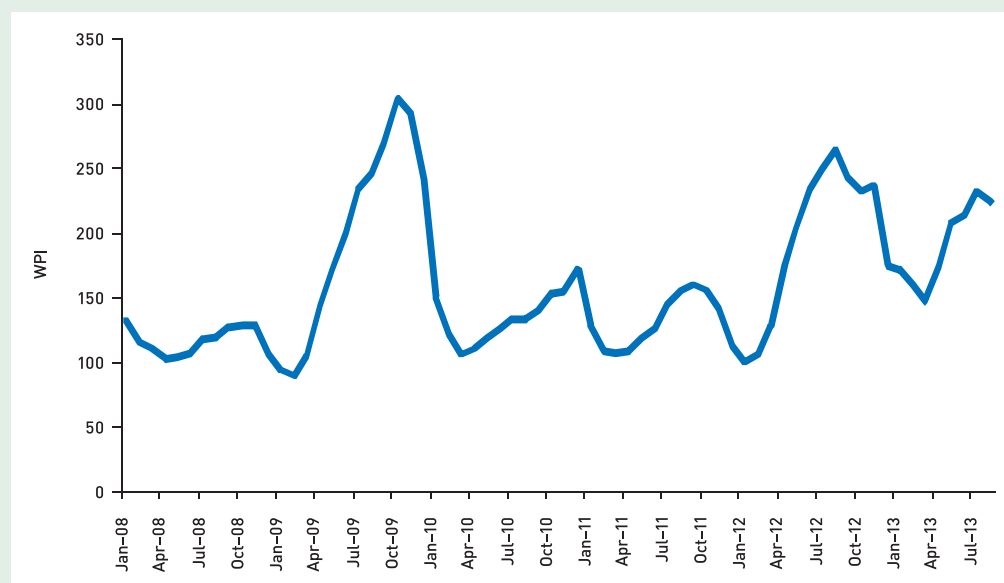
Although, potato is usually grown under irrigated conditions, monsoon season rainfall is important in determining the extent of irrigation that is possible in the ensuing rabi season. Across the states, UP, West Bengal and Bihar account for more than 75 per cent of

area under potato and a higher share in production. Among these states, West Bengal and UP received normal rainfall but Bihar experienced deficiency in rainfall. Gujarat, Punjab and MP may offset the adverse conditions in Bihar because of better than normal rainfall or better access to irrigation. However, in UP, yield had declined in 2012–13 leading to lower production.

IV.7.2 Prices

After two years of decline, the WPI of Potato rose sharply by 60 per cent in 2012–13 over the previous year (Figure IV.7.2). Prices rose sharply right from the beginning of 2012, in response to the lower production in the rabi season of 2011–12, reached a peak in August 2012. Much of the increase in price in 2012–13, thus took place in the first half of April–September. Rainfall conditions improved in the second half of the monsoon period of 2012 and rabi crop of potato was higher than previous year by 7.82 per cent. In the current year, crop prospects remain positive. Prices showed a decline from January 2013 to March 2013. With the arrival of fresh crop from January 2014 onwards, prices are expected to show more moderate yoy rate of increase.

Figure IV.7.2: WPI Trends in Potato: Monthly Data



Source: Office of Economic Adviser, Govt. of India.

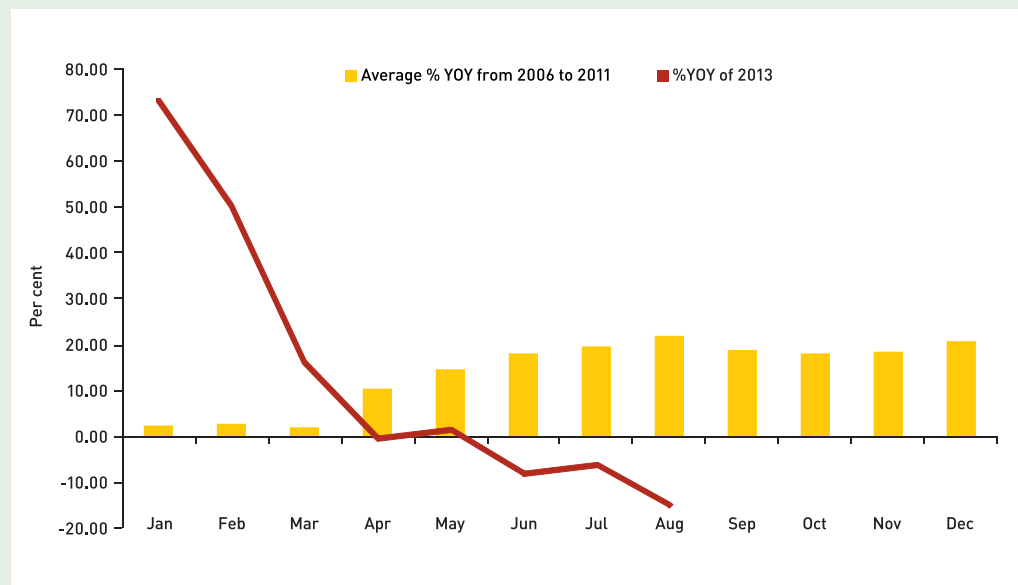
Typically prices decline or remain stable during September to March and then start an upward trend through September (Figure IV.7.2). The year on year change in WPI of potatoes in 2013 has been much higher in the months from January to March compared to the average of a longer term pattern. However, the yoy change has shown a rapid decline with prices falling below the longer term monthly averages. This decline in yoy change in prices reflects higher production in 2012–13 rabi production.

Typically prices decline or remain stable during September to March and then start an upward trend through September.



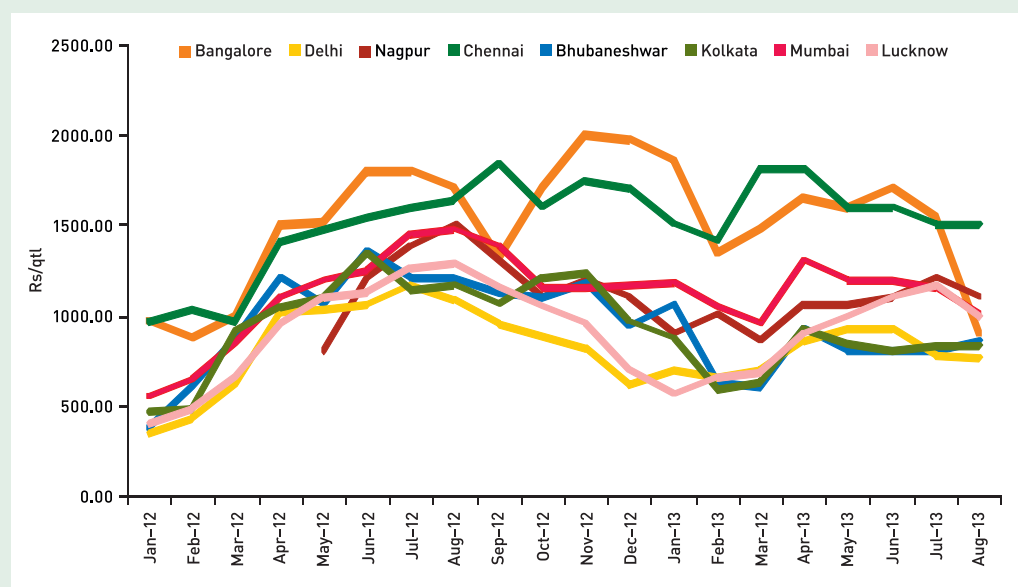
Both wholesale and retail price trends in 2012 and 2013 in selected cities show similar pattern with low prices at the beginning of 2012 and high prices from April to September. However, the seasonal pattern is more pronounced in wholesale prices than in the retail prices.

Figure IV.7.3: Comparison between Average % YoY of WPI from 2006 to 2011 and % YoY of 2013



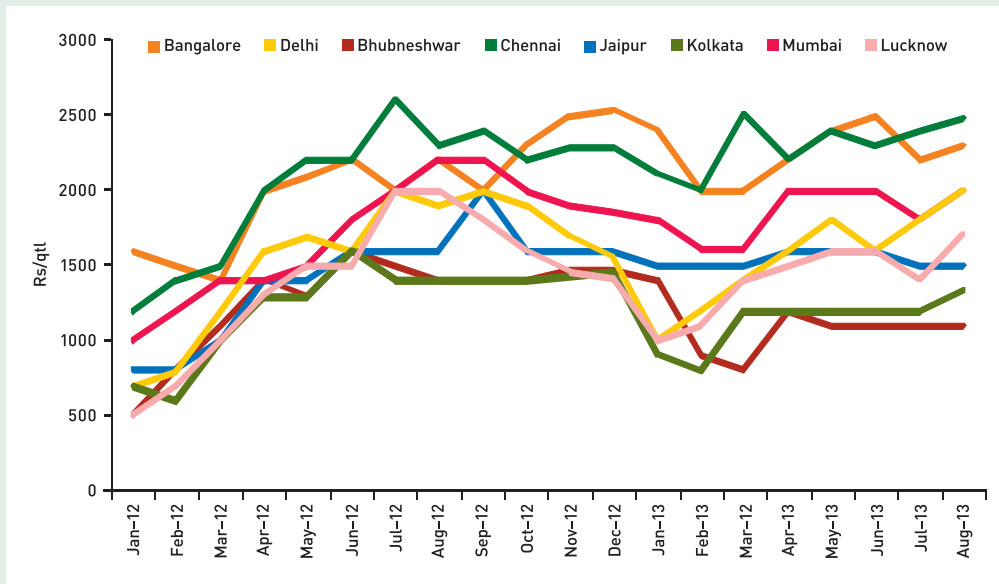
Both, wholesale and retail price trends in 2012 and 2013 in selected cities show similar pattern with low prices at the beginning of 2012 and high prices from April to September. However, the seasonal pattern is more pronounced in wholesale prices than in the retail prices (Figures IV.7.4 & IV.7.5). Both wholesale and retail prices have been lowest in Kolkata and Lucknow, cities near the production centres and the highest in the southern cities of Bangalore and Chennai.

Figure IV.7.4: Wholesale Prices of Potato in Cities (Rs/Qtl)



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

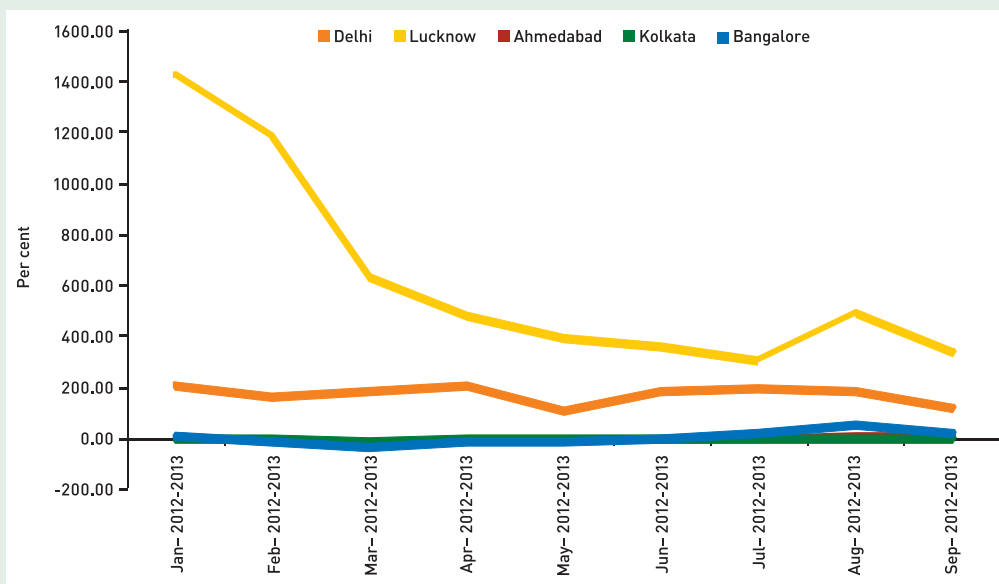
Figure IV.7.5: Retail Prices of Potato in Metro Cities (Rs/Qtl)



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Market arrivals were higher in the months of January–March 2013 relative to the same period in the previous year in Lucknow, a wholesale market in the major producing state of UP. Figure IV.7.6 illustrates the per day market arrival pattern in selected major mandis for Potato. The pattern also reflects a relatively effective distribution system in which market arrivals are smoother once the main harvesting season is completed.

Figure IV.7.6: Pace of Market Arrivals of Potatoes in 2013 (% YoY)



Source: www.agmarknet.nic.in

Trends in the futures market pattern suggests relatively stable prices till April 2014 (Table IV.7.2).

Market arrivals were higher in the months of January–March 2013 relative to the same period in the previous year in Lucknow, a wholesale market in the major producing state of UP.



With the projected production gains in 2013–14, prices are expected to register declining pattern yoy basis in the short-term.

Table IV.7.2: Futures Prices of Potato

Launch Date	Expiry Date	Futures Price (Rs/Qtl) as on 12th June 2013
16-Dec-12	15-Jun-13	902.00
16-Jan-13	15-Jul-13	842.00
16-Feb-13	14-Aug-13	792.00
as on 25th Sept 2013		
16-Mar-13	14-Sept-13	794.90
16-Sept-13	31-Mar-14	817.50
16-Oct-13	30-Apr-14	787.10

Source: www.mcxindia.com

IV.7.3 Potato supply and demand

Potato exports as a percentage of production has fluctuated but remained at less than 1 per cent over the years. Exports grew at a trend rate of 24.19 per cent per annum between 2000–01 and 2011–12. Most of the exports are to Nepal and Sri Lanka. For the year 2012–13, exports are projected to be at 262,000 tonnes given the increased level of output for the year. These exports are expected to be maintained in 2013–14 also. For assessing the supply-demand balance, we have retained exports at 1 per cent of production.

Table IV.7.3: Potato Supply and Demand ('000 tonnes)

Item	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Production	28471	34391	35889	42339	41483	44726	46200
Imports	0	0	0	0	0	0	0
Total supply	28471	34391	35889	42339	41483	44726	46200
Exports	82	196	97	174	203	262	338
Total domestic utilisation	28389	34195	35792	42165	41280	44464	45862
Ratio of exports to production	0.29	0.57	0.27	0.41	0.49	0.59	0.74
Share of domestic utilisation in total supply	99.71	99.43	99.73	99.59	99.51	99.41	99.27

Source: NHB& FAOSTAT.

* Export projections of 2012–13 based on average trend growth in the recent five years.

IV.7.4 Outlook

Higher Potato production in 2012–13 was achieved, although the overall monsoon rainfall was deficient relative to normal. One of the reasons for this increase in production was the improved rainfall in the months of August and September 2012, although rainfall was deficient in the months of June and July. The recovery in production after a decline in 2011–12, had a moderating effect on prices in January and February 2013. Prices have registered a decline of 9.7 per cent during the period of April–September 2013, yoy basis. With the projected production gains in 2013–14, prices are expected to register declining pattern yoy basis in the short-term.

IV.8 Onion

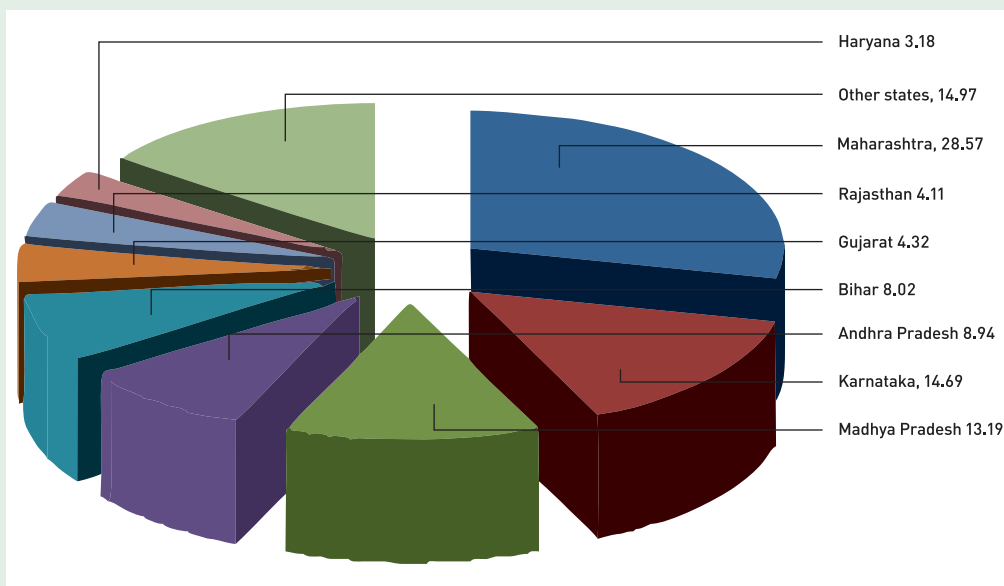
IV.8.1 Production pattern and trends

Onion is an important vegetable crop in India and is an integral component of Indian culinary. India is one of the largest producers of this crop globally. However, crop yield is

low with vulnerability to weather conditions such as moisture stress or excess rains during critical growth stages and relatively high incidence of pests and diseases typical under tropical conditions being the constraining factors. Wide price fluctuations make it a risky crop discouraging large scale adoption of input intensive production techniques and good management practices by farmers.

In India, onion is grown in three crop seasons, namely kharif (harvested in October–November), late kharif (January–February) and rabi (April–May). Rabi season crop is the largest accounting for about 60 per cent of annual production with kharif and late kharif accounting for about 20 per cent each. Major producing states are Maharashtra, Karnataka, Madhya Pradesh, Andhra Pradesh, Bihar, Gujarat, Rajasthan and Haryana, which together account for 85 per cent of total production (Figure IV.8.1).

Figure IV.8.1: Onion Production by State (% Share)



Wide price fluctuations make it a risky crop discouraging large scale adoption of input intensive production techniques and good management practices by farmers.

Table IV.8.1: Area (1000 Ha), Yield (Kg/Ha) and Production (1000 Mt) of Onion by State

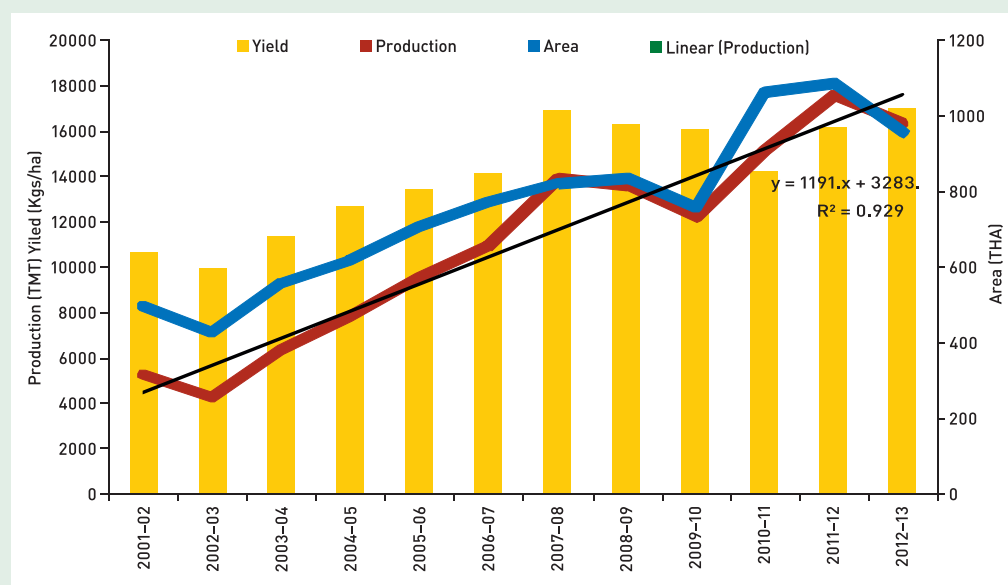
	Area	Production	Yield	Area	Production	Yield	Share of state in area		Share of state on production	
	2011-12	2011-12	2011-12	2012-13	2012-13	2012-13	2011-12	2012-13	2011-12	2012-13
Andhra Pradesh	48.5	824.8	17.0	85.8	1458.8	17.0	4.5	9.0	4.7	8.9
Bihar	53.8	1236.7	23.0	54.3	1308.6	24.1	4.9	5.7	7.1	8.0
Chhattisgarh	13.9	222.2	15.9	18.0	269.3	15.0	1.3	1.9	1.3	1.7
Gujarat	61.3	1562.2	25.5	28.9	704.4	24.4	5.6	3.0	8.9	4.3
Haryana	27.5	589.8	21.5	27.8	518.5	18.6	2.5	2.9	3.4	3.2
Jharkhand	15.7	318.2	20.3	17.2	322.2	18.7	1.4	1.8	1.8	2.0
Karnataka	177.2	2451.2	13.8	159.6	2395.9	15.0	16.3	16.6	14.0	14.7
MP	88.1	1957.0	22.2	96.9	2150.7	22.2	8.1	10.1	11.2	13.2
Maharashtra	382.0	5638.0	14.8	260.0	4660.0	17.9	35.1	27.1	32.2	28.6
Orissa	35.2	419.0	11.9	34.9	419.1	12.0	3.2	3.6	2.4	2.6
Punjab	8.2	182.7	22.2	8.3	182.9	22.2	0.8	0.9	1.0	1.1
Rajasthan	73.5	664.2	9.0	73.5	670.8	9.1	6.8	7.7	3.8	4.1
Tamil Nadu	37.1	556.5	15.0	25.3	277.9	11.0	3.4	2.6	3.2	1.7
UP	23.7	381.5	16.1	26.1	455.8	17.5	2.2	2.7	2.2	2.8
West Bengal	21.7	304.6	14.0	22.0	309.1	14.1	2.0	2.3	1.7	1.9
Other states	19.9	202.6	10.2	20.2	205.1	10.1	1.8	2.1	1.2	1.3
India	1087.2	17511.1	16.1	958.7	16309.0	17.0	100	100	100	100

Onion production has shown a steady upward trend, with a few exceptions, in response to increase in planted area and to a lesser account due to improvement in productivity. Area doubled in ten years reaching a record 1.09 million hectares in 2011–12 from about a half a million hectares in 2001–02. Yield increase during the same period was almost 70 per cent reaching 16.1 tonnes per hectare in 2011–12, with most of the yield increase taking place during the second half. Production more than tripled from 5.3 million tonnes in 2001–02 to 17.5 million tonnes in 2011–12.

Most of the increase in production was in Madhya Pradesh, Andhra Pradesh and Maharashtra where as in Gujarat there was a significant decline. In 2012–13, all India production declined by around 7 per cent to 16.3 million tonnes due to a decline in planted area in response to poor planting conditions in major growing regions despite yield scaling a new record of 17 tonnes per hectare.

Although, 2013–14 kharif production estimates are not yet available, heavy monsoon rains and late season rains coinciding with harvest season in major growing states may have some adverse effect on production and some deterioration in quality. The prevailing record prices, however, should provide incentives to farmers to bring more area under late kharif and rabi season crops. As a result, total production is likely to match or exceed 2011–12 record production of 17.5 million tonnes.

Figure IV.8.2: Onion Area, Yield and Production Trend



Note: The estimated trend line refers to production.

IV.8.2 Consumption

Per capita onion consumption has shown a significant growth in recent years. Based on NSSO data, per capita consumption at household level during the five year period of 2004–05 to 2009–10 has increased by 32 per cent in rural areas and 18.6 per cent in urban areas, implying an average annual growth rate of 6.4 per cent and 3.7 per cent, respectively (Table IV.8.2). On an annual basis per capita consumption in 2009–10 works out to be 9 kilograms in rural areas and 10 kilograms in urban areas. On a longer term, per capita monthly consumption increased from 380 grams per person in rural areas and 500 grams in urban areas in 1987–88 to 740 grams in rural areas and 850 grams in urban areas in 2009–10 (Table IV.8.2). Furthermore, the mushrooming of eateries and fast food chains and the increasing trend towards eating out also must have added to increasing consumption of onions.

Being an essential ingredient in most non-vegetarian cooking, the increasing consumption of meat and poultry meat should also translate into increased onion consumption. Besides, about 1 million tonnes of onion goes for further processing such as dehydration, pickling, etc. Seed use of onion bulbs is estimated to be around 50,000 tonnes per year. Thus, total annual consumption requirement of onion is 2012–13 is estimated at 12–13 million tonnes, growing at around 6 per cent annually.

Based on NSSO data, per capita consumption at household level during the five year period of 2004–05 to 2009–10 has increased by 32 per cent in rural areas and 18.6 per cent in urban areas, implying an average annual growth rate of 6.4 per cent and 3.7 per cent respectively.


Table IV.8.2: Monthly per capita Consumption of Onion (kg)

State	2009-10		2004-05		% Increase	
	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	0.961	1.021	0.719	0.720	33.66	41.81
Arunachal Pradesh	0.443	0.635	0.262	0.391	69.08	62.40
Assam	0.362	0.483	0.357	0.472	1.40	2.33
Bihar	0.797	0.905	0.574	0.714	38.85	26.75
Chattisgarh	0.618	0.879	0.477	0.646	29.56	36.07
Delhi	0.680	0.769	0.936	1.084	-27.35	-29.06
Goa	1.060	1.326	0.702	0.736	51.00	80.16
Gujarat	0.775	0.878	0.585	0.593	32.48	48.06
Haryana	0.940	1.037	0.697	0.820	34.86	26.46
HP	0.880	1.079	0.583	0.745	50.94	44.83
J&K	0.910	0.819	0.592	0.634	53.72	29.18
Jharkhand	0.753	0.930	0.622	0.840	21.06	10.71
Karnataka	0.802	0.901	0.660	0.701	21.52	28.53
Kerala	0.746	0.792	0.543	0.586	37.38	35.15
MP	0.715	0.848	0.527	0.618	35.67	37.22
Maharashtra	0.797	0.903	0.608	0.709	31.09	27.36
Manipur	0.268	0.312	0.166	0.260	61.45	20.00
Meghalaya	0.388	0.337	0.399	0.428	-2.76	-21.26
Mizoram	0.289	0.373	0.685	0.243	-57.81	53.50
Nagaland	0.160	0.283	0.214	0.314	-25.23	-9.87
Orissa	0.575	0.704	0.423	0.575	35.93	22.43
Punjab	1.146	1.263	0.894	0.897	28.19	40.80
Rajasthan	0.777	0.786	0.533	0.559	45.78	40.61
Sikkim	0.381	0.432	0.370	0.528	2.97	-18.18
Tamil Nadu	0.757	0.877	0.602	0.648	25.75	35.34
Tripura	0.359	0.520	0.319	0.412	12.54	26.21
UP	0.674	0.688	0.516	0.587	30.62	17.21
Uttarkhand	0.631	0.778	0.481	0.608	31.19	27.96
West Bengal	0.651	0.728	0.485	1.180	34.23	-38.31
A&N	0.634	1.004	0.630	0.768	0.63	30.73
Chandigarh	1.017	1.315	1.050	1.163	-3.14	13.07
Dadra	1.158	1.239	0.520	0.705	122.69	75.74
Daman	1.111	0.997	0.544	0.438	104.23	127.63
Lakshadweep	0.652	1.080	0.980	0.761	-33.47	41.92
Puduchery	1.022	1.162	0.699	0.744	46.21	56.18
India	0.741	0.854	0.561	0.720	32.09	18.61

Source: Household Consumption of Various Goods and Services in India: NSS 66th Round and 61st Round.

Post harvest loss in onion cultivation is believed to be very high, reportedly as much as 25 to 30 per cent. Physical injury during and after harvest, greening of onion due to exposure to sunlight, sprouting and injuries during storage due to ammonia, controlled-atmosphere storage, and freezing also cause postharvest losses. Postharvest diseases also lead to losses in the quantity and quality of onions during storage.

Table IV.8.3: Longer Term Trends in per capita Consumption of Onion in India (grams/30 days)

	Rural	Urban
1987–88	380	500
1993–94	460	560
1999–00	580	720
2004–05	561	720
2009–10	741	854

Source: Various Rounds of NSSO Consumer Expenditure Surveys.

IV.8.3 Price patterns and trends

Onion has shown considerable volatility in production as well as prices. For instance, the average rolling 12 month coefficient of variation in the monthly WPI during the period of 2004–05 to 2011–12 was 22.3 per cent for onion and it was 3 per cent for cereals and 16.2 per cent for vegetables as a group. The month-to-month variation in prices is, therefore, significant for onion. In case of production, the pattern of coefficient of variation of a rolling ten year period starting from 1991–92 onwards upto 2009–10 shows that the average for the period in the case of onion is 24.5 per cent, for potato it is 13.3 per cent and wheat it is only 6.7 per cent. The production fluctuations lead to corresponding fluctuations in supplies unless there are adequate stocks that can even out production shocks. As pointed out earlier, the weather fluctuations, incidence of pests and diseases can give rise to large fluctuations in output. Given the perishable nature of the commodity, suitable storage facilities are needed for maintaining stocks for longer periods.

Onion prices typically exhibit a seasonal trend peaking during the lean season of September–October and falling during April–May coinciding with the peak arrival season of the major rabi season crop (Figure IV.8.3). However, there have been aberrations from this pattern. For example in 2010–11, y-o-y onion inflation peaked in January 2011 instead of September–October 2010, attributable to a decline in kharif season output. In 2012–13 also onion price inflation after remaining low in September–October 2012, started strengthening from November 2012 onwards and continued to strengthen in ensuing months peaking at 182 per cent in February. However, after a short period of seasonal weakening of prices during March through May, price rise continued to strengthen reaching a new peak of 323 per cent in September 2013. According to current indications, onion inflation is expected to further strengthen in October because of the expected damage to kharif crop and high festive season demand, continuing at a lower rate, until the rabi crop starts arriving in the market by April 2014. Although damage to the kharif crop due to heavy untimely rains is one of the factors contributing to prevailing high onion prices, distribution network bottlenecks and lack of competitive markets are believed to be other factors.

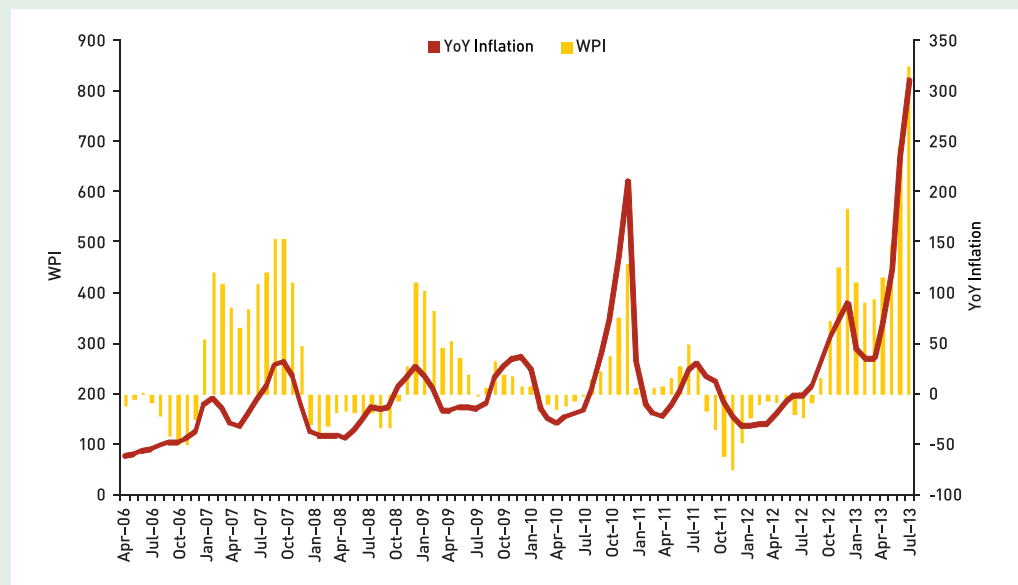
The increase in retail prices has been steeper due to high retail margins, which in turn may be attributed to increased retailing costs and inelastic demand environment. In Delhi, the onion retail mark up in the past has ranged from 50 per cent to 200 per cent – the mark up per cent is high when wholesale prices are low and vice-versa (Figure IV.8.4).

Average rolling 12 month coefficient of variation in the monthly WPI during the period of 2004–05 to 2011–12 was 22.3 per cent for onion and it was 3 per cent for cereals and 16.2 per cent for vegetables as a group.

The increase in retail prices has been steeper due to high retail margins, which in turn may be attributed to increased retailing costs and inelastic demand environment. In Delhi, the onion retail mark up in the past has ranged from 50 per cent to 200 per cent- the mark up per cent is high when wholesale prices are low and vice versa.

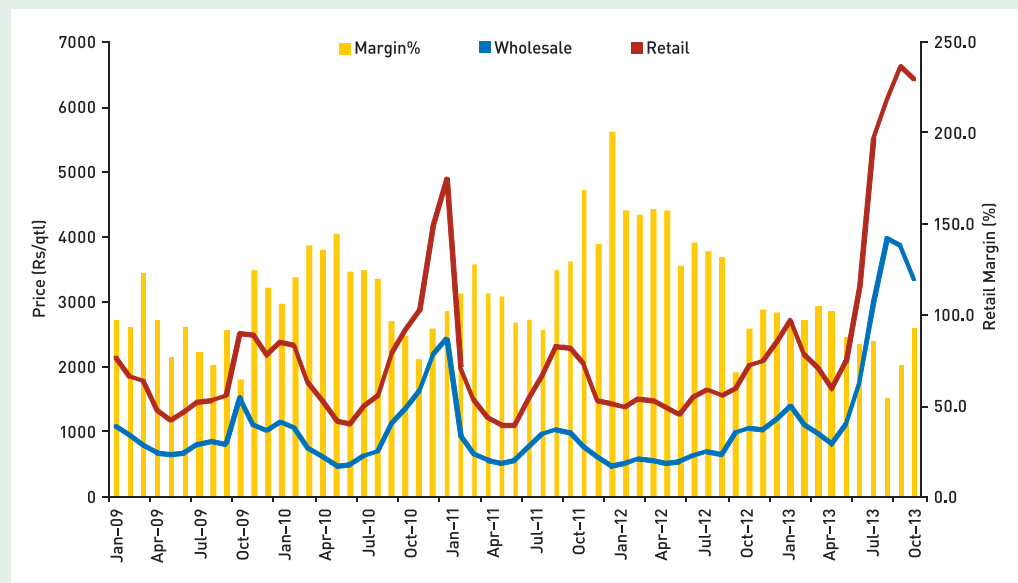


Figure IV.8.3: Onion Wholesale Price Index Trend and YoY Inflation



Source: Office of the Economic Advisor, Government of India.

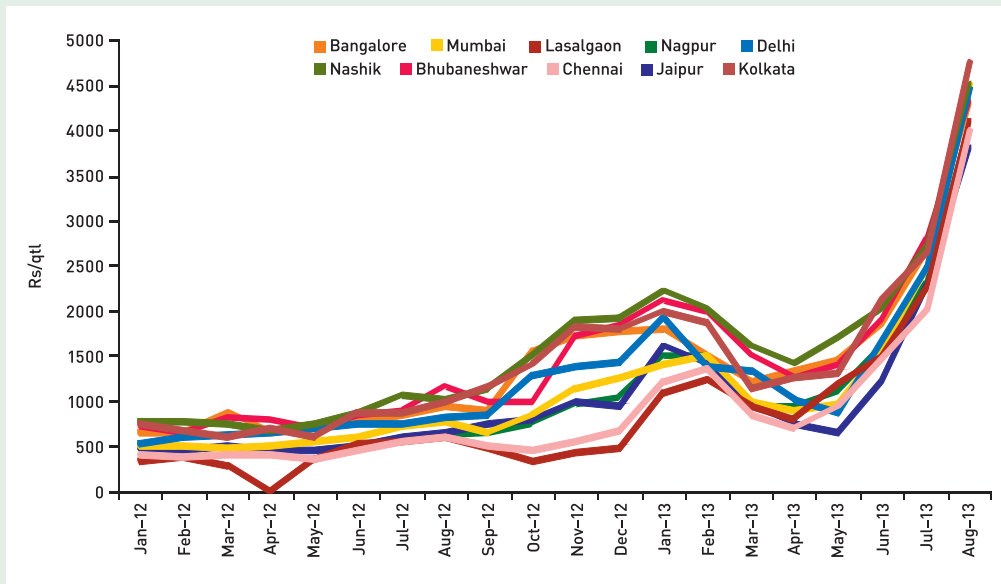
Figure IV.8.4: Delhi Onion Wholesale and Retail Prices and Retail Margin (%)



Source: Department of Consumer Affairs.

Recent trends in wholesale and retail prices of Onion in selected markets are illustrated in Figures IV.8.5 and IV.8.6. The wholesale prices had started to increase in September 2012 as a result of delay in the arrival of kharif Onion output in 2012–13 due to deficient rainfall. Prices in the major marketing centres, Lasalgaon and Nashik also increased October 2012 onwards. Prices peaked in January 2013 and started to fall from February onwards as rabi production began to arrive in markets. However, the fall in prices was short-lived as the overall decline in production for the year came to exert pressure on available supplies.

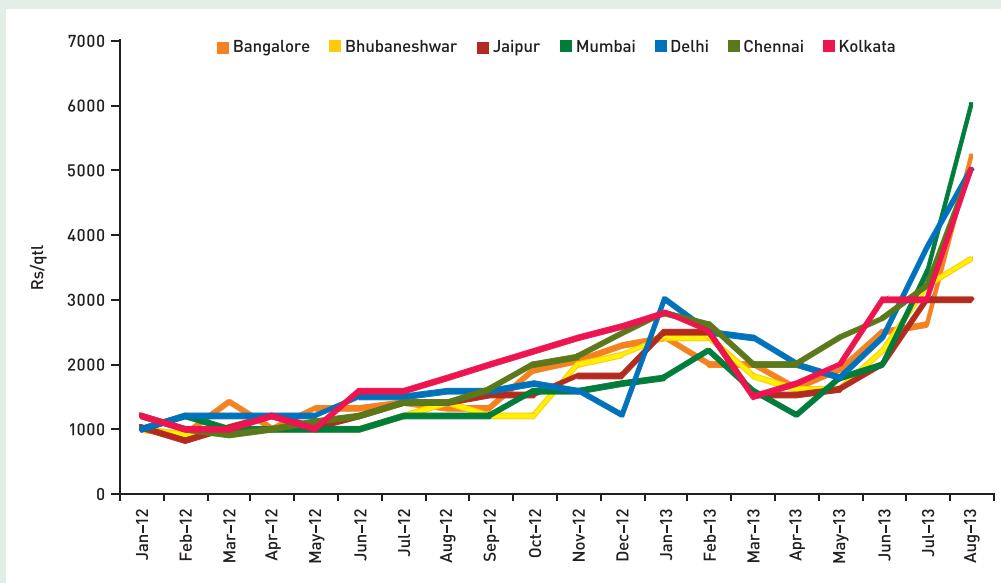
Figure IV.8.5: Wholesale Prices of Onion in Cities (Rs/Qtl)



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Retail prices followed nearly the same trend as that of wholesale prices, although there was more variation across markets in the case of retail prices. Both retail and wholesale prices showed increasing trend from mid-2012 in all the cities reaching a peak in January–February 2013. There was a decline in February 2013, but the new trend reversed from April–May. Government interventions such as checking hoarding, reducing transport/ storage bottlenecks may ease some price pressures but increased supplies from the fresh harvest are critical to achieve more sustained price stability.

Figure IV.8.6: Retail Prices of Onion in Metro Cities (Rs/Qtl)



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Government interventions such as checking hoarding, reducing transport/ storage bottlenecks may ease some price pressures but increased supplies from the fresh harvest are critical to achieve more sustained price stability.

Besides fulfilling the increasing demand of domestic population, India has emerged as a major exporter of onion.

The experience of sharp price increase points to the need for steady improvement in production by about 2 million tonnes to meet the growing demand for consumption and exports, besides the efforts to improve marketing and transportation logistics.

IV.8.4 Trade and Supply-demand balance

Besides fulfilling the increasing demand of domestic population, India has emerged as a major exporter of onion. Exports during the past decade have increased by over 300 per cent to 1.7 million tonnes in 2012–13. India also exports significant quantities of dried (dehydrated) onion, which in 2012–13 was around 52,000 tonnes (300,000 tonnes fresh onion equivalent). During April to June 2013, India exported around 520,000 tonnes of fresh onions and 12,000 tonnes of dried onions. Exports are mainly to Bangladesh, Malaysia, UAE and other Middle East countries, Sri Lanka, Indonesia, and Vietnam.

The prevailing high onion prices have prompted the government to consider imports. However, considering the limited global availability, high prices, and infrastructure bottlenecks, potential for quick imports on large scale is small. As a result to improve domestic supplies for containing domestic prices, the government increased the minimum export price of onions to \$900 per tonne effective September 19, 2013 from \$650 per tonne earlier. This is likely to result in lower exports in 2013–14.

Table IV.8.4: Supply and Distribution of Onion

Item	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14 F
Area (1000 Ha)	834.0	756.2	1,064.0	1,087.2	958.7	1,100.0
Yield (tonnes/Ha)	16.3	16.1	14.2	16.1	17.0	16.6
Production (1000 tonnes)	13,565.0	12,158.8	15,118.0	17,511.1	16,309.0	18,230.0
Imports(1000 tonnes)	0.1	0.6	12.5	0.0	0.5	10.0
Total Supply (1000 tonnes)	13,565.1	12,159.4	15,130.5	17,511.1	16,309.5	18,240.0
Exports (1000 tonnes)	1,670.2	1,676.6	1,182.3	1,309.9	1,666.9	1,000.0
Domestic Utilisation (1000 tonnes)	11,894.9	10,482.8	13,948.2	16,201.2	14,642.6	17,240.0
Ratio of exports to production (%)	12.3	13.8	9.0	6.3	6.8	5.5
Ratio of domestic consumption to production (%)	87.7	86.3	91.0	93.7	93.2	94.6

In 2012–13, onion production declined by an estimated 1.2 million tonnes or about 7 per cent of production of 17.5 million tonnes achieved in the previous year. Much of the decline was in the kharif season which normally contributes to 20 per cent of total production. Thus, although the overall decline in production was relatively small, the gap between supply and demand was greater because of the normal or trend increase in demand during the year. Perishable nature of the product and the need for effective transportation and storage facilities to address the concentration of production in a few states and in pockets within states, make the markets vulnerable to even relatively small production shocks.

The experience of sharp price increase points to the need for steady improvement in production by about 2 million tonnes to meet the growing demand for consumption and exports, besides the efforts to improve marketing and transportation logistics. Price increase necessary to achieve the supply response would have to be reflected in the net returns to the farmers. The analysis of supply-demand balances shows that there is no margin for absorbing the supply shocks unless stocks can be built up to manage such shocks.

IV.8.5 Outlook

The setting for the rabi onion production in 2013–14 has been favourable. Although kharif production may have been affected adversely to some extent, the overall output for

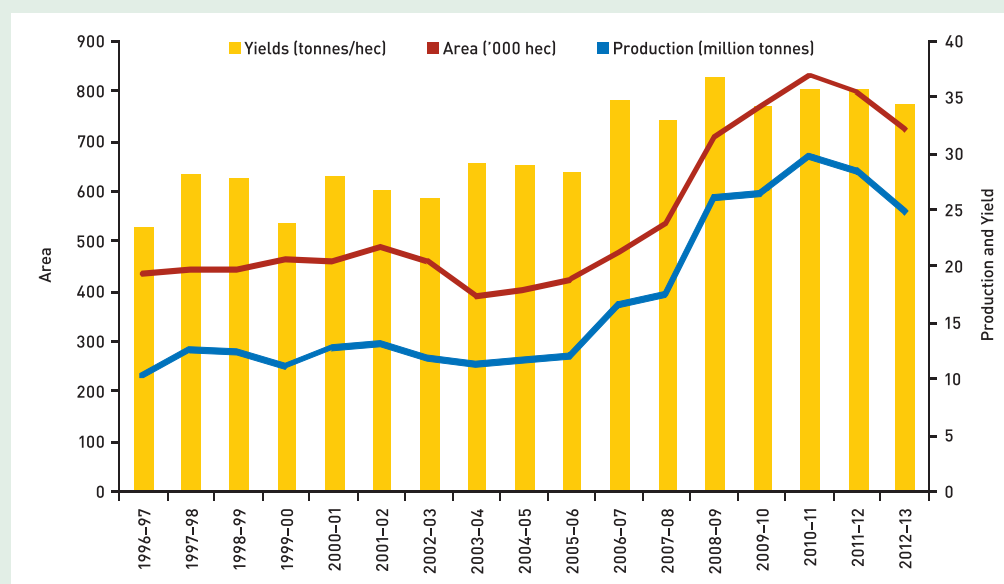
2013–14 is expected to exceed the production in 2012–13. The price trends reflect the shortfall in supplies and the perishable nature of the produce combined with low price elasticity of demand exacerbate the price response to supply fluctuations. The positive outlook for rabi harvest is expected to bring about more stable price conditions. There is a need to build up and manage stocks of this perishable commodity to meet the sudden spikes in production.

IV.9 Banana

IV.9.1 Production patterns and trends

Banana production was adversely affected by the deficiency in rainfall in 2012–13. The third advance estimates provided by the ministry of agriculture place production in 2012–13 at 24.9 million tonnes as compared to 28.46 million tonnes in the previous year. Drop of 12.6 per cent is significant reduction in supplies of this widely consumed fruit crop. Decline in production has been reported to be significant in Maharashtra and Tamil Nadu which accounted for 38 per cent of production in 2012–13. There has been a decline in both area and yield of banana at the national level in 2012–13.

Figure IV.9.1: Area, Production and Yields of Banana



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Among the other major producers of the crop, Andhra Pradesh, Karnataka and Gujarat recorded increased production although monsoon was inadequate in 2012–13, particularly in Karnataka and Gujarat (Table IV.9.1). In both Karnataka and Gujarat, area under the crop also increased during the year, reflecting greater incentives in switching to banana production relative to other crops.

The positive outlook for rabi harvest is expected to bring about more stable price conditions. There is a need to build up and manage stocks of this perishable commodity to meet the sudden spikes in production.

The third advance estimates provided by the ministry of agriculture place production in 2012–13 at 24.9 million tonnes as compared to 28.46 million tonnes in the previous year. Drop of 12.6 per cent is significant reduction in supplies of this widely consumed fruit crop.

Table IV.9.1: Area, Production and Yield of Banana in the Major Producing States and All-India level

State/ region	2011-12			2012-13			Share in area		Share in Production	
	Area "000 ha	Production "000 tonnes	Yield Tonnes/ ha	Area "000 ha	Production "000 tonnes	Yield Tonnes/ ha	2011-12 %	2012-13 %	2011-12 %	2012-13 %
Andhra Pradesh	82.9	2900	35.0	91.7	3211	35.0	10.4	12.7	10.2	12.9
Assam	49.1	745	15.2	51.5	837	16.2	6.2	7.1	2.6	3.4
Bihar	32.1	1581	49.2	33.1	1701	51.5	4.0	4.6	5.6	6.8
Chhattisgarh	16.4	382	23.3	18.7	413	22.1	2.1	2.6	1.3	1.7
Gujarat	65.0	4048	62.2	70.6	4524	64.1	8.2	9.8	14.2	18.2
Karnataka	91.6	2352	25.7	97.4	2530	26.0	11.5	13.5	8.3	10.2
Kerala	52.5	420	8.0	32.4	504	15.5	6.6	4.5	1.5	2.0
MP	24.8	1379	55.7	26.0	1448	55.7	3.1	3.6	4.8	5.8
Maharashtra	82.0	4315	52.6	82.0	3600	43.9	10.3	11.4	15.2	14.5
Orissa	37.5	506	13.5	27.5	521	19.0	4.7	3.8	1.8	2.1
Tamil Nadu	130.4	6736	51.7	87.1	3808	43.7	16.4	12.1	23.7	15.3
UP	32.5	1346	41.5	2.3	107	46.4	4.1	0.3	4.7	0.4
West Bengal	43.7	1054	24.1	44.7	1078	24.1	5.5	6.2	3.7	4.3
Other states	56.2	692	12.3	55.8	588	10.5	7.1	7.7	2.4	2.4
India	796.5	28455	35.7	721.8	24870	34.5	100.0	100	100	100

Source: NHB (Third Advanced Estimates).

In 2012–13 the average WPI for Banana increased sharply by 21.4 per cent over the previous year. In 2011–12, the increase was much lower at 6.4 per cent.

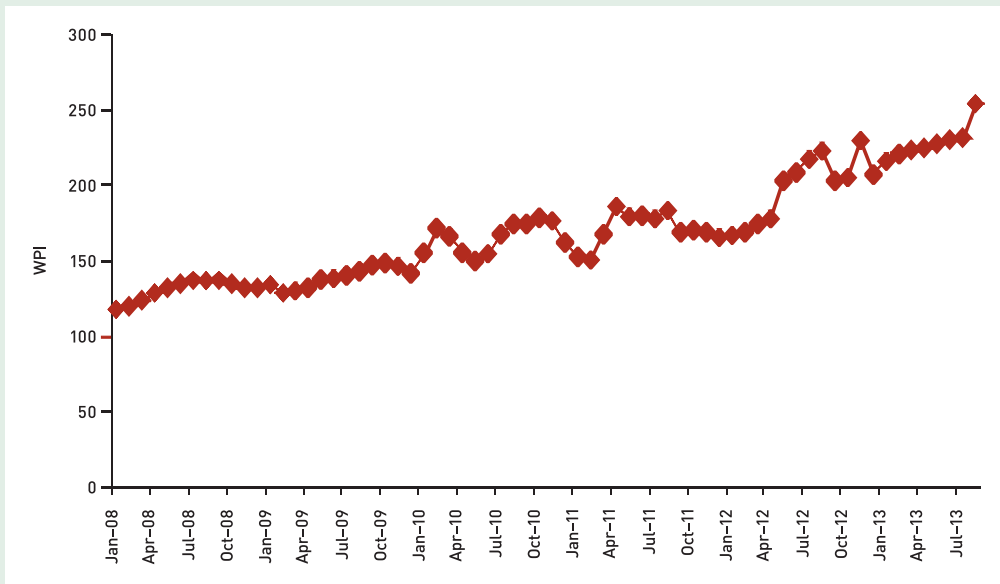
IV.9.2 Prices

In 2012–13 the average WPI for Banana increased sharply by 21.4 per cent over the previous year. In 2011–12, the increase was much lower at 6.4 per cent. As pointed out earlier, the drop in production would have meant price pressures in the absence of imports. The gradual increase in WPI of banana over the years is illustrated in Figure IV.9.2.

Judged against an average of a recent five-year period, the yoy percentage change in WPI for banana in 2013 was considerably high from January to May 2013, although the difference did come down through these five months period. The price rise between June and August 2013 has been close to the average pattern seen in 2006–2011 (Figure IV.9.3).

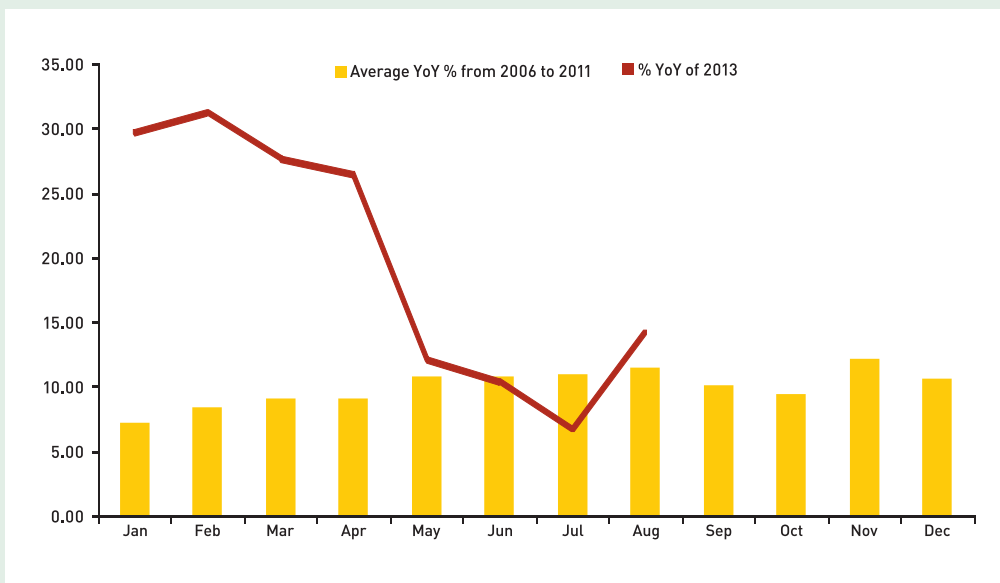
With a favourable monsoon in the current year, the price scenario in the remaining months may not deviate significantly from the 8-10 per cent range seen during 2006–2011.

Figure IV.9.2: Wholesale Price Index of Banana: Monthly Data



Source: Office of Economic Adviser, Govt. of India

Figure IV.9.3: Comparison between Average % YoY of WPI from 2006 to 2011 and % YoY of 2012 and 2013



Comparison of wholesale prices across cities close to producing or consuming centres shows that there is a wide variation in these prices, as much as Rs 20 to Rs 40 per dozen (Figure IV.9.4). The varietal differences are one source of differences in prices besides the transportation and storage costs that are involved in moving the fruit from producing region to consumption centres.

There are significant differences in the retail price also across cities. The need for suitable transport, storage and distribution network for perishable commodities such as fruits and vegetables is highlighted by the spatial differences in prices.

The wholesale prices were the highest in Kolkata (Rs 48/dozen) followed by Bhusaval (Rs

The need for suitable transport, storage and distribution network for perishable commodities such as fruits and vegetables is highlighted by the spatial differences in prices.

Among the four metros, retail prices during April–August 2013 were the highest in Kolkata. Mumbai had generally the lowest prices for banana during this period, only rising above the prices in Delhi in August.

30-40/dozen) Vellore (Rs 25-40/dozen) and Delhi (Rs 20-25/dozen) in the period April–August 2013.

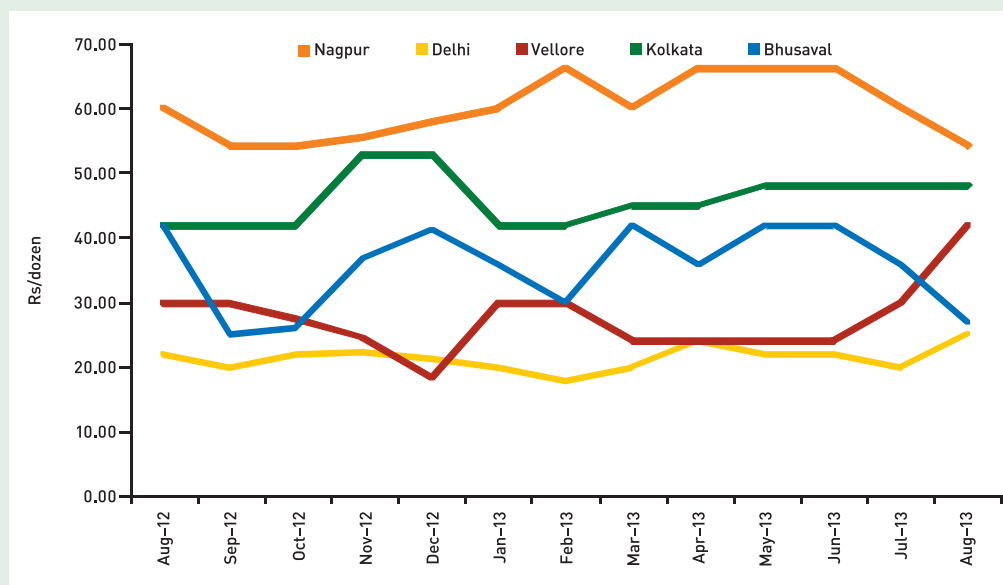
The pattern of prices during 2013 also points to divergence in trends. Trends in Vellore in Tamil Nadu and Bhusaval in Maharashtra are showing divergent trends in wholesale prices, with prices in Bhusaval declining and increasing in Vellore. Wholesale prices are increasing in Delhi but remained stagnant for the last few months in Kolkata.

Among the four metros, retail prices during April–August 2013 were the highest in Kolkata. Mumbai had generally the lowest prices for banana during this period, only rising above the prices in Delhi in August.

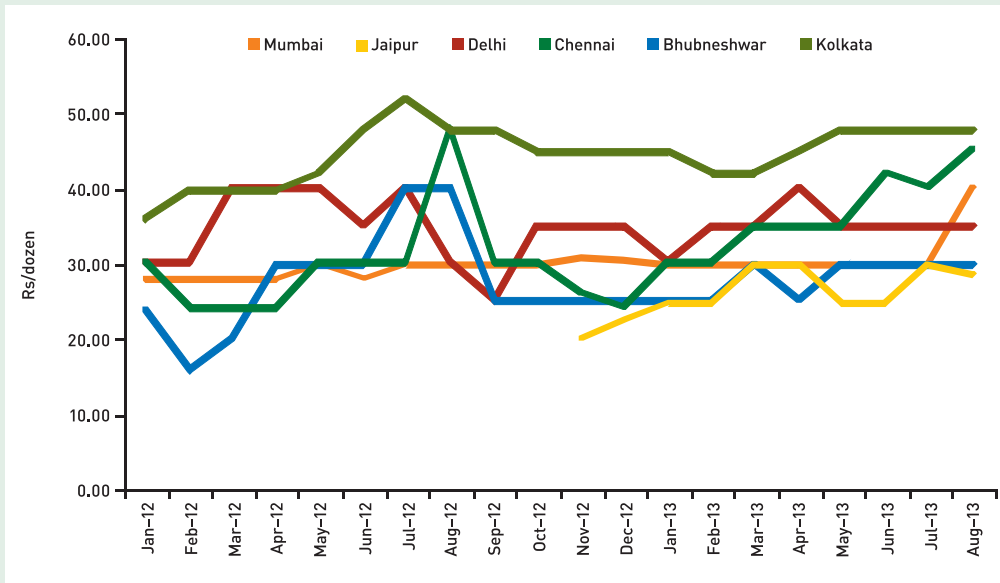
In the smaller cities of Bhubaneswar and Jaipur, retail prices were lower than in the metros in the first five months of the 2013–14.

The retail prices are showing an increase in Chennai and Mumbai, cities closer to the major producing states. Although banana is harvested throughout the year in Maharashtra and Tamil Nadu, the peak period for market arrivals during the year is August to October. The price trends in these months would be indicative of the supply situation of banana in the current year.

Figure IV.9.4: Wholesale and Retail Prices of Banana in Cities (Rs/Dozen)



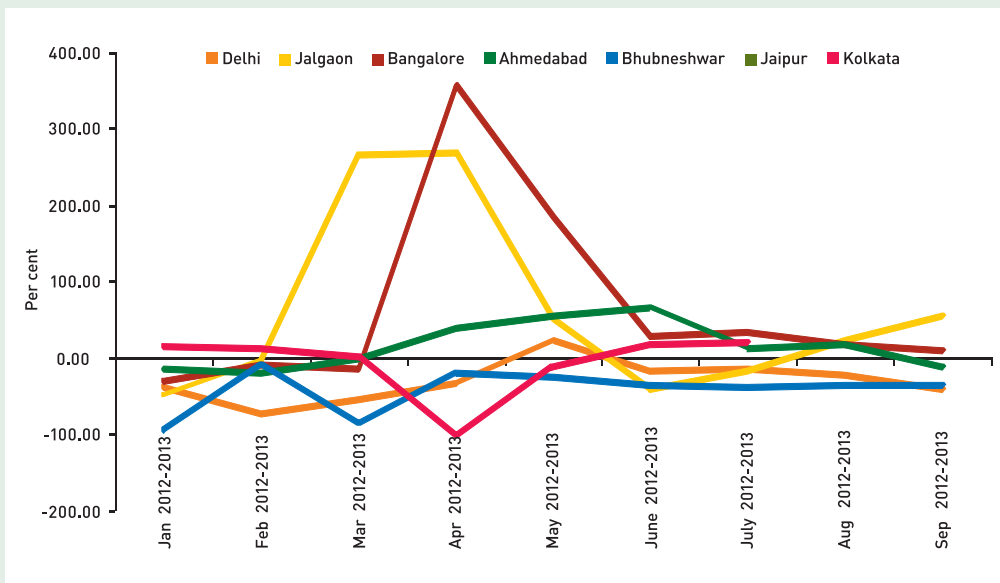
Source: Directorate of Economics and Statistics, Ministry of Agriculture.



Source: Directorate of Economics and Statistics, Ministry of Agriculture.

The market arrival pattern shows that in Jalgaon and Bangalore, there is increased supply as compared to last year in August and September 2013 (Figure IV.9.5). In Ahmedabad there is a dip in September 2013 arrivals as compared to the same period of last year. The good monsoon is expected to translate into increased production in the current year.

Figure IV.9.5: Year on Year Market Arrivals of Bananas in 2012-2013 (%)



Source: www.agmarknet.nic.in



IV.9.3 Banana supply and demand

A sharp decline of 12 per cent in production can be expected to have an impact on prices, especially because of India is also not importing bananas. Actually it exports small quantities to neighbouring countries and middle-east, amounting to less than 1 per cent of production. There has been push to expand production for export markets also. In the short-term, any reduction in production has to be balanced by reduction in consumption or reduced wastage.

Table IV.9.2: Banana Supply and Demand ('000 tonnes)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Production ('000 tonnes)	12,105	16,609	17,647	26,217	26,470	29,780	28,455	24,869
Imports ('000 tonnes)	0	0	0	0	0	0	0	0
Total supply ('000 tonnes)	12,105	16,609	17,647	26,217	26,470	29,780	28,455	24,869
Exports ('000 tonnes)	14	11	17	30	54	61	41	52
Total domestic utilisation ('000 tonnes)	12,091	16,598	17,630	26,187	26,416	29,719	28,414	24,817
Ratio of exports to production (%)	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
Ratio of domestic consumption to total supply (%)	99.9	99.9	99.9	99.9	99.8	99.8	99.9	99.8

Source: NHB& FAOSTAT.

*Export projections of 2012-13 are based on average growth rate for the recent five years.

IV.9.4 Outlook

Banana prices have moderated in the beginning of this year, indicating adequate supply. However, as has been observed over the last two years, banana prices rise in the summer months as fresh supplies from the farms decline and decline thereafter as supplies improve. Following a favourable monsoon this year, prices are expected to show more modest increase in 2013-14 relative to the sharp increase seen in 2012-13.

IV.10 Milk

IV.10.1 Production trends

Final estimates for milk production for 2012-13 now stand at 132.4 million tonnes, close to the estimate of 132.1 million tonnes provided in the previous quarterly Agricultural Outlook Report of June 2013. Milk production has increased at close to 4 per cent per year during the last two decades, from 1991-92 to 2010-11. Although, production growth rate was higher at 5 per cent during 2011-12, it came down to 3.5 per cent during 2012-13 as monsoon rainfall was poorly distributed during the year adversely affecting fodder availability and feed cost. The per capita availability of milk has now reached about 300 grams per day, above the world's average but well below the consumption levels in the developed countries.

Monsoon rainfall is critical for Indian agriculture influencing dairy sector as well as crop production. Normal or better than normal rainfall leads to improved availability of feed and fodder. The other factor influencing production and supply of milk is the price of milk which affects investments in stock of milch animals. The wholesale price index for milk in April-September 2012-13 increased by 9.2 per cent over the same period in 2011-12 followed by an increase of 4.5 per cent in April-September 2013-14 over the same period

Following a favourable monsoon this year, prices are expected to show more modest increase in 2013-14 relative to the sharp increase seen in 2012-13.

The per capita availability of milk has now reached about 300 grams per day, above the world's average but well below the consumption levels in the developed countries.

in the previous year. While the increase in WPI for milk is lower than the increase in the WPI for cereals for the same period it is similar to the increase in WPI for oilseeds. The overall price environment for milk producers in the recent years has been positive.

IV.10.2 Consumption and prices

Growth in demand for milk and milk products is expected to increase at 4-5 per cent over the medium-term as the per capita consumption levels remain well below the consumption levels in the developed world. Milk and milk products are considered important source of nutritional security of the population as milk and milk products are an important source of protein in the diet.

Milk procurement by the cooperative sector increased at a lower rate of 4.9 per cent during January–August in 2013 over the same period in 2012, as compared to the increase of 19.7 per cent in April–August 2012, yoy basis. Thus, although the procurement this year has increased more slowly as compared to the experience of the last year, it is above the expected increase in consumption in the medium-term. The winter season may experience relatively greater increase in procurement in the current year, given the better feed and fodder situation this year.

Table IV.10.1: Month/Year-wise Average Milk Procurement by Cooperative Sector

S. No.	Month	Av. Milk Procurement (mill kg Per Day)			
		2010	2011	2012	2013
1.	Jan	28.3	29.7	34.8	36.7
2.	Feb	28.5	30.1	34.9	36.8
3.	Mar	26.2	29.1	34.5	36.7
4.	Apr	25.9	27.0	34.0	35.9
5.	May	25.3	27.0	31.3	31.8
6.	June	23.9	25.6	30.9	33.4
7.	July	24.1	25.8	30.7	32.8
8.	Aug	20.0	25.4	30.4	31.9
9.	Sept	19.8	26.3	30.0	
10.	Oct	21.2	26.4	30.1	
11.	Nov	27.1	31.3	34.5	
12.	Dec	29.5	32.2	35.4	
	Average per month	25.0	28.0	32.6	34.5

Source: Department of Dairying and Animal Husbandry.

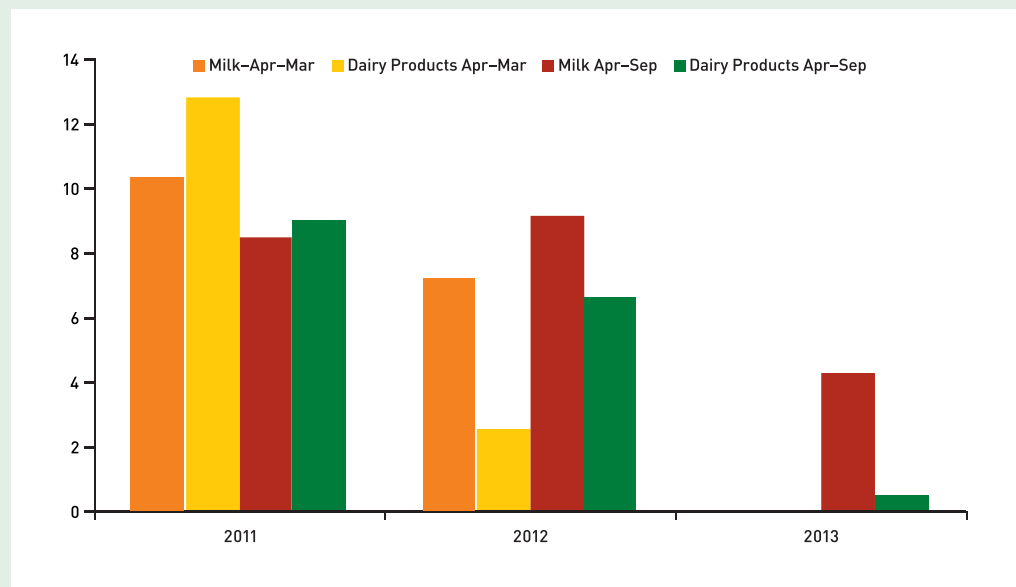
The WPI for milk rose by 7.2 per cent in 2012–13 over the previous year, lower than the increase of 10.3 per cent registered in the previous year. The drop in the WPI for dairy products was more sharp: from 12.8 per cent increase in 2011–12 to 2.6 per cent in 2012–13. The drop in the pace of price rise in product prices reflects the global trends also. The average dairy price index of FAO dropped by 15.7 per cent in 2012 over the previous year whereas it had actually increased by 11.4 per cent in 2011 over 2010. In the period of April–September 2013–14, the first six months of the current financial year, WPI for milk increased yoy by 4.36 per cent, less than half the rate seen in the previous year. The drop in WPI for dairy products is more sharp (Figure IV.10.1). However, the price scenario for the dairy sector is also sensitive to the cost of production.

While the increase in WPI for milk is lower than the increase in the WPI for cereals for the same period it is similar to the increase in WPI for oilseeds. The overall price environment for milk producers in the recent years has been positive.

Although the procurement this year has increased more slowly as compared to the experience of the last year, it is above the expected increase in consumption in the medium term.

In the period of April–September 2013–14, the first six months of the current financial year, WPI for milk increased year on year by 4.36 per cent, less than half the rate seen in the previous year.

Figure IV.10.1: Trends in WPI of Milk and Dairy Products: % YoY



Source: Office of Economic Adviser, Department of Industrial Promotion and Policy.
Note: When April–March is referred, 2011= 2011–12 and 2012= 2012–13.

As feed and fodder prices and transportation cost rose significantly, major State Milk Marketing Federations raised procurement price of milk in the country by up to 7 per cent between August 2012 and August 2013. The retail prices of milk and milk products were also revised upward by cooperatives ranging from 7 per cent to 11 per cent during the same period. The increase in retail prices was greater as increase in the distribution and employee costs were also driving these prices.

While accommodating cost increase through increasing prices is possible when consumer demand is rising, improvement in productivity would be needed to maintain competitiveness of production. The projections of demand over the medium-term point to the opportunity for the growth of the sector. However, improvement in productivity would be critical for converting potential demand into actual demand.

While accommodating cost increase through increasing prices is possible when consumer demand is rising, improvement in productivity would be needed to maintain competitiveness of production.

Table IV.10.2: Retail Prices of Toned Milk (TM) & Full Cream Milk (FCM) Marketed by Major Milk Marketing Federations: Rs/ kg

State	TM		FCM	
	Aug. 2012	Aug. 2013	Aug. 2012	Aug. 2013
Mother Dairy, Delhi	29	32	37	42
GCMMF (AMUL) Delhi	29	32	34	42
Haryana	29	32	37	42
Punjab	29	32	36	38
Uttar Pradesh	29	30	38	40
Madhya Pradesh	26	28	34	38
Bihar	28	29	35	38
Gujarat (Amul)	28	31	38	42
Maharashtra	29	32	37	40
Rajasthan	28	30	35	40
Andhra Pradesh	30	32	38	40
Karnataka	24	27	34	36
Tamil Nadu	20.5	27	28	35
Average Price All India	28	30	35	39

Source: Department of Dairying and Animal Husbandry.
Note: Prices at the end of August each year.

IV.10.3 Trade

Increasing milk production particularly during flush season has required the cooperatives and private trade to focus on value addition and exports so that milk produced is fully utilised to meet consumption demand. Across Asia, India is the only country now with surplus milk production at current levels of consumption.

Milk consumption throughout the ASEAN region, especially the ASEAN six majors, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam has gone up in recent years due to improving diets, rapid urbanisation and an increasingly health-conscious middle class. As a result, these countries have been increasingly dependent on the import of dairy products. A Rabobank report points to dairy trade in the region surpassing 1.6 million tonnes in 2012, which is equal to a \$5.5 billion export opportunity⁹. Dairy consumption across south east asian nations is expected to grow by 2.4 per cent per year through to 2020. The region is one of the few remaining dairy battle grounds and the boom in demand has triggered intense competition among producers.

As the demand for dairy products increases from member nations of ASEAN and from traditional markets, such as Pakistan, Bangladesh, Sri Lanka, Egypt, Nigeria and Saudi Arabia, India's dairy sector has an opportunity to expand. India's advantage may lay in its quality and price. India now exports only about one per cent of its total production. In the last financial year, government lifted ban on export of SMP and other dairy products only in June and India exported about 60,000 tonnes of SMP. During the current year (2013–14) India's total milk powder exports are likely to touch 100,000 tonnes. The value of export of dairy products for 2012–13 is projected at Rs 2500 crore as against export of Rs 1400 crore during 2011–12.

IV.10.4 Assessment

As the monsoon rainfall in the country was normal and evenly distributed in most parts of the country milk production during 2013–14 is expected maintain its trend growth rate of 4.3 to 4.5 per cent seen in years of normal monsoon to reach 138.1 to 138.4 million tonnes in the current year.

India's organised dairy market has shown strong growth in the recent years. It is likely to sustain the growth due to favourable market conditions.

Milk prices at the producer level should remain at levels that provide adequate incentives for increasing production. In the short-term, rising production will help moderate the price level in the current year. But in the longer run, improvements in productivity will be needed along the supply and marketing chain for milk.



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9. Business Standard, July 11, 2013.



PART V

Conclusions

The prospects for agricultural production outlook for the current year were brightened by a favourable monsoon although there were deviations from the long period average (LPA) rainfall in terms of excess and deficient rains spatially. There were also disasters of huge magnitude first in the form of heavy rains and floods in Uttarakhand and then the cyclone Phailin striking Odisha Coast followed by heavy rains and floods in Odisha, Andhra Pradesh and Bihar in October. Across the country, the monsoon rainfall was normal or excess in the north-west, central and southern regions and deficient in the eastern and north-eastern regions. The temporal distribution of rainfall was, however, more even at the national level. The rainfall was normal (plus or minus 19 per cent of the LPA) or excess (above 19 per cent of the LPA) in each of the four monsoon season months. The late withdrawal of monsoon with more than LPA rainfall in October helped improve water availability for the ensuing rabi season crops. The late rains have also had some adverse effects on crops that were ready for harvest such as soybeans and maize. Overall, the impact of rainfall pattern of the current year's monsoon is expected to result in a kharif output surpassing the last year's kharif production and improve the prospects for rabi harvest.

At the global level, the current year is marked by improved production of major food commodities compared with the previous year. As a result, international prices are expected to remain stable or decline. In the domestic market, however, the increasing trend in the price index of overall food basket has continued to be a concern. Although prices of manufactured products as a whole have shown a modest increase, food and fuel prices have registered significant increase since the beginning of 2012. While the supply situation of rice and wheat has remained satisfactory given the large production and high stocks, the price rise in vegetable crops like onion can be addressed only by fresh supplies from higher output. The favourable monsoon has, therefore, strengthened expectations of moderation in the rate of food inflation in coming months as the kharif crop begins to arrive in the markets and the rabi crop outlook also looks promising.

The present report provides an assessment of production of major food commodities for the kharif season, price and trade environment and other issues with relevance to these aspects of the food economy. The report also provides a discussion of the supply and demand conditions at the global level based on assessments by international agencies.

The major points emerging from the review are summarised below:

An assessment based on rainfall and trend pattern of production places production of kharif foodgrains at 133.5 to 138.4 million tonnes, well above the government's 1st AE. In the case of sugarcane and kharif groundnut also, the assessment based on rainfall and trend variables provide output estimates above the 1st AE. The projections provided in the present report exceed the projections provided in the previous quarterly report mainly because of the higher rainfall recorded during June–September 2013 as compared to the assumptions made at the time the earlier projections based on the IMD forecast.

The report also provides an assessment of the price trends in the short-term of next 3-4 months based on the monthly data of wholesale prices. General explanations for the

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The favourable monsoon has, therefore, strengthened expectations of moderation in the rate of food inflation in coming months as the kharif crop begins to arrive in the markets and the rabi crop outlook also looks promising.

In the recent three months upto September 2013, the WPI for the food sector as a whole, comprising of both primary food articles and manufactured food products, increased by 9.5–12.6 per cent over the same period in 2012. Onion, rice and maize triggered the high food price inflation.

The relatively high rate of price rise in food commodities in the domestic market is in contrast to the declining pattern of prices in the international market.

sustained high level of food inflation and volatility in some commodity prices during the year 2012–13 and into 2013–14 are: (1) the impact of less than normal rainfall in the monsoon period of 2012; (2) need to provide remunerative prices to the farmers when costs rise; and (3) inadequate marketing and storage infrastructure for perishable farm produce in the face of rising demand for more high valued produce such as fruits, vegetables and livestock products.

Although, the rabi harvest turned out to be satisfactory in 2012–13, the shortfall in kharif production was the main cause of high food prices, which spilled over into 2013. In the recent three months upto September 2013, the WPI for the food sector as a whole, comprising of both primary food articles and manufactured food products, increased by 9.5–12.6 per cent over the same period in 2012. Onion, rice and maize triggered the high food price inflation. In the case of rice, the price rise was supported by larger government procurement of rice leading to lower availability in the open market. The price rise in onion has followed a decline in the output in 2012–13.

The relatively high rate of price rise in food commodities in the domestic market is in contrast to the declining pattern of prices in the international market. Depreciation of the currency provides one explanation for the divergence in trends, the other explanations being domestic price support policies and limited trade opportunities as in the case of fruits and vegetables.

India's exports and imports of agricultural commodities have increased manifolds since trade was liberalised in the 1990s. India has emerged as one of the top exports of rice globally. Imports of pulses and vegetable oils have increased to meet the domestic demand with imported vegetable oils meeting about half the domestic requirements. Imports supply about 15 per cent of the domestic demand of pulses.

The projected supply-demand balances for 2013–14 show that supplies are expected to meet demand for most of the commodities analysed implying moderation in the price scenario with the arrival of rabi harvest in the markets. Efforts to modernise marketing and storage infrastructure for the perishable products are needed to reduce the volatility in the prices of perishable produce.

The rice supply-demand balances analysis suggests that the stocks with the government are likely to increase to 24 million tonnes by the end of MY 2013–14 from the beginning stock of 23 million tonnes accommodating export of 9 million tonnes. The WPI for rice is expected to show some decline in December but the yoy rate of increase is projected remain at double digit rates in the short-term.

Wheat production for 2012–13 which provides supplies for the marketing year 2013–14 has been estimated at 92.5 million tonnes, well below the 94.9 million tonnes mark of 2011–12. Because of the lower production and a significant decline in government procurement, the year-end stocks on April 1, 2014, are expected to be lower at 18 million tonnes from the beginning stocks of 23 million tonnes. We also project export of 5 million tonnes in the current marketing year. The WPI for wheat is projected to increase by 6–7.5 per cent yoy basis in the short-term upto January 2014.

In the case of pulses, kharif production in the current year is projected to exceed the production in 2012–13. Among the oilseeds, both groundnut and soybean production is expected to be higher in the current year although the impact of late season rains on soybean has not been fully captured in the present analysis.

Among the fruits and vegetables covered in the Outlook Report, we project potato production at 46.2 million tonnes, a 8.7 per cent increase over the 42.5 million tonnes in 2012–13. Production of onion is also projected to increase to 18.1 million tonnes from 16.8

million tonnes in 2012–13. Production of banana is projected at 33.8 million tonnes, an increase of 3.5 million tonnes over the previous year. Production of sugarcane is estimated at 349.2–350.0 million tonnes. The higher production is projected to provide price relief to the consumers.

In the case of milk, despite a projected higher output, there may be some upward pressures on the prices in the short-term due to higher input and post-production processing and distribution costs.

Overall, the favourable monsoon in most parts of the country in the current year provides prospects of improved availability of food commodities for the consumers. The analysis also points to moderation in price pressures in the major commodities such as coarse grains, pulses and oilseeds although the aggregate measures of food inflation will remain a concern until the fresh supplies begin to arrive in markets for commodities such as onion.





Meetings/ Workshops Organised under the Project, “Outlook and Situation Analysis for Food Security” during April–September 2013.

Monthly briefings held in the Ministry of Agriculture, Krishi Bhawan

Eighteenth monthly briefing under the Project was held on 29th April, 2013, under the Chairmanship of Secretary (A&C). Dr Holger Matthey, Economist, FAO, Rome and Dr Gregoire Tallard, Agricultural Policy Analyst, OECD, Paris made a presentation on “India specific outlook results in the OECD-FAO Agricultural Outlook”.

Nineteenth monthly briefing under the Project was held on 28th May, 2013. The meeting was chaired by Secretary (Agriculture & Cooperation). Dr Shashanka Bhide, NCAER gave a presentation on the progress of NFSM-FAO supported work on the use of Personal Digital Assistant (PDAs) to collect information relating to production, and marketing related variables relevant for assessing emerging agricultural outlook scenario.

Twentieth monthly briefing under NCAER Project on “Outlook and Situation Analysis for Food Security” was held under the Chairmanship of Secretary (A&C) on 26th June, 2013. Prof. U.C. Mohanty, Centre for Atmospheric Sciences, Indian Institute of Technology, Delhi, made a presentation on “Assessment of Monsoon 2013” and Mr Abinash Verma, Director General, Indian Sugar Mills Association (ISMA), made a presentation on “Sugar and Sugarcane: Policies and Outlook for the Sector”.

Twenty first monthly briefing under NCAER Project on "Outlook and Situation Analysis for Food Security" was held on 5th September, 2013 under the chairmanship of Secretary (Agriculture & Cooperation). Dr Shashanka Bhide, Senior Research Counsellor, NCAER, presented the 'Draft Second Semi-annual Medium-term Agricultural Outlook Report'.

Workshop

A three days workshop on “OECD-FAO Agricultural Outlook Processes, Methods and Results” was organised on “Agricultural Outlook and Situation Analysis for Food Security” during 29th April–1st May, 2013. The first session was at Krishi Bhawan on April 29th and the remaining two days at National Agricultural Science Centre, ICAR, New Delhi. Senior officials in the ministry and a number of researchers participated in the workshop. Dr Holger Matthey from FAO, Rome and Dr Gregoire Tallard from OECD, Paris introduced the modelling work involved in the medium-term agricultural outlook assessment provided in the OECD-FAO reports.

A training workshop was held at NCAER during September 16–20 on FAO-OECD models of medium-term agricultural outlook. Dr Gregoire Tallard, OECD and Dr Holger Matthey, FAO provided the training. Participants included researchers from NCAER and Directorate of Economics and Statistics, Ministry of Agriculture.