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India set for a normal monsoon in 2013

After witnessing below average rains in 2012, India is all set to receive normal rains in 2013, strengthening the prospects of a plentiful farm output in India, which is among the world’s leading producer and consumer of Grains, Cotton, Sugar, and Pulses. The timely onset and progress of Southwest monsoons so far is satisfactory, but a smooth advancement and even distribution of rainfall in the coming weeks is crucial to boost the sowing of kharif crops. In this report we have covered important aspects of southwest monsoon and their impact on agricultural commodities. We have also listed out important factors that an investor should closely monitor during the monsoon season before taking investment decisions.

Significance of Southwest Monsoon

If we consider agriculture as the backbone of the Indian economy, then monsoon should certainly be considered to be the backbone of Indian agriculture. Despite the expansion in alternative forms of irrigation, agricultural dependency on monsoon is indispensable even today. Although increasing resilience of agricultural growth to monsoon deficiency is seen recently, its significance still continues with the fact that 55-60 percent of the net sown area in India is still rain fed.

The southwest monsoon rains, which India receives during the four months of the year (June to September), accounts for nearly 74 – 75 percent of the country’s total rainfall. Thus, it has a large bearing on the Kharif or summer crops like, Rice, soybean, groundnut, Tur, Urad, Cotton etc, which are totally dependent on the rainfall for their healthy growth. While the impact on summer crops may be more direct, there will also be an indirect impact on Rabi (winter) crops like wheat, Mustard seed and Chana. Rainfall during June-September season impacts ground water and reservoir levels and is also critical for irrigation of Rabi crops. Out of the total agricultural produce, nearly 53 percent comes from the kharif season (June-September) as compared to the rabi season (November-February), which accounts for 47 percent share in total production.

Thus southwest monsoon is vital and the agricultural schedule of India is governed by the same. Agriculture contributes about 14 percent of gross domestic product (GDP) in Asia’s third-largest economy and any divergence from the normal progress or distribution may have direct impact on the agricultural output and a cascading effect on the overall economy, food inflation and therefore, consumer spending in India.

A Normal Southwest Monsoon

The southwestern monsoons occur from June through September. As per the Indian Metrological department, monsoon is considered normal if the rainfall is between 96 percent and 104 percent of the long period average (50 years average) of 98 cm in the four months monsoon period beginning June 1.

Rainfall between 104 and 110 percent of the Long period Average is considered above normal while rainfall between 90 and 96 percent is considered below normal. On the other hand, rainfall of more than 110 percent of the average would mean an excessive monsoon while rainfall less than 90 percent of LPA is considered to be deficient monsoon.

Excessive or deficient rains adversely impact kharif crop output. Even if the overall monsoon is normal in the country, it does not necessarily mean a favorable crop condition. This is because the even distribution of rains over key crop regions is crucial for to boost sowing and productivity. For 2013, IMD in its First Long Range Forecast has predicted monsoon to be normal at 98 percent of the LPA. The IMD issues its official region wise and month wise forecasts during mid June which gives more clarity over the rainfall distribution.
Monsoon Report
Tuesday | June 11, 2013

Onset, Progress and Withdrawal of Southwest Monsoon

The southwest monsoon rains arrive in India from southern coast and usually hit the state of Kerala on June 1. After hitting the southern tip, they then progress northwards towards coastal Karnataka and other states of southern India taking a week’s time to cover the coffee, tea and rubber growing regions.

The monsoon then spreads to the rice-growing areas in the eastern parts of the country in the first 10 days including the top rice growing state of West Bengal.

It usually covers half of the country in the first fortnight and enters the oilseeds (Soybean and Groundnut) and Cotton producing areas of central India in the third week of June. By mid-July, the monsoon covers the entire country. Timely onset and progress has a significant impact on the sowing pattern and productivity of kharif crops.

Apart from the onset and progress, a timely withdrawal of monsoon also has a large bearing on the crop. Southwest monsoon usually starts retreating from 1st September from western Rajasthan. Withdrawal pattern impacts harvesting of kharif crops and sowing of Rabi crops which generally starts from October.

Monthly Rainfall Distribution

The monsoon rains in the months of June and July are considered crucial as sowing of kharif crops takes place during this period. However, the growth and productivity of the crops are dependent on the rainfall during August-September. The precipitation is highest during the months of July and August which accounts for over 34 percent and 31 percent of the total rainfall respectively. However, deficiency in a particular month may be overshadowed by good rains in the subsequent months.

Last year India witnessed deficient rains in the first two months of the monsoon season which led to delayed and lower sowing of kharif crops. However, revival in rainfall in the month of August proved beneficial for the kharif crops.

Source: IMD
Southwest Monsoon: Flashback 2012

After receiving bountiful rains in the year 2010 and 2011, India witnessed below normal rains in the monsoon season 2012. For the country as a whole, the rainfall for the season (June-September) was 92 percent of LPA. Seasonal Monsoon rains in all the four geographical regions were below normal except for central India where it was recorded at 96 percent of the LPA. Rains in Northwest India were recorded at 93 percent of LPA while in the Southern Peninsula and North eastern India it was 90 percent and 89 percent of the LPA.

Monthly rainfall distribution over the country as a whole during 2012 Monsoon season was 72 percent of LPA in June, 87 percent of LPA in July, 101 percent of LPA in August and 111 percent of LPA in September.

Deficient rains during the first two months of the monsoon season have not only delayed sowing but also led to fall in acreage of many kharif crops including Cotton, Maize, Rice and Pulses. Significant gain in the prices of most of the agricultural commodities was observed during period of June – July as a result of deficient rains in the domestic markets coupled with the worst drought in last 56 years in US. Although overall acreage remained lower, revival in monsoon was reflected in the sowing which recovered sharply after August rains as shown in the adjacent chart. Normal rains towards the end of the monsoon season in September also raised prospects of Rabi sowing amidst favorable soil conditions.

The revival of monsoon in August followed by commencement of harvesting of kharif crops in the domestic markets exerted downside pressure on the agri commodity prices. Total Area covered under Kharif season declined by 6.5 percent and stood at 1015 lakh ha in 2012-13 compared with 1086 lakh hectares in 2011-12. However, Rabi crop acreage rose marginally and stood at 615 lakh hectares (ha) in 2012-13 season compared with 605.7 lakh ha in 2011-12.

Prospects for 2013: Southwest monsoon

Indian Metrological department in April this year predicted monsoon to be normal at 98 percent of LPA for the season June-September 2013. Monsoon arrived in Kerala as per the schedule and in the first week of the four-month monsoon season, rainfall was recorded near normal. The timely arrival of monsoon this year has led to marginal improvement in water storage levels at major reservoirs. The live storage levels as on June 6 in about 85 important reservoirs stood at 31.521 billion cubic meters (BCM) or about 20 per cent of the storage capacity at full reservoir levels (FRL). In the corresponding period last year, the live storage in these reservoirs stood at 29.172 BCM or 19 per cent of the storage capacity at FRL.

IMD will issue its second Long Range forecast along with a regional forecast in mid June which will give more clarity over the monsoon in different geographical regions. Besides IMD, other weather forecasters have also predicted normal monsoon this season. Private weather forecaster Skymet Weather Services has forecast
India's average rainfall for June at 105%, July at 101%, August at 100% and September at 103%, with the four-month average at 102%. However, it would be too early to predict normal monsoon for the entire season at the current juncture. In fact, the Japan Agency for Marine Earth Science and Technology says that the Indian summer monsoon is expected to be below normal because of a negative Indian Ocean Dipole.

Impact of Monsoon on Agri commodities

The spatial and timely distribution of monsoon rains do have a significant impact on the agricultural produce and their prices. The kharif sowing commences with the onset of monsoon, while Rabi sowing takes place during October-December. The major Kharif crops grown in India during the monsoon season are Rice, Jowar, Bajra, Maize, Tur, Urad, Moong, Groundnut, Soybean, Cotton, Sugarcane etc. These Kharif crops contribute about 53 percent of the total agricultural produce and thus the fate of these crops are highly dependent on monsoon. Below are the major kharif crops grow during the monsoon season.

Impact of Monsoon on few of the major Kharif crops is as below:

**Rice**

Rice is the main Kharif crop in India and holds a major chunk of about 68 percent of the total food grain produced in the Kharif season. Almost 90 percent of the crop is grown in kharif season while 10 percent is sown in the Rabi season. Kharif planting starts in June while Rabi planting is done in October. The major Rice producing state, West Bengal and UP accounts for over 13-14 percent share in total Rice production in India. Bihar, Assam and other Northeastern states contributes more than 15 percent in total Rice.

A normal South west monsoon in the major Rice growing belt ensures timely transplanting and growth leading to higher productivity and vice versa. Among the major Rice producing states, west Bengal and Bihar has almost half the area which is rain fed, whereas, states of UP, Bihar, Tamilnadu, Punjab and Haryana has maximum area under irrigation.

Deficient rains in 2012 had adversely impacted paddy sowing as well as productivity in the rain fed areas, however the same was offset to some extent due to higher sowing in the irrigated area. Total production (Rabi+Kharif) in 2012-13 stood at 104 million tonnes against the consumption of around 90-92 million tonnes. India may continue to export rice as expected normal monsoon this season along with Comfortable carryover stocks of about 33.3 million tonnes as on June 1st, 2013 would keep supplies at comfortable levels.

<table>
<thead>
<tr>
<th>Indian Rice</th>
<th>Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Kharif Area (lakh hectares)</td>
<td>391</td>
</tr>
<tr>
<td>Kharif Area in 2012-13 (lakh hectares)</td>
<td>391.62</td>
</tr>
<tr>
<td>Kharif Area in 2011-12 (lakh hectares)</td>
<td>400.68</td>
</tr>
<tr>
<td>Kharif Production in 2012-13 (mn tn)</td>
<td>90.69</td>
</tr>
<tr>
<td>Total production in 2012-13 (mn tn)</td>
<td>104.2</td>
</tr>
<tr>
<td>Consumption (mn tn)</td>
<td>90.92</td>
</tr>
<tr>
<td>Stocks as on June 01, 2013 (mn tn)</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture
Pulses
Tur, masur (Lentil) and Urad are the major Pulses grown during the monsoon season. Kharif Pulses accounts for over 35 percent of the total Pulses production in India. Tur is the largest produced kharif pulse and accounts for over 43 percent share in kharif pulses production.

Kharif Pulses sowing in the rain fed areas starts with onset of monsoon. The major kharif pulses growing belts include Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh and Uttar Pradesh. A normal monsoon boost production of kharif pulses keeping prices under check and the spillover effect is felt on the overall pulses segment. However, deficient and untimely rains not only impact kharif pulses productivity but also delay sowing and harvesting pattern of Rabi crops.

In 2012-13, kharif production was adversely impacted due to delayed and deficient rains. This has pushed prices higher in the month of June and July. However, revival of rains in the month of August and higher Rabi pulses acreage exerted downside pressure on the prices. Although the total Pulses output increased by 5 percent to 18 million tonnes due to higher production of Rabi pulses, especially chana, the production Kharif pulses production declined by 1.8 percent to 5.95 million tonnes in 2012-13.

A normal monsoon progress of monsoon and well distributed rains in the major pulses growing belts along with higher Minimum Support Price should aid sowing in the coming season. Further, good rains will lead to favorable soil conditions for Rabi sowing as well. Thus, higher output shall reduce import dependency to some extent.

Oilseeds
Soybean is the largest produced oilseed in India grown in the kharif season and holds 46 percent share in the total oilseed production. MP, Maharashtra and Rajasthan are major soybean growing states accounting for 51 percent, 32 percent and 11 percent share in total production. Besides soybean, other oilseeds grown in the kharif season are Ground nut, sesamum, castor seed etc. These are grown mainly in Gujarat, AP, Tamil Nadu and Rajasthan.

Kharif Oilseeds planting in the irrigated areas commence in the month of May, while in the rain fed areas it starts by 2nd week of June. In 2012, although rains were delayed and deficient in many states, they were normal in the soybean bowl of India i.e. Madhya Pradesh. This led to higher sowing of soybean which stood at 105.88 lakh hectares in 2012-13 compared to 101.79 lakh hectares in 2011-12. However, scanty rains in rains in Gujarat, the largest groundnut and castor seed producing belt, adversely impacted sowing.
The planting of kharif oilseeds such as groundnut, sesamum and castor has started in states such as Andhra Pradesh, Karnataka and Tamil Nadu. Soybean planting shall commence in the second week of June with the progress of monsoon. Higher returns and normal monsoon may encourage farmers to opt for Soybean this season. However, India may continue to import edible oil to the extent of 50-55 percent of the consumption as the domestic production is not sufficient to cater to the rising consumption. Thus, besides domestic fundamentals, international prices also influence domestic oilseed prices to a large extent.

**Cotton**

Cotton is an important cash crop grown during the kharif season. Its production is spread widely across India with central India contributing more than 50 percent to the total Production. In the irrigated areas of North India, Cotton sowing starts in May while in the rain fed areas it commences with the progress of monsoon. Timely and well distributed rains boost cotton yield thereby aiding exports. India being the second largest exporter of Cotton in the world, Southwest monsoon has a significant impact on the global cotton fundamentals.

Drought situation in Gujarat and Maharashtra had hit cotton planting and productivity in 2012-13. Accordingly exports also declined considerably after hitting record levels in 2011-12. As per the reports from Ministry of Agriculture, cotton sowing for the ensuing cotton season 2013-14 stood at 11.70 lakh ha. Although an even distribution of southwest monsoon may raise hopes of better productivity, overall acreage may remain lower or at the previous year’s level as farmers may opt for more remunerative crops like soybean, guar etc this season.
Sugarcane

Sugarcane is another important cash crop in India which is dependent on the Southwest monsoon. Uttar Pradesh, Maharashtra, Karnataka and Tamil nadu are the major cane producing states in India.

In India, sugarcane is planted thrice a year - in October - November (pre-season or autumn planting, January (suru or spring planting) and July (adsali)). The crop remains in the fields for 15 to 18 months. Adsali planting is quite common in Maharashtra while autumn and spring plantings are more common in northern India.

Sugarcane and consequently sugar production in India typically follows a cyclical pattern, wherein, 2 to 3 years of higher production are followed by 3 to 4 years of lower production. The area under cultivation, yield of the cane crop and the recovery rate of sugar in the country has been found to be influenced by the climatic conditions in growing regions.

Despite record acreage last year, sugarcane as well as sugar production declined significantly as a result of poor rains. Planting for the ensuing 2013-14 season (October – September) is almost completed. However, acreage is considerably lower due to drought situation in Maharashtra and Karnataka. The sugarcane acreage this year has been lower at 42.09 lakh ha against last year’s 46.78 lakh ha due to water scarcity.

Although overall output may remain lower in the coming season, stock positions of 2012-13 are significantly higher due to poor exports. A normal monsoon and higher stocks may keep upside in the sugar prices capped.

Spices

Among spices, Turmeric sowing starts with the onset of monsoon while harvesting is done in January. Production of Turmeric in India is concentrated in the southern part of India with Erode in Tamil Nadu holding a lion share of around 36 percent in the total output while Nizamabad contributes 26%. Sangli, Cuddapah, Duggiralla are some of the other producers of the spice.

Chilli can be grown throughout the year but it is found to be predominantly grown during the period February-March and July-September. Andhra Pradesh is the largest producer contributing around 58% to domestic output, followed by Karnataka at 12 percent. Guntur in Andhra Pradesh is the single largest contributor to output.

Turmeric and Chilli output declined drastically in 2012-13 due to lower sowing and productivity. However, comfortable stocks from the previous record output kept prices under downside pressure. Considering the same, acreage is expected to remain normal this season.
Factors to watch out this monsoon season

- The IMD releases its weekly update on monsoon every Friday which gives an overview of the previous week and outlook for the subsequent week.
- Region wise distribution of rainfall helps in understanding the impact of monsoon on commodities more appropriately.
- Apart from this, one should closely monitor the sowing progress data of different crops released every Friday by the ministry of Agriculture.

A normal monsoon forecast along with a smooth progress of southwest monsoon so far has raised hopes of a bumper Kharif harvest in the coming season. However, it is too early to predict the same as the sowing and productivity of crops may depend on how the monsoon turns out in the month of July and August, which together accounts for around 65 percent of the total Southwest monsoon.

In addition to the overall monsoon rainfall, the distribution across regions and its withdrawal will also play a crucial role in determining the output of agricultural commodities.

Therefore, it is of prime importance that progress of southwest monsoon be watched closely in days to come in order to access its impact on prices of agricultural commodities.