

REPORT - 2

September 18th, 2018

Basmati Acreage & Yield Estimation in Punjab, Haryana, Delhi, Uttarakhand, Himachal Pradesh, Western Uttar Pradesh and Parts of Jammu & Kashmir

Basmati Export Development Foundation
APEDA, New Delhi



Basmati Survey - Report-2 (Season 2018)

This is the 2nd report for Basmati crop across 7 states totalling 81 districts. Detailed microscopic level information has been collected and compiled in this report. The report begins with an overview of the entire scenario of Basmati crop for the current season and then goes on to provide state wise and then district wise production details.



Geotrans Technologies Pvt. Ltd.

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We would like to thank the Director, AIREA and his complete team for providing the details on various aspects of farms/ farmers/ acreage and other relevant historical details for completing this survey.

The scientific team of Geotrans would like to thank all the farmers, traders, exporters, agriculture input dealers and others who participated in this survey programme and supported our field team. We expect that all stakeholders extend similar kind of support in subsequent reports for successful completion of project in time bound manner

TEAM GEOTRANS

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Executive Summary

Scope of the Report

The present report for Kharif 2018 covers the results of field survey-based acreage estimation & crop health reporting of rice area transplanted and Basmati varieties in the different districts of Punjab, Haryana, Delhi, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir. This time we have also taken the help of satellite images to generate the second opinion on the crop acreage, its spread & crop health to substantiate with our field report findings. Basis the crop health we have derived to the yield levels which lead us to give the initial estimates of the basmati crop production across various districts in studied 7 states. As we move further in the harvest season we will give more insights on the realized yields and the clearer picture that will immerse on the production of basmati crop. This report primarily covers the crop acreage to the level of district wise & state wise along with preliminary estimates on basmati crop production.

Study districts

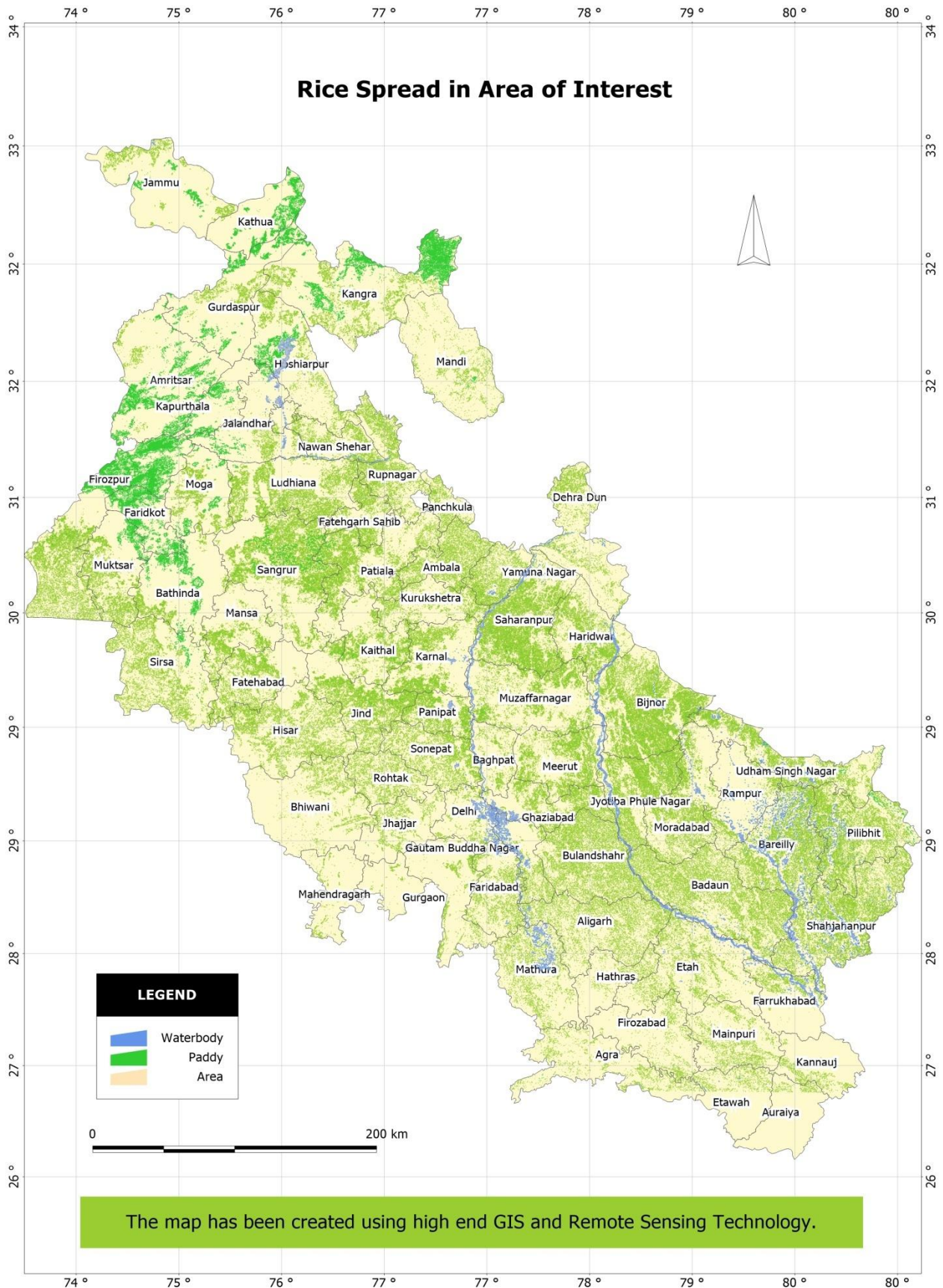
The study has been conducted in 81 districts, which includes 22 districts of Punjab, 21 districts of Haryana, 29 districts of Uttar Pradesh, 4 districts of Uttarakhand, 2 districts of Himachal Pradesh and 3 districts of Jammu & Kashmir and findings are elaborated in form of tables / text and pictures.

Rice Acreage

Apart from field survey techniques we have validated the data using high end satellite mapping technology. The spatial spread of the same is shown in the next page...

This year the total rice transplanted area in India has increased by 2.3% i.e. from 37.33 million ha to 38.19 million ha in the kharif 2018-19 season. The total rice crop in the studied 7 states & 81 districts has been increased by 2.54% in the kharif 2018-19 season. Although, the % area occupied by Basmati has reduced in major states of Haryana and Punjab by 2.87% and 2.67% respectively as observed during the second survey estimates, which will be further substantiated in subsequent reports from field visits. While in U.P. the area under Basmati has decreased by almost five thousand ha. Overall, Basmati area has decreased by 2.46% in comparison to last year. Whereas, the area under other Long Grain Non-Basmati (Sharbati & Sugandha) rice has slightly increased from 302,817 to 304,482 ha.

In Punjab, the rice transplanting has been done on 30,37,379 ha in 22 districts this year. Sangrur district has the largest area under rice (281,605 ha), followed by Ludhiana district (261,841 ha). The area under Basmati variety Pusa Basmati-1121 has reduced this year by 3.48% in comparison to last year. The area under Pusa Basmati-1509 has significantly increased from 40,168 ha. to 41,087ha in comparison to last year as the farmers shifted to PB 1509 from PB 1121. Farmers realized yields & higher return on PB 1509 along with shorter duration makes PB 1509 as preferred choice over PB 1121 in Punjab.



In Haryana, the total rice acreage based on field survey has been estimated at 13,29,000 ha in 20 districts, which is about 3.26% higher than last year. Karnal district has the highest transplanted area under rice (166,618 ha), followed by Kaithal district (164,542ha). However, overall Basmati area has reduced by 2.87% in comparison to last year.

In Uttar Pradesh, timely onset of monsoon, rice transplanting was started in time and continued in full swing during July end. A total of 13,36,066 ha. rice acreage based on field survey has been estimated as transplanted in the 27 districts of the state. Shahjahanpur district has the largest total rice area (1,97,622 ha), followed by Pilibhit (1,52,942 ha) and in districts like Muzaffarnagar, Bagpat, Meerut, many farmers have sown sugarcane replacing Basmati speculating higher sugarcane state advised prices from the state Govt and timely payment from sugarmills. The overall Basmati acreage in UP has been reduced by 1.96% over last year.

In Uttarakhand, a total of 129,635 ha rice acreage has been estimated as transplanted in the 4 studied districts. Udham Singh Nagar district has the largest area under rice (99,480 ha). This year overall basmati crop has been reduced to 1.5% across state, while in certain major districts of Uttarakhand basmati acreage, especially Pusa 1121 has been reduced more than 10%.

In Jammu & Kashmir, three districts have been taken up for study. The total rice area is estimated to be 137,000 ha. in these studied districts. The state has received normal rainfall this year. Area under basmati & rice is almost intact as farmer have lesser choice other than variety like Ranbir/ Basmati 307. These varieties pay well to farmers in recent past and has constant demand in market too.

In Himachal Pradesh, a total of 74,000 ha rice acreage based on field survey has been estimated in 11 districts (but we covered only two districts in our study). Basmati is majorly grown in Kangra and Mandi districts only. Kangra district has the highest area under basmati in the state. The farmers opted Permal varieties including PR-123. Farmers also preferred Pusa-Basmati 1509 over Pusa 1121.

State Wise Transplanted Area Basmati & Non-Basmati Long Grain Rice Area during Kharif 2018

Total rice transplanting in the studied 7 states has been increased by 2.54% from last year. Farmers shifted from crops like cotton / coarse cereals / basmati in Haryana/ Punjab & Western part of Uttar Pradesh. The total Basmati (notified varieties) area in these targeted 7 states & 81 districts has decreased by 2.46%. The notified Basmati varieties majorly comprises of Basmati-370, Basmati- 386, Type-3 (Dehraduni), Taraori, Ranbir/ Basmati 307, Pusa-1509, Pusa Basmati-1, CSR-30 and Pusa Basmati-1121

This year about forty to fifty thousand ha area under basmati has been shifted either to normal paddy or shifted to other major competitive crops like sugarcane/coarse cereals in comparison to last year.

**State Wise Transplanted Area,
Basmati & Non-Basmati long grain Rice Area during Kharif 2018 (Area in 000 ha.)**

S. No	State	Total Basmati	Pusa-1121	PB-1	Pusa-1509	Pusa-1401	Basmati 370	CSR-30	Type-3 & Others	Non-Notified	
										Sharbati	Sugandha
1	Haryana	633.7	428.5	41.2	33.6	43.1		87.3		5.8	
2	Punjab	546.6	482.2	23.1	41.1					5.9	
3	Uttar Pradesh	250.8	138.0	41.8	58.2				12.7	174.0	91.6
4	Uttarakhand	14.6	3.4	2.3	2.6				6.3	17.0	0.5
5	Jammu & Kashmir	62.6	8.2		0.3		54.1			10.1	
6	Himachal Pradesh	7.1	1.9		5.2					0.0	
7	Delhi	0.0									
Total		1515.3	1062.2	108.3	140.8	43.1	54.1	87.3	19.1	212.8	92

State Wise initial estimated production of Basmati & Non-Basmati long grain Rice during Kharif 2018

Field team has gathered the information on crop health in 7 studied areas and found that this year Haryana / Punjab/ Uttar Pradesh/ Uttarakhand basmati crop is in better condition if compared with that of last year. However, this is too early to say on the overall crop production but initial crop indicators show lightly better crop prospects over last year.

This year initial round of farmer interaction and various field visits suggests that this year about 55-58 lakh tons of basmati production is expected against 56.5 lakh tons production on last year. The exact figures of basmati production can be assessed once harvesting and crop cutting experiments will be taken in our subsequent reports.

**State Wise Production
Basmati & Non-Basmati long grain Rice during Kharif 2018 (production in 000 ton)**

S. No	State	Total Basmati	Pusa-1121	PB-1	Pusa-1509	Pusa-1401	Basmati 370	CSR-30	Type-3 & Others	Non-Notified	
										Sharbati	Sugandha
1	Haryana	2502.1	1582.22	221.6	169.3	267.2		261.7		20.5	
2	Punjab	2102.3	1788.69	110.1	202.6					22.2	
3	Uttar Pradesh	754.8	386.75	130.0	217.5				20.5	529.5	308.3
4	Uttarakhand	37.8	8.70	6.8	10.3				12.0	53.7	1.9
5	Jammu & Kashmir	134.4	25.24		1.1		108.02			35.9	
6	Himachal Pradesh	29.8	7.223		22.5					0.0	
Total		5561.2	3798.8	468.6	623.4	267.2	108.0	261.7	32.5	661.8	310.3

However, all the above figures are initial estimations and can be further vetted as and when we move near to harvesting season

This year initial reports shows that total basmati acreage has been reduced to 2.46% but with improved yield levels this year overall loss might be restricted to only about 1.43% as compared to last year

State wise Variety wise

Basmati Acreages (000 ha.) & Production (000 tons) of basmati rice basis initial estimations

S. No	State	Area (in 000 Ha.)			
		2017	2018	2017	2018
		Basmati Area		Basmati Production	
1	Haryana	652.4	633.7	2535.0	2502
2	Punjab	561.7	546.6	2142.2	2102
3	Uttar Pradesh	255.8	250.8	763.2	755
4	Uttarakhand	14.8	14.6	39.0	38
5	Jammu & Kashmir	61.5	62.6	132.2	134
6	Himachal Pradesh	7.0	7.1	29.5	30
Total		1553.2	1515.3	5641.1	5563

PB 1121

In the current season PB 1121 acreage in the 7 states have been reduced by 3.51% over last year. Farmer preferred high yielding Pusa-1509 in place of low yielding PB-1121. Moreover, PB 1509 also has shorter time period and early maturity trait if compared with PB 1121. Initial crop health report shows that PB 1121 is performing good in Haryana and Punjab while some crop damage reported in UP / Uttarakhand but over this year lesser crop infestation and timely application on remedial action by farmers on brown plant hopper & White bagged plant hopper reduces the crop losses. This year farmers are expected to harvest about 35-38 lakh tons of PB 1121 against the 39-40 lakh tons of harvest happened last year. However, final figures might differ once actual arrival will start coming in the market.

State wise Acreages (000 ha.) & Production (000 tons) of Pusa-basmati 1121

S. No	State	Area (in 000 Ha.)			
		2017	2018	2017	2018
		Basmati Area		Basmati Production	
1	Haryana	444	428.5	1612	1582.2
2	Punjab	500	482.2	1842	1788.7
3	Uttar Pradesh	144	138.0	403	386.8
4	Uttarakhand	4	3.4	9	8.7
5	Jammu & Kashmir	8	8.2	25	25.2
6	Himachal Pradesh	2	1.9	7	7.1
Total		1100.8	1062.2	3898.1	3798.7

Pusa-1509

This year Pusa-1509 increased by 5.7% over last year. It clearly indicates that farmer replaced PB 1121 with Pusa -1509 due to lesser price differential between these two prominent varieties. Farmer preferred high yielding Pusa-1509 in place of low yielding PB-1121. Also, PB-1509 shorter time period and early maturity trait preferred choice among farmers; PB 1509 crop health is also intact and expected to give slightly better yields in Haryana, UP & Punjab as compare to last year. Overall PB 1509 yields will be little bit on positive side as compare to last year, basis the current crop conditions

This year farmers are expected to harvest around 6.0-6.5 lakh tons of PB 1509 which could be around 5.8-6.0 lakh ton last year. However, final figures might differ once actual arrival will start coming in the market.

State wise Acreages (000 ha.) & Production (000 tons) of Pusa-basmati 1509

S. No	State	Area (in 000 Ha.)			
		2017	2018	2017	2018
		Basmati Area		Basmati Production	
1	Haryana	29.9	33.6	147.9	169.3
2	Punjab	39.5	41.1	192.9	202.6
3	Uttar Pradesh	56.0	58.2	206.3	217.5
4	Uttarakhand	2.5	2.6	10.1	10.3
5	Jammu & Kashmir	0.3	0.3	1.1	1.1
6	Himachal Pradesh	5.1	5.2	22.3	22.5
	Total	133.2	140.8	580.7	623.4

Pusa basmati - 1

Pusa basmati - 1 is continuously reducing in acreage over years and now is only preferred by farmers who take it for their self-consumption or places where exporters are demanding to grow for their specific markets. PB -1 still has good market potential in Europe & Saudi Arabia, which is about 1.5-2 lacs ton each.

State wise Acreages (000 ha.) & Production (000 tons) of Pusa-basmati 1

S. No	State	Area (in 000 Ha.)			
		2017	2018	2017	2018
		Basmati Area		Basmati Production	
1	Haryana	41.5	41.2	223.0	221.6
2	Punjab	23.1	23.1	110.2	110.1
3	Uttar Pradesh	42.8	41.8	133.0	130.0
4	Uttarakhand	2.3	2.3	7.6	6.8
	Total	109.7	108.3	473.9	468.6

Sharbati and Sugandha

The acreage under long grain non-basmati varieties (Sharbati and Sugandha) in these targeted districts has increased by 0.1%. This year Sharbati is transplanted on similar area as transplanted last year in Western & Central part of UP / Punjab & Haryana.

This year farmers are expected to harvest around 6-7 lakh tons of Sharbati which could be around 0.3% higher than last year. However, final figures might differ once actual arrival will start coming in the market.

State wise Acreages (000 ha.) & Production (000 tons) of Long Grain Non-Basmati (Sharbati)

		Area (in 000 Ha.)			
S. No	State	2017	2018	2017	2018
		Sharbati Area		Sharbati Production	
1	Haryana	6.0	5.8	21.2	20.5
2	Punjab	5.9	5.9	22.2	22.2
3	Uttar Pradesh	173.6	174.0	528.2	529.5
4	Uttarakhand	15.0	17.0	49.7	53.7
5	Jammu & Kashmir	10.1	10.1	35.9	35.9
Total		210.6	212.8	657.3	661.8

Sugandha, which is primarily complimenting PB-1121, has been not changed much. Usually Sugandha is not preferred by farmers as independent choice as long grain rice but grown for complimenting the PB 1121 variety in the market

This year farmers are expected to harvest around 3.1 lakh tons of Sugandha which could be around similar levels of last year. However, final figures might differ once actual arrival will start coming in the market.

State wise Acreages (000 ha.) & Production (000 tons) of Long Grain Non-Basmati (Sugandha)

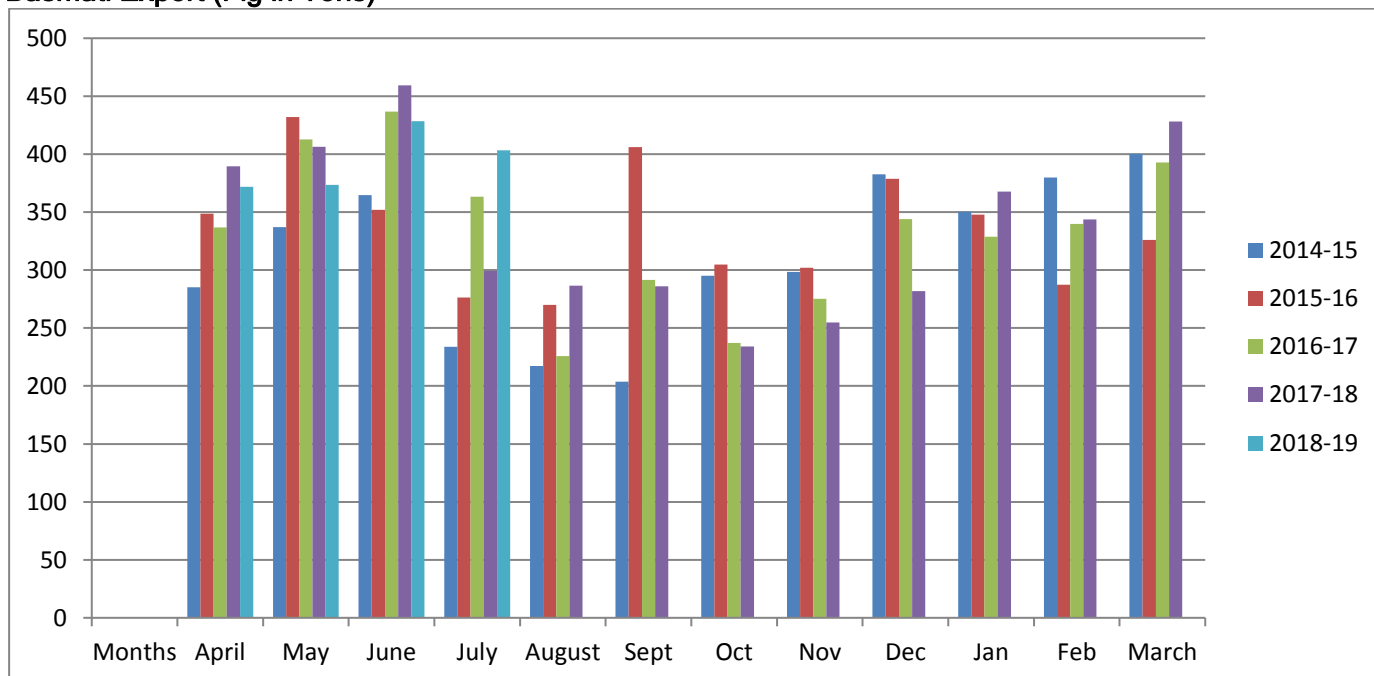
		Area (in 000 Ha.)			
S. No	State	2017	2018	2017	2018
		Sugandha Area		Sugandha Production	
1	Uttar Pradesh	91.72	91.2	308.3	306.99
2	Uttarakhand	0.49	0.5	1.9	1.93
Total		92.21	91.69	310.28	308.93

Project Background

Basmati rice is an important export commodity among the food grains exported from India. During the past few years, the Basmati export has been growing steadily, from 7.71 lakh metric tonnes in 2003 to an estimated 4.04 million metric tonnes in 2017-18 on robust demand from the traditional markets in West Asia. Almost 132 countries have been importing Basmati from India every year. Out of which, Iran, Saudi Arabia, UAE and Iraq are the major importers. Apart from India second is Pakistan from where Basmati is exported to many countries. Timely information on the area and likely production of the crop before the harvest helps exporters and other decision makers involved in Basmati trade to take decisions about the quantum and time of export. Realizing this potential, the Basmati Export Development Foundation (BEDF), New Delhi contracted M/s Geotrans Technologies Pvt. Ltd the work of field survey validation based acreage estimation for Basmati crop and for selected other non-notified varieties along with crop health monitoring and yield estimation and production for Basmati rice and non-notified varieties and questionnaire based sample survey of farmers, for 81 districts in the selected seven states i.e. Punjab, Haryana, Uttar Pradesh, Uttarakhand, Himachal Pradesh, and Jammu & Kashmir apart from Delhi. The field survey-based approach has been being applied to collect the information at block level to improve the accuracy further to a desired level. The Basmati varieties for which information is required include Basmati-370, Basmati- 386, Type-3 (Dehraduni), Taraori, Ranbir, Pusa-1509, Pusa Basmati-1, CSR-30 and Pusa Basmati-1121 and non-notified, non- Basmati (Sharbati, and Permal).

Basmati Rice export from India (Apr 2017-July 2018) (Fig in Tons)

Basmati Export (Fig in Tons)



Basmati Export (Fig qty in Tons and value in Rs. crore)

Months	2014-15		2015-16		2016-17		2017-18		2018-19	
	qty	value	qty	value	qty	value	qty	value	qty	value
April	285108	242828	348565	213672	336769	174586	389406	242040	371868	270029
May	337150	290474	431895	251399	412769	215543	406253	268295	373566	275132
June	364636	308190	351894	213011	436780	229824	459334	306447	428300	315887
July	233774	196313	276219	161864	363185	194315	299339	195313	403371	296490
August	217355	182883	270100	154122	225776	122830	286514	180585		
Sept	203733	165977	405980	236906	291636	155626	285853	174711		
Oct	295146	194556	304647	166454	237108	124029	234077	149492		
Nov	298274	210241	301920	158710	275149	140966	254676	165341		
Dec	382720	257997	378714	203263	343848	180567	281818	191924		
Jan	350320	227594	347789	180645	328677	182550	367761	251777		
Feb	379888	235181	287501	153088	339748	196093	343792	244430		
March	400195	250633	325944	171450	392731	235253	428076	307369		
Total	3748299	2762867	4031168	2264585	3984176	2152182	4036899	2677724	1577105	1157538

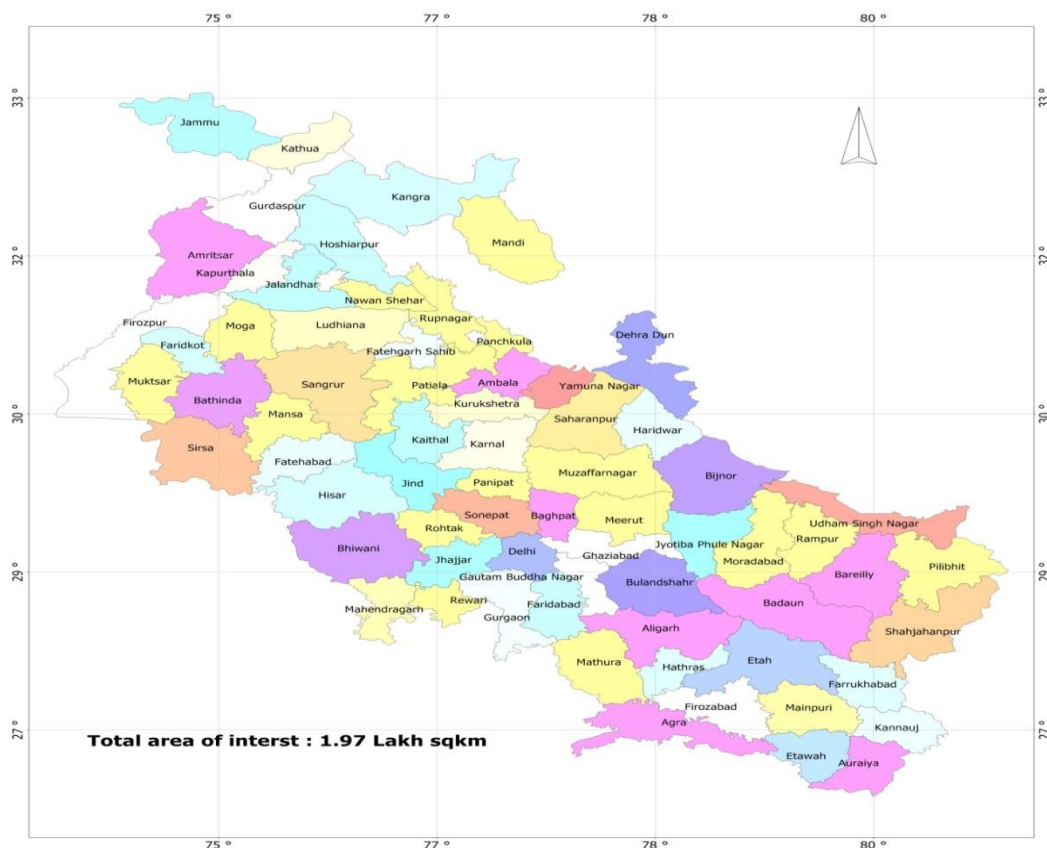
Scope of the current report

The present report being the report for Kharif-2018 covers the results of field survey based total rice and Basmati acreage / production under various varieties in different states.

Study Area Details

The study is confined to 79 districts, which includes 22 districts of Punjab (Amritsar, Barnala, Bathinda, Faridkot, Fatehgarh, Sahib, Firozpur, Fazilka, Gurdaspur, Pathankot, Hoshiarpur, Jalandhar, Kapurthala, Ludhiana, Mansa, Moga, Mohali, Muktsar, Nawanshahr, Patiala, Ropar, Sangrur and Tarantaran), 21 districts of Haryana (Ambala, Faridabad, Bhiwani, Fatehabad, Gurgaon, Hissar, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, MahendraGarh, Mewat, Palwal, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonapat, Yamunanagar), 3 Districts of Jammu & Kashmir (Jammu, Samba and Kathua), 27 districts of Uttar Pradesh (Agra, Aligarh, Auraiya, Baghpat, Bareilly, Bijnore, Budaun, Bulandshahr, Etah, Kasganj, Etawah, Ferozabad, Gautam Buddha Nagar, Ghaziabad, Hapur, Hathras, J. P. Nagar, Kannauj, Mainpuri, Mathura, Meerut, Moradabad, Sambhal, Muzaffarnagar, Shamli, Pilibhit, Rampur, Saharanpur, Shahjehanpur), 4 districts of Uttarakhand, 2 district of Himachal Pradesh and one of Delhi.

Districts of Study Area



Sample size selection & methodology

S.no	State	Districts coverage	No. of blocks	No. of farmers targeted	Share of Basmati Acreage
1	Haryana	21	93	1350	42%
2	Punjab	22	143	950	36%
3	Uttar Pradesh	27	255	720	19%
4	Uttarakhand	4	27	230	1%
5	Jammu & Kashmir	3	13	50	2%
	Total (Incl. Delhi / HP)	79	536	3300	100%

The number of farmer interaction may vary from one state to another based on their availability and responses. We will update the number of farmers in the above list as and when we cover more area and blocks

- Four different teams each with four experts have been deputed on field for collecting information from farmers
- Teams not only interviewed farmers but also clicked pictures of their fields along with same day newspaper
- Farmers pictures are geo-tagged for reference purpose
- Tele-callers have been deputed to collect the mandi prices & arrival trend so that seasonal trend can be ascertained.
- Technical team is working on the Agri-dash-boards for quick understanding and analysis.
- Field team will remain on ground till harvest period of basmati. They will post reports on the crop progress to APEDA regularly in the form of either formal or informal reports so that ARIEA members can be upraised according.

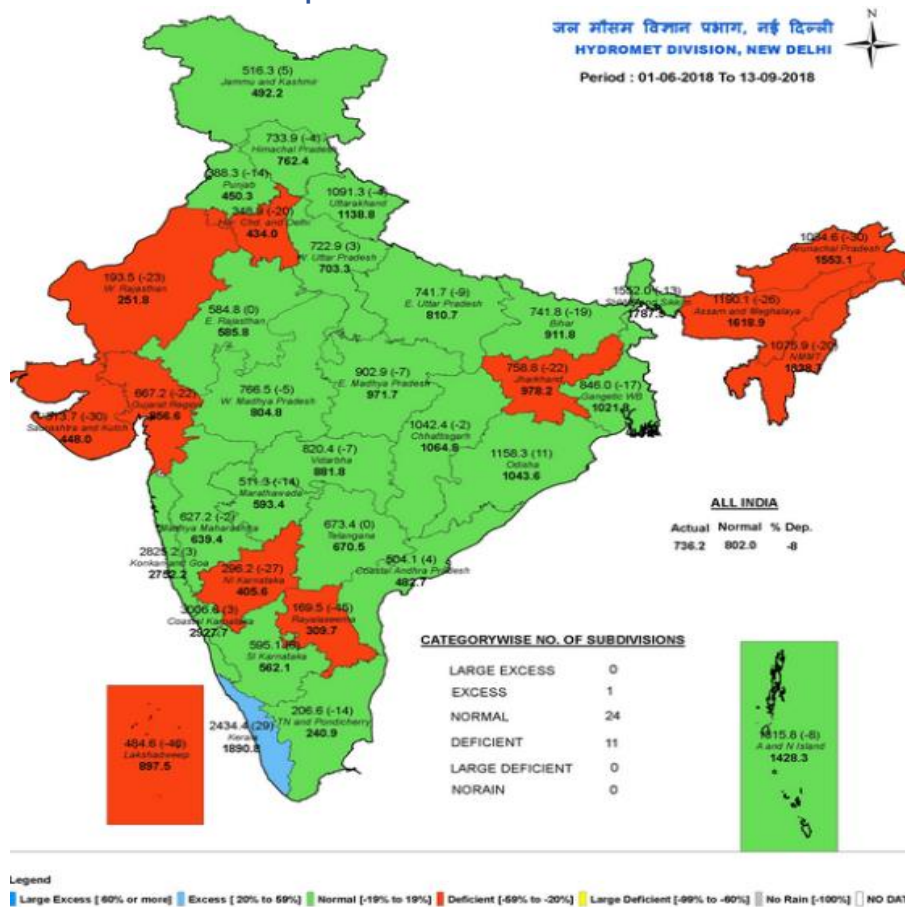
Chapter-3

Rainfall

Rainfall statistics in Major states (Haryana, Punjab, U.P, U.K, J&K, H.P, Delhi)

States	Period:01-06-2018 To 13-09-2018			
	ACTUAL (mm)	NORMAL (mm)	% DEP.	Rainfall Status
Haryana	340	424.8	-20%	Deficient
Punjab	382.3	448.3	-15%	Normal
Uttar Pradesh	714.8	696	3%	Normal
Uttarakhand	1086.9	1130.8	-4%	Normal
J & K	515.1	489.8	5%	Normal
HP	729.4	758.1	-4%	Normal
Delhi	566	594.1	-15%	Normal

Monsoon Map from 01-06-2016 to 13-09-2018



Ground Survey based Basmati Rice Acreage

HARYANA

In Haryana, the total rice acreage based on field survey has been estimated at 13,28,948 ha in 20 districts. The area under Basmati rice has reduced by 2.9%. Pusa Basmati- 1121 has decreased almost 3.39% over the last year. The area under CSR-30 has also reduced by almost 5,741ha. Under Pusa Basmati- 1509, almost 3,708 ha area has increases as comparison to last year. The district wise area figures under Basmati varieties have been given in annexure tables.

PUNJAB

A total of 30.4 lakh ha. area has been transplanted in the state this year. Whereas last year 29.2 lakh ha. area was transplanted. Basmati has occupied 5.47 lakh ha. and the area under Basmati varieties has reduced by almost 2.67% in comparison to the last year. After Pusa Basmati-1121, the other variety transplanted in the major area state under Basmati is Pusa Basmati-1509 (41,087 ha.). Pusa -1121 has reduced to 482,156 ha. i.e. 3.48% in comparison to last year. Pusa Basmati-1 has almost same acreage as that of last year. Pusa Basmati-1509 has increased from 39,500 ha. in the year 2017 to 41,087 ha in 2018. This varietal shift is due to price economy prevailed last year. The district wise area figures under Basmati varieties have been given in annexure tables.

UTTAR PRADESH

In overall districts of Uttar Pradesh rice transplanted on a total 59.7 lakh ha area which is almost similar to last year. The area under Pusa Basmati- 1121 has been reported 1.38 lakh ha. (a reduction of 4.2%). and Pusa Basmati-1509 has increased to 58,173 ha. (4.0% increased). Long grain Non- Notified Non-Basmati variety Sugandha has decreased by 0.6%. The crop health is good. The district wise area figures under Basmati varieties have been given in annexure tables.

UTTARAKHAND

The state has received a normal rainfall during the months of June, July & August. Pusa Basmati-1509 has increased to 2,583 ha. area in the state in comparison to 2,533 ha. last year. Overall Basmati area in Uttarakhand has been reduced by 1.5%. The district wise area figures under Basmati varieties have been given in annexure tables.

JAMMU & KASHMIR

The rice transplanting in Jammu & Kashmir is estimated 1.14 lakh ha. in three study districts. The major area in Jammu is under Basmati 370/ Ranbir. In Kathua Pusa Basmati-1121 has increased during the last 3 years. The farmers didn't preferred Pusa Basmati-1509 in both Jammu and Kathua districts if compared with other state farmers like Punjab/ Haryana. The district wise area figures under Basmati varieties have been given in annexure tables.

HIMACHAL PRADESH

About 76,000 ha. area has been transplanted in major Basmati growing district Kangra and Mandi in the state this year. Out of which, 7,000 ha. is estimated to be under Basmati varieties. The district wise area figures under Basmati varieties have been given in annexure tables.

DELHI

Almost 1000 ha Basmati area has been transplanted in Delhi. The district wise area figures under Basmati varieties have been given in annexure tables.

District wise Basmati details

Haryana

District-wise acreage (000ha.) under Basmati rice in Haryana during Kharif 2018

District	Pusa Basmati 1121	Pusa 1509	CSR-30	PB -1	PB 1401	Sharbati
Ambala	5.0	0.14	8.6	0.2	0	0.1
Bhiwani	18.6	0.00	0.0	0.0	0	0.1
Faridabad + Palwal	19.4	0.32	0.0	2.7	0	0.3
Fatehabad	1.9	0.00	0.0	0.2	0	0.3
Gurgaon	18.9	1.68	1.0	12.3	7.9	0.3
Hisar	35.9	0.53	1.0	0.8	0	0.1
Jajjhar	39.0	1.07	0.3	0.0	0	0.3
Jind	60.0	2.32	5.9	7.4	0	0.3
Kaithal	32.6	3.78	22.4	0.1	0	0.3
Karnal	34.9	11.23	24.7	0.2	0	0.3
Kurukshetra	10.3	3.21	12.6	2.3	0	0.1
Mewat	6.5	0.00	0.0	0.0	0	0.3
MahendraGarh	0.0	0.00	0.0	0.0	0	0.3
Panchkula	0.0	0.00	0.0	0.0	0	0.3
Panipat	46.9	3.17	7.3	1.8	0	0.3
Rewari	1.0	0.00	0.0	0.0	0	0.3
Rohtak	30.3	0.06	0.1	0.0	0	0.3
Sirsa	7.6	3.81	0.3	6.2	35.2	1.1
Sonepat	58.9	1.52	2.8	0.0	0	0.5
Yamunanagar	0.8	0.77	0.4	6.7	0	0.3
TOTAL HARYANA	428.5	33.59	87.3	41.2	43.1	5.8



% change in acreage (000ha.) of Basmati & Non-Basmati varieties of rice in 2018 over 2017 in Haryana

S.no	Variety	Acreage 2017	Acreage 2018	% Change
1	Basmati			
	Pusa Basmati-1121	443.5	428.5	-3.4%
	Pusa Basmati-1	41.5	41.2	-0.8%
	Pusa Basmati-1401	44.1	43.1	-2.2%
	Pusa Basmati-1509	29.9	33.6	12.4%
	CSR-30	93.1	87.3	-6.2%
2	Non-Basmati Long Grain			
	Sharbati	6.03	5.82	-3.5%

Punjab

District-wise acreage (000ha.) Under Basmati rice in Punjab during Kharif 2018

District	Pusa Basmati 1121	Pusa 1509	Bas-386	PB -1
Amritsar	72.3	32.6	0.4	
Barnala	1.8	0.0		0.5
Bhatinda	9.1	0.0		
Faridkot	19.7	0.0		
Fatehgarh Sahib	7.7	0.0		1.9
Fazilka	66.1	0.0		
Firozpur	36.2	0.0		
Gurdaspur	41.1	0.1		
Pathankot	2.7	0.0		
Hoshiarpur	5.9	0.0		
Jalandhar	9.7	0.8		
Kapurthala	7.7	0.0		
Ludhiana	17.4	2.2		3.2
Mansa	0.9	0.0		
Moga	17.0	0.0		0.1
Mohali	3.9	0.0		
Muktsar	42.4	0.0		8.3
Nawanshahr	4.6	0.2		
Patiala	15.8	1.4		2.6
Rupnagar	2.9	0.0		
Sangrur	25.4	0.0		6.4
Tarantaran	71.8	3.8		
Total	482.2	41.1	0.4	23.0



% change in acreage (000ha.) of Basmati & Non-Basmati varieties of rice in 2018 over 2017 in Punjab

S.no	Variety	Acreage 2017	Acreage 2018	% Change
1	<i>Basmati</i>			
	Pusa Basmati-1121	499.5	482.2	-3.5%
	Pusa Basmati-1	41.5	23.0	-0.8%
	Pusa Basmati-1509	39.5	41.1	4.0%
	Bas-386	0.4	0.4	0.0%
	<i>Non-Basmati Long Grain</i>			
2	Sharbati	6.0	5.8	-3.5%

Uttar Pradesh

District-wise acreage (000ha.) under Basmati rice in U.P during Kharif 2018

District	Type-3 & Others	Pusa Basmati-1121	Pusa Basmati-1509	Pusa Basmati- 1 & 6	Sharbati	Sugandha
Agra		0.31	0.48	0.07		2.18
Aligarh		14.04	5.16	4.33	2.48	9.06
Auraiya	0.7	1.01	0.16	0.05	1.75	0.19
Baghpat	0.0	1.83	0.54	1.17	0.24	0.85
Bareilly	0.7	1.16	0.63	0.43	46.38	0.49
Bijnore	0.0	1.44	2.38	3.18	18.07	1.34
Budaun	9.3	1.88	2.07	0.74	20.75	1.97
Bulandshahr	0.0	19.31	4.70	5.73	4.48	14.78
Etah+Kasganj	0.0	4.71	3.14	0.48	0.88	7.41
Farukhabad	0.0	1.69	0.85	0.06	0.14	2.39
Firozabad	0.0	2.18	1.31	0.24	0.12	5.32
Etawah	0.0	5.99	2.57	0.16	0.06	4.59
Gautam Buddha Nagar	0.0	17.11	0.78	1.76	1.38	0.85
Ghaziabad+Hapur	0.0	4.66	3.24	1.40	3.48	4.87
Hathras	0.0	3.79	2.41	0.79	0.70	5.90
Mathura	0.0	22.48	3.43	1.04	0.28	3.42
Mainpuri	0.0	13.86	2.61	0.20	0.18	5.97
Meerut	0.0	2.05	2.84	2.32	0.63	3.19
Moradabad	0.0	1.07	2.26	0.30	9.30	2.38
J. P. Nagar	0.0	1.16	2.00	0.96	7.23	2.76
Kannauj	0.0	0.62	1.41	0.16	0.14	1.42
Muzaffarnagar+Shamli	0.1	4.14	2.54	3.88	1.26	1.99
Pilibhit	0.0	0.81	3.41	0.16	5.41	0.38
Rampur	0.0	0.61	1.29	0.14	23.97	0.19
Saharanpur	0.2	6.49	3.39	11.41	7.46	2.88
Shahjehanpur	1.7	1.32	0.83	0.27	8.69	0.43
Sambhal	0.0	1.42	1.74	0.39	8.53	4.39
Total	12.7	137.12	58.17	41.82	173.97	91.59



% change in acreage (000ha.) of Basmati & Non-Basmati varieties of rice in 2018 over 2017 in U.P

S.no	Variety	Acreage 2017	Acreage 2018	% Change
1	<i>Basmati</i>			
	Pusa Basmati-1121	144.1	137.1	-4.9%
	Pusa Basmati-1 & 6	42.8	41.8	-2.4%
	Pusa Basmati-1509	56.0	58.2	4.0%
	Type 3 & Others	12.8	12.7	-1.0%
<i>Non-Basmati Long Grain</i>				
2	Sharbati	173.6	174.0	0.2%
	Sugandha	91.7	91.6	-0.1%

Uttarakhand

District-wise acreage (000ha.) under Basmati rice in Uttarakhand during Kharif 2018

District	Type-3 & Others	Pusa Basmati- 1121	Pusa Basmati- 1509	Pusa Basmati- 1	Sharbati	Sugandha
Dehradun	2.4	0.2	0.2	0.0	2.6	0.1
Haridwar	2.3	1.5	0.5	2.1	4.2	0.3
Nainital	0.9	0.3	0.3	0.0	1.5	0.0
U S Nagar	0.7	1.4	1.5	0.1	8.6	0.2
Total	6.3	3.4	2.4	2.3	17.0	0.5



% change in acreage (000ha.) of Basmati & Non-Basmati varieties of rice in 2018 over 2017 in Uttarakhand

S.no	Variety	Acreage 2017	Acreage 2018	% Change
1	<i>Basmati</i>			
	Pusa Basmati-1121	3.5	3.4	-4.4%
	Pusa Basmati-1	2.3	2.3	-1.0%
	Pusa Basmati-1509	2.5	2.4	-3.5%
	Type 3 & Others	6.4	6.3	-1.5%
<i>Non-Basmati Long Grain</i>				
2	Sharbati	15.0	17.0	13.3%
	Sugandha	0.5	0.5	0.0%

Jammu & Kashmir

District-wise acreage (000ha.) under Basmati rice in J&K during Kharif 2018

District	Pusa Basmati- 1121	Pusa Basmati 1509	Basmati 370/ Ranbir	Sharbati
Jammu	1.5	0.0	47.9	9.1
Kathua	7.2	0.2	3.8	0.7
Samba	0.6	0.1	2.2	0.3
Total	9.3	0.3	53.9	10.1

% change in acreage(000ha.) of Basmati & Non-Basmati varieties of rice in 2018 over 2017 in J&K

S.no	Variety	Acreage 2017	Acreage 2018	% Change
1	<i>Basmati</i>			
	Pusa Basmati-1121	8.2	9.3	13.2%
	Pusa Basmati 1509	0.3	0.3	0.0%
	Basmati 370/ Ranbir	53.1	53.9	1.5%
2	<i>Non-Basmati Long Grain</i>			
	Sharbati	10.1	10.1	0.0%

Himachal Pradesh

District-wise acreage (000ha.) under Basmati rice in H.P during Kharif 2018

District	Pusa Basmati 1121	Pusa Basmati 1509
Kangra*	1.92	1.071
Mandi*		4.08
Total	1.92	5.15

% change in acreage(000ha.) of Basmati & Non-Basmati varieties of rice in 2018 over 2017 in H.P

S.no	Variety	Acreage 2017	Acreage 2018	% Change
1	<i>Basmati</i>			
	Pusa Basmati 1121	1.92	1.92	0.0%
	Pusa Basmati 1509	5.1	5.15	1.0%



Chapter-5

District wise Production Details

Basmati & Long Grain Non- Notified Non-Basmati

(Production in 000 tons)

All the below stated figures are based on the initial feedback received from farmers and crop health conditions. All the below figures are derived on the statistical model using sampling techniques. Such figures will quickly give an idea on the overall district level and block-level detailing on acreage & tentative production, which might differ from actual figures. As and when we progress in the season, we will do corrections if we observe something different from our currently reported figures.

Haryana (Production 000 tons)

District	Total Basmati	Pusa Basmati 1121	Pusa 1509	CSR-30	PB -1	PB 1401	Sharbati
Ambala	35.1	14.0	0.6	19.4	1.1	0.0	0.4
Bhiwani	59.5	59.5	0.0	0.0	0.0	0.0	0.3
Faridabad + Palwal	70.0	56.7	1.3	0.0	12.0	0.0	1.1
Fatehabad	6.5	5.7	0.0	0.0	0.7	0.0	0.9
Gurgaon	224.7	76.7	9.1	2.9	82.5	53.5	1.1
Hisar	153.3	143.4	3.1	2.8	4.1	0.0	0.2
Jajjhar	134.7	129.6	4.5	0.6	0.0	0.0	0.9
Jind	345.5	283.3	10.6	17.3	34.2	0.0	0.9
Kaithal	208.2	122.3	19.6	65.7	0.5	0.0	0.9
Kamal	276.8	145.2	56.4	74.3	1.0	0.0	0.8
Kurukshetra	108.0	40.8	15.9	39.2	12.1	0.0	0.4
Mewat	22.6	22.6	0.0	0.0	0.0	0.0	1.0
MahendraGarh	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Panchkula	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Panipat	196.8	145.7	15.5	28.3	7.2	0.0	1.2
Rewari	3.9	3.9	0.0	0.0	0.0	0.0	1.0
Rohtak	104.8	104.6	0.0	0.1	0.0	0.0	0.9
Sirsa	305.5	37.4	22.3	0.8	31.3	213.7	4.3
Sonepat	203.0	187.5	6.4	9.1	0.0	0.0	1.6
Yamunanagar	43.3	3.3	4.0	1.2	34.8	0.0	0.9
TOTAL HARYANA	2502.1	1582.2	169.3	261.7	221.6	267.2	20.3

Punjab (Production 000 tons)

District	Total Basmati	Pusa Basmati 1121	Pusa 1509	Bas-386	PB -1
Amritsar	434.0	270.7	162.3	0.9	0.0
Barnala	9.6	7.2	0.0	0.0	2.4
Bhatinda	30.9	30.9	0.0	0.0	0.0
Faridkot	80.8	80.8	0.0	0.0	0.0
Fatehgarh Sahib	40.0	30.8	0.0	0.0	9.2
Fazilka	265.1	265.1	0.0	0.0	0.0
Firozpur	131.2	131.2	0.0	0.0	0.0
Gurdaspur	150.8	150.3	0.5	0.0	0.0
Pathankot	7.7	7.7	0.0	0.0	0.0
Hoshiarpur	22.5	22.5	0.0	0.0	0.0
Jalandhar	36.9	36.6	0.4	0.0	0.0
Kapurthala	27.6	27.6	0.0	0.0	0.0
Ludhiana	90.8	65.0	11.5	0.0	14.3
Mansa	3.3	3.3	0.0	0.0	0.0
Moga	43.4	42.9	0.0	0.0	0.6
Mohali	12.0	12.0	0.0	0.0	0.0
Muktsar	191.4	151.5	0.0	0.0	39.9
Nawanshahar	17.5	16.4	1.1	0.0	0.0
Patiala	82.2	62.6	6.9	0.0	12.6
Rupnagar	9.9	9.8	0.1	0.0	0.0
Sangrur	128.2	97.1	0.0	0.0	31.1
Tarantaran	286.7	266.9	19.8	0.0	0.0
Total	2102.3	1788.7	202.6	0.9	110.1

Uttar Pradesh (Production 000 tons)

District	Total Basmati	Pusa Basmati-1121	Pusa Basmati-1509	Pusa Basmati-1 & 6	Type-3 & Others	Sharbati	Sugandha
Agra	2.9	0.8	1.8	0.2	0.0		6.4
Aligarh	76.4	42.6	21.9	11.9	0.0	8.4	28.0
Auraiya	4.3	2.5	0.5	0.2	1.1	4.8	0.6
Baghpat	10.7	5.2	2.1	3.4	0.0	0.8	2.3
Bareilly	7.8	3.1	2.2	1.2	1.3	135.2	1.6
Bijnore	20.9	3.4	8.3	9.2	0.0	56.0	4.8
Budaun	27.3	4.8	6.1	2.2	14.3	62.0	6.8
Bulandshahr	92.8	54.6	19.0	19.1	0.0	15.3	52.3
Etah+Kasganj	23.1	11.5	10.1	1.5	0.0	2.5	23.5
Farukhabad	7.1	4.4	2.5	0.2	0.0	0.4	6.9
Firozabad	11.4	5.8	4.9	0.7	0.0	0.3	17.2

Etawah	26.5	17.2	8.8	0.5	0.0	0.2	13.5
Gautam Buddha Nagar	59.7	50.5	3.3	5.9	0.0	4.7	2.9
Ghaziabad+Hapur	35.1	15.9	14.6	4.6	0.0	10.1	18.0
Hathras	21.6	11.0	8.0	2.5	0.0	2.1	19.3
Mathura	83.9	67.7	12.8	3.4	0.0	0.9	13.6
Mainpuri	45.9	37.0	8.2	0.7	0.0	0.6	19.8
Meerut	24.1	5.1	11.5	7.4	0.1	2.0	12.1
Moradabad	12.5	3.3	8.3	1.0	0.0	30.9	7.9
J. P. Nagar	13.0	3.0	7.1	2.9	0.0	23.5	8.9
Kannauj	6.2	1.6	4.2	0.4	0.0	0.4	4.3
Muzaffarnagar+Sahamli	32.8	9.6	10.4	12.6	0.2	3.6	8.0
Pilibhit	16.0	2.4	13.1	0.5	0.0	16.6	1.4
Rampur	7.1	1.8	4.8	0.5	0.0	71.7	0.8
Saharanpur	63.3	14.6	13.1	35.2	0.5	22.1	10.5
Shahjehanpur	10.7	3.9	3.2	0.8	2.9	28.8	1.4
Sambhal	11.5	3.6	6.6	1.3	0.0	25.4	15.4
Total	754.8	386.8	217.5	130.0	20.5	529.4	308.3

Uttarakhand (Production 000 tons)

District	Total Basmati	Pusa Basmati-1121	Pusa Basmati-1509	Pusa Basmati-1	Type-3 & Others	Sharbati	Sugandha
Dehradun	5.8	0.5	0.7	0.0	4.6	7.8	0.2
Haridwar	17.3	4.1	2.4	6.4	4.4	15.8	1.1
Nainital	3.3	0.7	0.9	0.0	1.7	4.9	0.0
U S Nagar	11.5	3.4	6.3	0.4	1.4	25.4	0.6
Total	37.8	8.7	10.3	6.8	12.0	53.9	1.9

Jammu & Kashmir (Production 000 tons)

District	Pusa Basmati-1121	Pusa Basmati 1509	Basmati 370/ Ranbir	Sharbati
Jammu	4.7	0.0	96.0	32.3
Kathua	23.7	0.8	7.7	2.6
Samba	0.2	0.3	3.9	1.0
Total	28.6	1.1	107.5	35.9

Himachal Pradesh (Production 000 tons)

District	Pusa Basmati 1121	Pusa Basmati 1509
Kangra*	7.22	4.771305
Mandi*		17.77248
Total	7	23

Chapter-6

Rainfall (District wise rainfall data)

The Basmati growing belt has witnessed normal to deficient rainfall. Punjab, Uttarakhand, U.P, H.P. & Delhi has witnessed normal rainfall while Haryana has witnessed deficient rainfall this year. The rainfall during 1-06-2018 to 12 -09-2018 in meteorological divisions under study area is given in below table and the rainfall in prominent districts (Haryana, Punjab, U.P, U.K, J & K, H.P, Delhi)

Haryana/Districts	Period:01-06-2018 To12-09-2018			Rainfall Status
	ACTUAL (mm)	NORMAL (mm)	% DEP.	
AMBALA	566.8	822.0	-31%	Deficient
BHIWANI	213.4	325.0	-34%	Deficient
FARIDABAD	491.3	555.5	-12%	Normal
FATEHABAD	125.7	258.0	-51%	Deficient
GURGAON	339.0	445.3	-24%	Deficient
HISAR	161.4	298.7	-46%	Deficient
JHAJJAR	382.3	393.4	-3%	Normal
JIND	280.3	375.8	-25%	Deficient
KAITHAL	301.8	350.0	-14%	Normal
KARNAL	662.8	528.2	25%	Excess
KURUKSHETRA	528.3	515.2	3%	Normal
MAHENDRAGARH	357.1	376.2	-5%	Normal
MEWAT	477.7	466.9	2%	Normal
PALWAL	345.9	404.8	-15%	Normal
PANCHKULA	431.1	874.2	-51%	Deficient
PANIPAT	309.7	481.9	-36%	Deficient
REWARI	429.2	410.9	4%	Normal
ROHTAK	249.8	483.9	-48%	Deficient
SIRSA	178.7	221.0	-19%	Normal
SONIPAT	291.8	499.4	-42%	Deficient
YAMUNANAGAR	826.5	832.9	-1%	Normal
TOTAL HARYANA	340.0	424.8	-20%	Deficient

Punjab/Districts	Period:01-06-2018 To12-09-2018			Rainfall Status
	ACTUAL (mm)	NORMAL (mm)	% DEP.	
AMRITSAR	261.0	497.0	-47%	Deficient
BARNALA	394.5	314.7	25%	Excess
BATHINDA	156.9	286.8	-45%	Deficient
FARIDKOT	288.3	300.0	-4%	Normal
FATEHGARH SAHIB	393.6	487.6	-19%	Normal
FIROZPUR	76.7	323.8	-76%	Large Deficient
GURDASPUR	883.1	768.5	15%	Normal
HOSHIARPUR	552.7	654.6	-16%	Normal
JALANDHAR	347.6	504.3	-39%	Deficient
KAPURTHALA	281.6	380.9	-31%	Deficient
LUDHIANA	468.6	483.8	-26%	Normal
MANSA	108.0	296.5	-64%	Large Deficient
MOGA	233.3	327.3	-29%	Deficient
MUKTSAR	205.8	292.7	-30%	Deficient
NAWASHAHR	823.6	715.6	15%	Normal

Punjab/Districts		Period:01-06-2018 To12-09-2018		
PATIALA	534.1	554.0	-4%	Normal
RUPNAGAR	968.3	670.4	44%	Excess
SANGRUR	344.9	394.6	-13%	Normal
SAS NAGAR	606.9	590.3	3%	Normal
TARN TARAN	267.5	310.7	-14%	Normal
Punjab Total	382.3	448.3	-15%	Normal

Uttar Pradesh/District		Period:01-06-2018 To12-09-2018		
	ACTUAL (mm)	NORMAL (mm)	% DEP.	Rainfall Status
Agra	709.8	624.1	14%	Normal
Aligarh	576.2	586.2	-2%	Normal
Auraiya	539.3	630.7	-14%	Normal
Baghpat	594.6	688.8	-14%	Normal
Bareilly	670.0	497.5	35%	Excess
Bijnore	1137.5	776.5	46%	Excess
Budaun	958.0	834.6	15%	Normal
Bulandshahr	404.4	596.9	-32%	Deficient
Etah	840.3	555.9	51%	Excess
Farukhabad	656.3	659.9	-1%	Normal
Firozabad	739.3	595.4	24%	Excess
Etawah	543.0	495.8	10%	Normal
Gautam Buddha Nagar	337.0	574.3	-41%	Deficient
Ghaziabad+Hapur	799.1	720.5	11%	Normal
Mathura	590.5	695.7	-15%	Normal
Mainpuri	765.4	754.3	1%	Normal
Meerut	535.5	700.8	-24%	Deficient
Moradabad	863.9	629.4	37%	Excess
J.P.Nagar	827.0	861.6	-4%	Normal
Kannauj	683.5	558.0	22%	Excess
Muzaffarnagar+Shamli	335.6	705.4	-52%	Deficient
Pilibhit	704.9	587.2	20%	Excess
Rampur	778.7	527.9	47%	Excess
Saharanpur	621.8	705.2	-12%	Normal
Shahjehanpur	917.9	778.4	18%	Normal
UP Total	714.8	696.0	3%	Normal

Uttarakhand/District		Period:01-06-2018 To12-09-2018		
	ACTUAL (mm)	NORMAL (mm)	% DEP.	Rainfall Status
ALMORA	486.8	776.1	-37%	Deficient
BAGESHWAR	1421.3	776.1	83%	Large Deficient
CHAMOLI	1130.2	800.8	41%	Excess
CHAMPAWAT	1241.1	1210.1	3%	Normal
DEHRADUN	1594.6	1684.4	-5%	Normal
HARIDWAR	1100.0	892.4	23%	Excess
NANITAL	1413.7	1304.8	8%	Normal
PAURI GARHWAL	705.1	1124.7	-37%	Deficient
PITHORAGARH	1461.5	1558.9	-6%	Normal
RUDRAPRAYAG	1272.9	1574.9	-19%	Normal
TEHRI GARWAL	650.8	970.4	-33%	Deficient

UDHAM SINGH NAGAR	709.4	1011.3	-30%	Deficient
UTTARKASHI	978.9	1036.8	-6%	Deficient
Uttarakhand Total	1086.9	1130.8	-4%	Normal

J & K/District	Period:01-06-2018 To12-09-2018			
	ACTUAL (mm)	NORMAL (mm)	% DEP.	Rainfall Status
Jammu	1136.0	809.2	40%	Excess
Kathua	1024.8	920.0	11%	Normal
Samba	746.9	809.2	-8%	Normal
J & K Total	515.1	489.8	5%	Normal

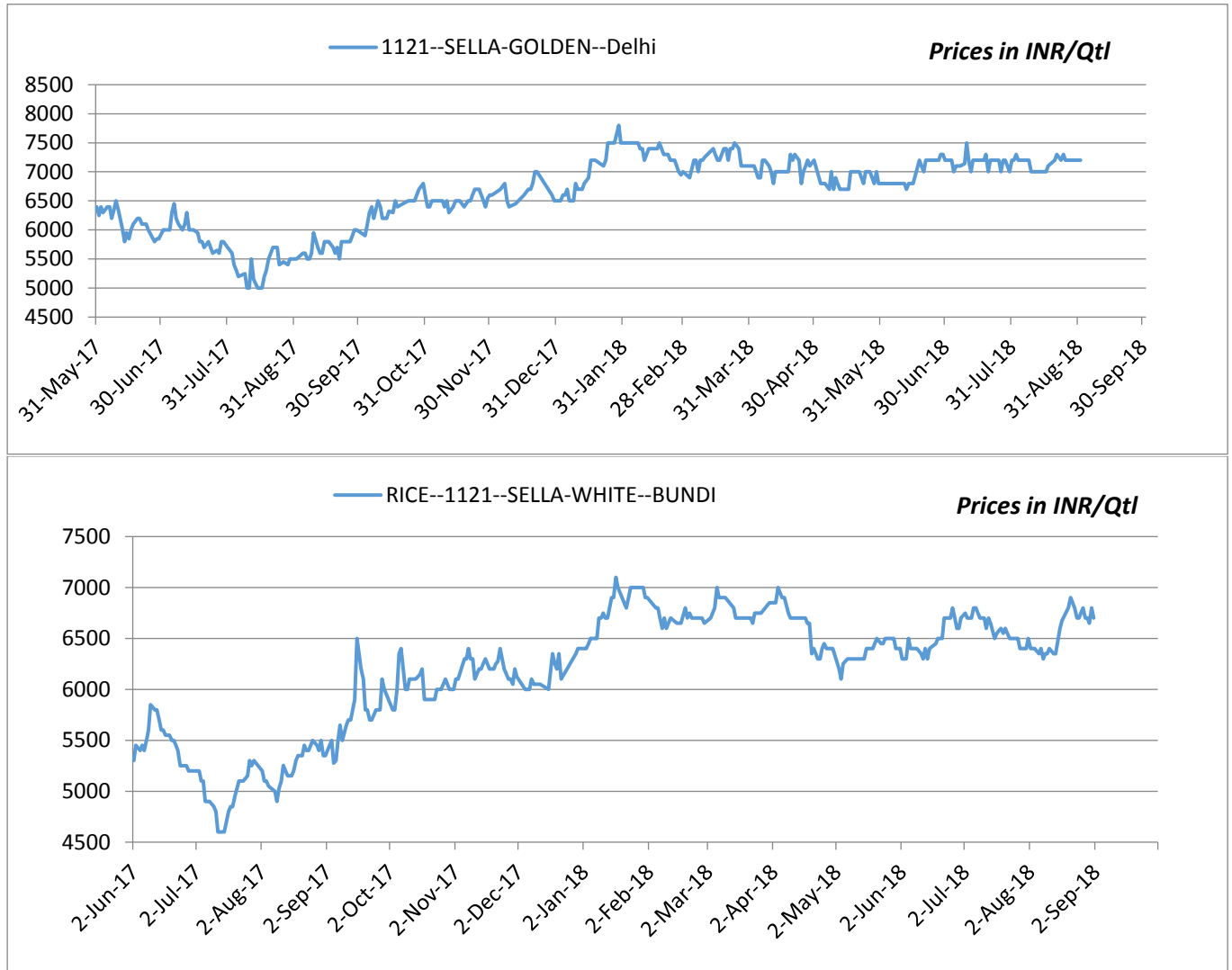
HP/District	Period:01-06-2018 To12-09-2018			
	ACTUAL (mm)	NORMAL (mm)	% DEP.	Rainfall Status
BILASPUR	969.1	800.9	21%	Excess
CHAMBA	637.3	1306.9	-51%	Deficient
HAMIRPUR	1128.7	1001.0	13%	Normal
KANGRA	1811.3	1483.3	22%	Excess
KINNAUR	111.6	223.0	-50%	Deficient
KULLU	562.8	476.1	18%	Normal
Mandi	157.8	401.1	-61%	Large Deficient
Simla	1175.9	1024.6	15%	Normal
Sirmaur	664.6	579.5	15%	Normal
Solan	1139.9	1240.4	-8%	Normal
Una	882.6	917.6	-4%	Normal
HP Total	729.4	758.1	-4%	Normal

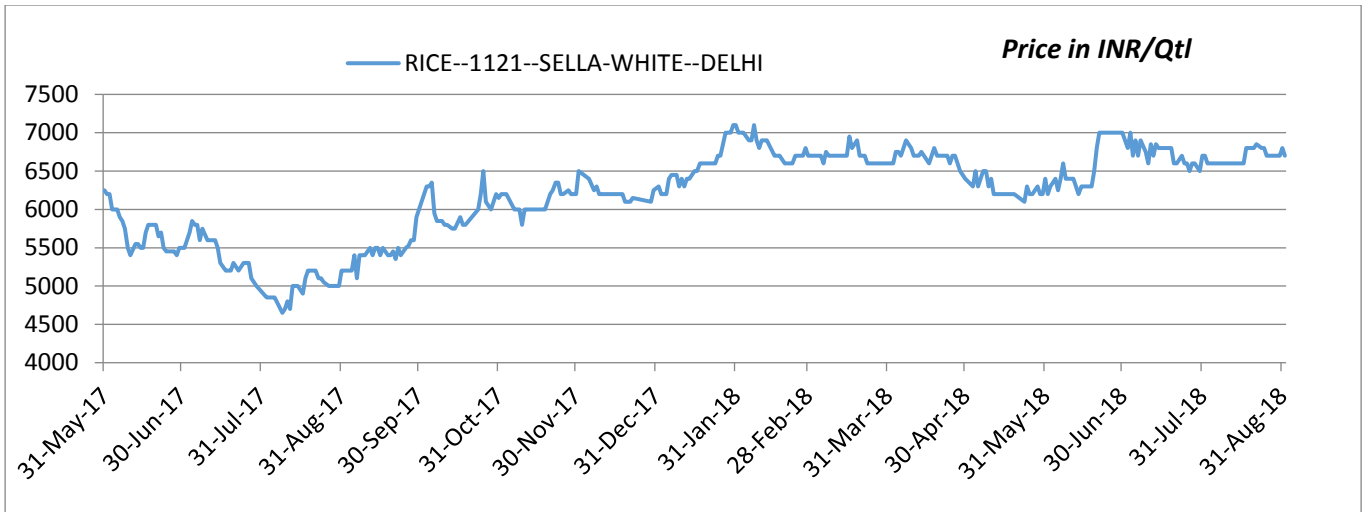
Delhi/District	Period:01-06-2018 To12-09-2018			
	ACTUAL (mm)	NORMAL (mm)	% DEP.	Rainfall Status
CENTRAL DELHI	472.0	594.1	-21%	Deficient
NEW DELHI	450.2	594.1	-24%	Deficient
NORTH DELHI	589.8	594.1	-1%	Normal
NORTH EAST DELHI	741.1	594.1	25%	Excess
NORTH WEST DELHI	474.5	594.1	-20%	Deficient
SOUTH DELHI	472.8	594.1	-20%	Deficient
SOUTH WEST DELHI	532.0	594.1	-10%	Normal
WEST DELHI	667.7	594.1	12%	Normal
Delhi Total	566.0	594.1	-5%	Normal

Chapter-7

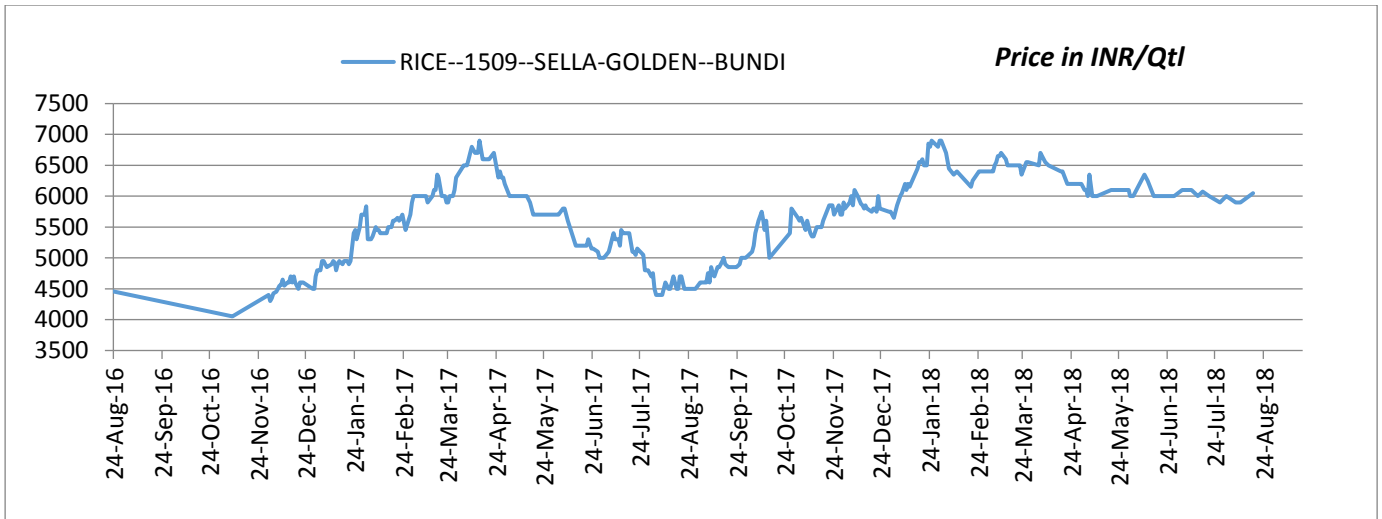
Price Monitor

Pusa 1121 Rice Monitor:

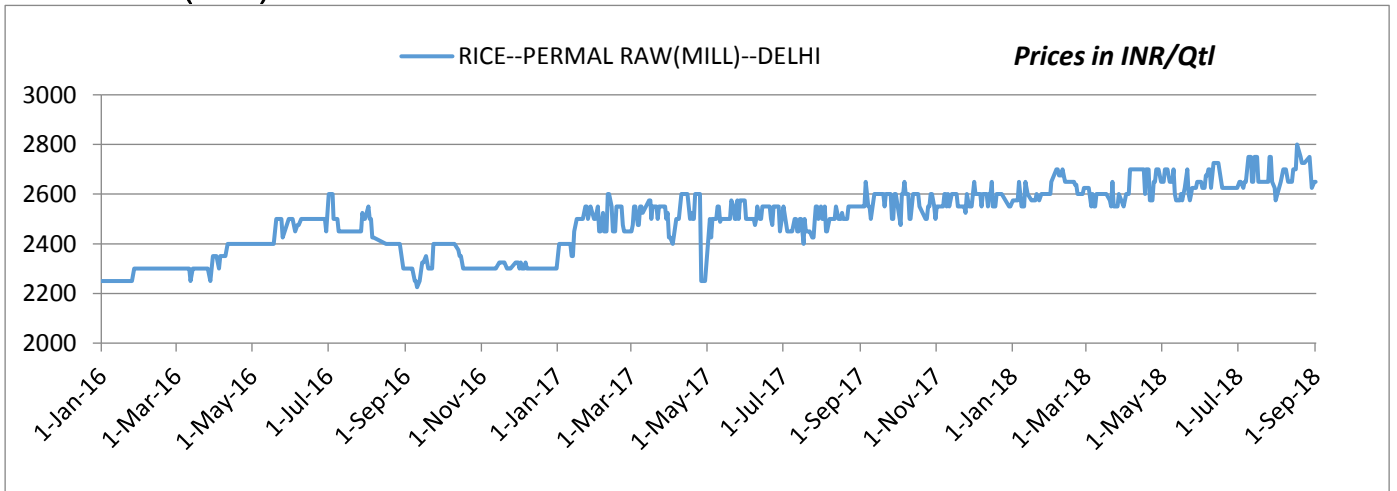




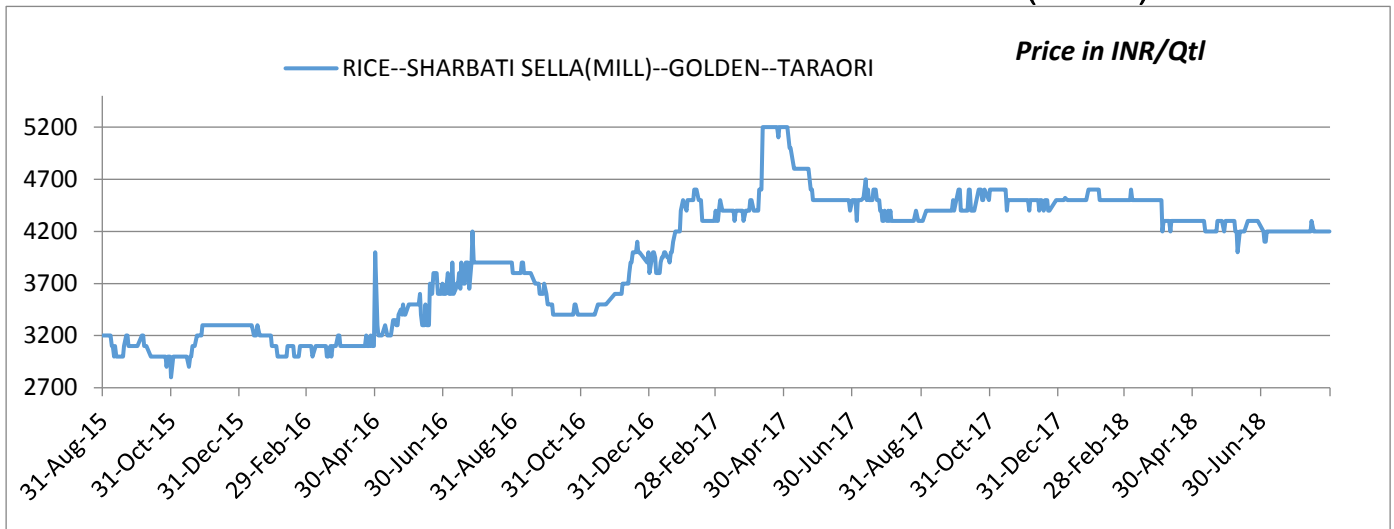
Pusa 1509 Rice Monitor:



Rice Permal (Delhi) Rice Monitor:



Sharbati (Taraori) Rice Monitor:



Methodology

- We have done the complete study based on field survey
- We have deputed the field teams in targeted 7 states which conducted the farmer interviews in around 79 districts out of total 81 districts
- We have done questionnaires'-based farmer surveys and taken farmers pictures along with actual survey day newspapers. We geo-tagged farmers during the survey too in our picture.
- To vet the complete study, we have also taken assistance from satellite images and tele-calling, so that complete perspective can be taken into considerations while arriving the results of the study
- To further validate the results, we have also taken the last year's figures from the previous reports, so that survey results error has to be minimized and actual figures can be achieved in the study

Way Forward

- Survey teams will be continuously in the field throughout the survey and report on crop progress to APEDA, so that subsequent reports will be presented in the more meaningful & timely manner
- Next report will focus on Mandi arrival pace / crop production / crop cutting experiments / price trends / any infestation or losses if any
- Any changes as reported from the field on current thoughts will also be incorporated
- Next report will be presented during Oct, 2018,

Data Source

- All figures based on farmer interview and feedback for current year
- Last year dataset from previously submitted reports

- Paddy procurement prices taken from independent price pooling exercise
- Monsoon data was collected from IMD & other meteorological departments
- Satellite imagery from NRSC

PICTURES FROM FIELD SURVEY









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APEDA, New Delhi**

**Prepared by
Geotrans Technologies Pvt. Ltd.**