

State: UTTAR PRADESH

Agriculture Contingency Plan for District: Sitapur

1.0 District Agriculture profile				
1.1	Agro-Climatic/ Ecological Zone			
	Agro-Ecological Sub Region(ICAR)		Central Plain Zone	
	Agro-Climatic Zone (Planning Commission)		Upper Gangetic Plain Region	
	Agro-Climatic Zone (NARP)		UP-4 Central Plain Zone	
	List all the districts falling the NARP Zone* (^ 50% area falling in the zone)		Lakhimpur, Kheri, Sitapur, Hardoi, Farrukhabad, Etawah, Kanpur, Kanpur Dehat, Unnao, Lucknow, Rae Bareilly, Fatehpur and Allahabad.	
	Geographical coordinates of district headquarters		Latitude	Latitude
			27.38N	80.45E
	Name and address of the concerned ZRS/ZARS/RARS/RRS/RRTTS		-	
	Mention the KVK located in the district with address		Krishi Vigyan Kendra, Village & Post Amberpur, Sidhauri, Sitapur	
Name and address of the nearest Agromet Field Unit(AMFU,IMD)for agro advisories in the Zone		NDAT Faizabad		

1.2	Rainfall	Normal RF (mm)	Normal Rainy Days (Number)	Normal Onset (Specify week and month)	Normal Cessation (Specify week and month)
	SW monsoon (June-sep)	849.8	46	2 nd week of June	4th week of September
	Post monsoon (Oct-Dec)	52.3	10		
	Winter (Jan-March)	47.6	-	-	-
	Pre monsoon (Apr-May)	24.3	-	-	-
	Annual	974.0	56		

1.3	Land use pattern of the district (Latest statistics)	Geographical area	Cultivable area	Forest area	Land under non-agricultural use	Permanent pastures	Cultivable wasteland	Land under Misc.tree crops and groves	Barren and uncultivable land	Current fallows	Other fallows
	Area in (000 ha)	573.9	496.2	5.8	66.1	0.7	6.2	4.7	5.2	37.5	11.8

1.4	Major Soils	Area('000 ha.)	Percent(%) of total
	Deep, fine soils moderately saline and sodic associated	188.6	38 %
	Deep, loamy soils and slightly eroded	143.9	29%
	Deep, silty soils associated with loamy soils	114.1	23%

1.5	Agricultural land use	Area('000 ha.)	Cropping intensity (%)
	Net sown area	436.0	133.63%
	Area sown more than once	227.1	
	Gross cropped area	663.1	

1.6	Irrigation	Area('000 ha)		
	Net irrigation area	384.2		
	Gross irrigated area	568.2		
	Rain fed area	51.8		
	Sources of irrigation (Gross Irrigated Area)	Number	Area('000 ha)	Percentage of total irrigated area
	Canals		29.743	5.2
	Tanks		0.132	0.1
	Open wells		0.0	
	Bore wells (Tube wells)		538.273	94.7
	Lift irrigation schemes		NA	
	Micro-irrigation		NA	
	Other sources		0	
	Total Irrigated Area		568.148	
	Pump sets (2011-12)	139514		
	No. of Tractors	14207		
	Groundwater availability and use* (Data source: State/ Central Ground water Department/ Board)	No of blocks- Tehsils-	(%)area	Quality of water
	Over exploited			
	Critical			
	Semi-critical			
	Safe			
Waste water availability and use				
Ground water quality				

*over-exploited groundwater utilization> 100%; critical: 90-100%; semicritical:70-90%; safe:<70%

1.7 Area under major field crops & (As per latest figures 2011-12)

1.7	Major field crops cultivated	Area('000 ha)							Summer	Total
		Kharif			Rabi					
		Irrigated	Rain fed	Total	Irrigated	Rain fed	Total			
	Wheat	0	0	0	214.6	0.006	214.6	0	214.6	
	Rice	158.4	3.8	162.2	0	0	0	0.028	162.2	
	Sugarcane	125.6	0.7	126.3	-	-	-	-	126.3	
	Rapeseed Mustard	-	-	-	18.581	2.590	21.171	-	21.171	
	Lentil	-	-	-	0.3	20.3	20.6	-	20.6	
	Maize	0.001	12.8	12.8	-	-	-	-	12.8	

1.8 Production and productivity of major crops (Average of last 5 years)

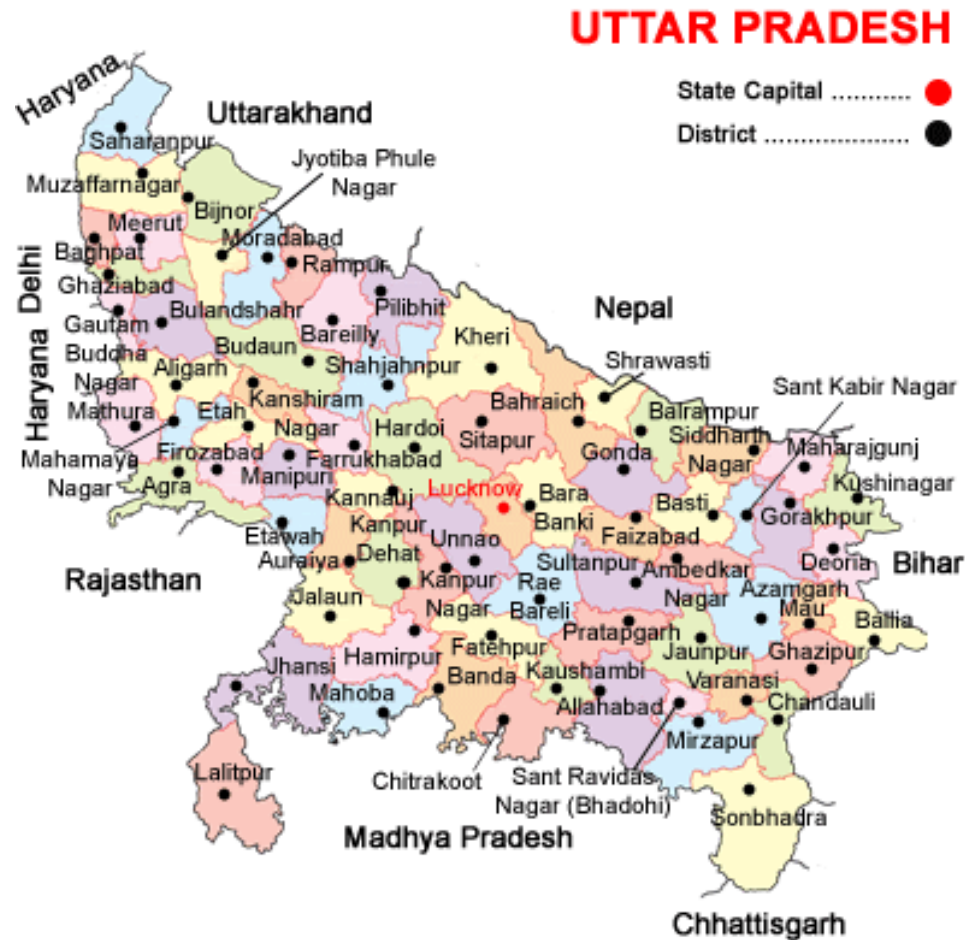
1.8	Major field crops cultivated	Area('000 ha)								Crop residue as fodder ('000 tons)
		Kharif		Rabi		Summer		Total		
		Production ('000 t)	Productivity (Kg/ha)	Production ('000 t)	Productivity (Kg/ha)	Production ('000 t)	Productivity (Kg/ha)	Production ('000 t)	Productivity (Kg/ha)	
	Rice	292.8	1912	-	-	-	-	292.8	1912	NA
	Wheat	-	-	637.6	2913	-	-	637.6	2913	NA
	Maize	11.3	708	-	-	-	-	11.3	708	NA
	Lentil	-	-	18.7	770	-	-	18.7	770	NA
	Rapeseed Mustard	-	-	15.5	837	-	-	15.5	837	NA
	Sugarcane	6361.3	51536	-	-	-	-	6361.3	51536	NA

1.9	Sowing window for 5 major field crops	Rice	Pigeon Pea	Urd	Maize	Groundnut	Sorghum	Wheat	Lentil	Gram	Sugarcane	Mustard
	Kharif – Rainfed	-	First week of July to Last week of August	2 nd week of July to First week of August	First week of July to 3 rd week of July	First week of July to Last week of July	First week of July to 3 rd week of July	-	-	-	-	-
	Kharif - Irrigated	First week of July to First week of August	-	-	First week of June to First week of July	First week of June to First week of July	-	-	-	-	2nd week of Feb to last week of March	-
	Rabi – Rainfed	-	-	-	-	-	-	-	First week of Oct to Last week of Oct	First week of Oct to Last week of Oct	-	First week of Sep to 2nd week of Oct
	Rabi - Irrigated	-	-	-	-	-	-	2nd week of Nov to 2th week of Dec	-	-	First week of Oct to last week of Oct	-

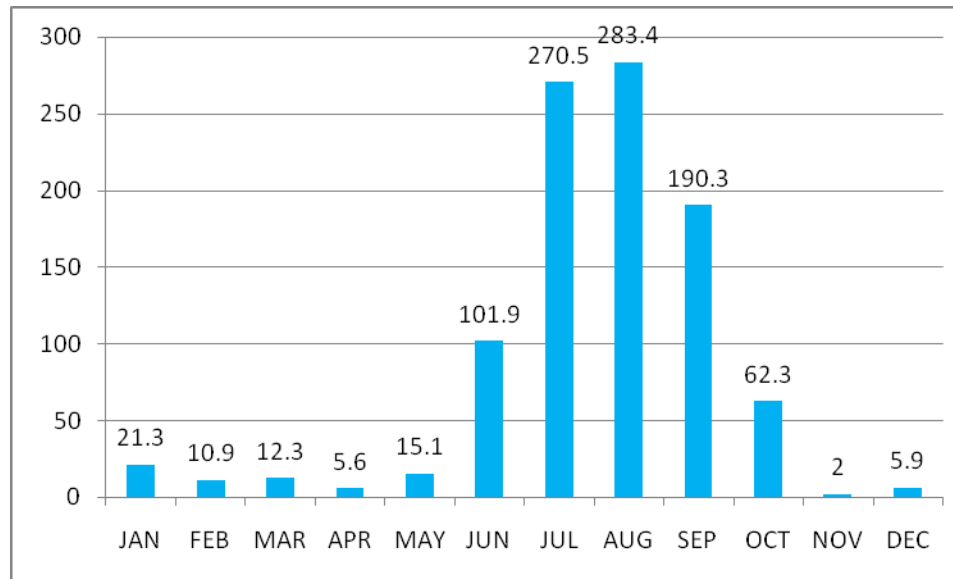
1.10	What is the major contingency the district is prone to?	Regular	Occasional	None
	Drought	-	-	
	Flood	-	-	
	Cyclone	-	-	
	Hail storm	-	✓	
	Heat wave	-	✓	
	Cold wave	-	✓	
	Frost	✓	-	
	Sea water intrusion	-	-	
	Sheath Blight, Stemborrrer , Pyrilla loos smut, Heliothis, Rust etc white grub.	-	-	

1.14	Include Digital maps of the district for	Location map of district with in State as Annexure I	Enclosed : Yes
		Mean annual rainfall as Annexure 2	Enclosed : Yes
		Soil map as Annexure 3	Enclosed : Yes

Annexure I
Location map of Sitapur district

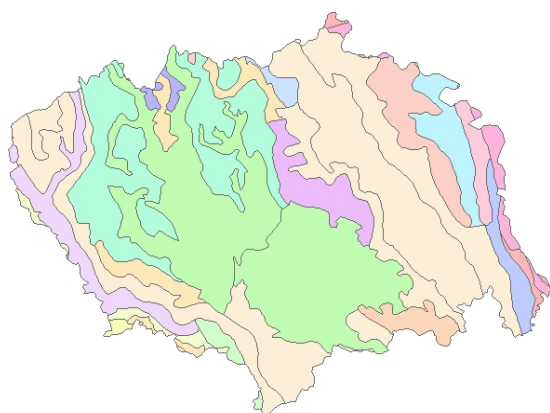


Annexure 2
Average Month-wise rainfall (mm) in Sitapur District



1.14 Soil Map

SOILS SITAPUR DISTRICT UTTAR PRADESH



Legend

1	7	13
2	8	14
3	9	15
4	10	16
5	11	17
6	12	18

NBSS & LUP, Regional Centre Delhi

SOILS OF SITAPUR DISTRICT (U.P.)

Alluvial plain (0-1% slope)

1. Deep, loamy soils and slightly eroded .
2. Deep, loamy soils and slightly eroded associated with silty soils .
3. Deep, fine soils moderately saline and sodic associated with loamy soils, slightly eroded .
4. Deep, fine soils and slightly eroded associated with loamy soils slightly saline and moderately sodic .
5. Deep, fine soils and slightly eroded associated with loamy soils .
6. Deep, silty soils associated with loamy soils slightly eroded .
7. Deep, silty soils with moderate salinity/sodicity associated with loamy soils slightly eroded .
8. Deep, loamy soils and slightly eroded associated with silty soils slightly saline/sodic and moderately sodic.
9. Deep, silty soils and slightly eroded associated with fine soils .

Old Alluvial plain with river left out channels/Oxbows/point bars (1-3% slope)

10. Deep, loamy soils and slightly eroded associated with stratified loamy soils slightly eroded

Recent Alluvial Plain (1-3% slope)

11. Deep, loamy soils with moderate water logging and slight salinity associated with fine soils, slightly water logging .
12. Deep, silty soils and slight flooding associated with loamy soils and slight flooding
13. Deep, loamy soils slightly eroded associated with sandy soils with slight flooding
14. Deep, silty soils, moderately saline and sodic associated with loam soils and slightly eroded

Active Flood Plain (1-3% slope)

15. Deep, sandy soils with moderate flooding associated with stratified loamy soils and slight flooding .
16. Deep, stratified loamy soils, with moderate flooding associated with sandy soils with moderate flooding .
17. Deep, stratified loamy soils, with severe flooding associated with loamy soils with moderate flooding .

Very gently sloping uplands with hummocks (1-3% slope)

18. Deep, fine soils, slightly eroded associated with fine smectitic soils and slightly eroded.

2.0 Strategies for weather related contingencies

2.1 Drought

2.1.1 Rainfed situation

Condition			Suggested Contingency measures		
Early season drought (delayed onset)	Major Farming situation	Normal Crop / Cropping system	Change in crop / cropping system including variety	Agronomic measures	Remarks on Implementation
Delay by 2 weeks (1 st week of July)	Deep, fine soils moderately saline and sodic ./ Deep, loamy soils and slightly eroded/ Deep, silty soils	Sorghum/Pearl millet+ Pigeon Pea+Urd	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203, Pigeon Pea -N Arhar-1, N arhar-2, Bahar, PDA-11, MA-13, MA-6 Urd- Azad urd-2, Azad urd-3, Sekhar-1, sekhar-2, sekhar-3,	Line sowing/ Raised bed 1:2:1	Linked with SDC/SAUs
		Sorghum/Pearl millet/	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203,	Line sowing/ Raised bed against slope	Linked with SDC/SAUs
		Sorghum/Pearl millet+ Pigeon Pea	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203, Pigeon Pea -N Arhar-1, N arhar-2, Bahar, PDA-11, MA-13, MA-6	Line sowing/ Raised bed 1:2	Linked with SDC/SAUs

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Early season drought (delayed onset) Delay by 4 weeks 2 st week of August)	Deep, fine soils moderately saline and sodic ./ Deep, loamy soils and slightly eroded/ Deep, silty soils	Sorghum/Pearl millet+ Pigeon Pea+Urd	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203, Pigeon Pea -N Arhar-1, N arhar-2, Bahar, PDA-11, MA-13, MA-6 Urd- Azad urd-2, Azad urd-3, Sekhar-1, sekhar-2, sekhar-3,	Line sowing/ Raised bed 1:2:1	Linked with SDC/SAUs
		Sorghum/Pearl millet/	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203,	Line sowing/ Raised bed against slope	Linked with SDC/SAUs
		Sorghum/Pearl millet+ Pigeon Pea	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203, Pigeon Pea -N Arhar-1, N arhar-2, Bahar, PDA-11, MA-13, MA-6	Line sowing/ Raised bed 1:2	Linked with SDC/SAUs

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Early season drought (delayed onset) Delay by 6 weeks 1 st week of August)	Deep, fine soils moderately saline and sodic / Deep, loamy soils and slightly eroded/ Deep, silty soils	Sorghum/Pearl millet+ Pigeon Pea+Urd	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203, Pigeon Pea -N Arhar-1, N arhar-2, Bahar, PDA-11, MA-13, MA-6 Urd- Azad urd-2, Azad urd-3, Sekhar-1, sekhar-2, sekhar-3,	Line sowing/ Raised bed 1:2:1	Linked with SDC/SAUs
		Sorghum/Pearl millet/	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203,	Line sowing/ Raised bed against slope	Linked with SDC/SAUs
		Sorghum/Pearl millet+ Pigeon Pea	No change Sorghum-CSV-13,CSV-15,CSV-23, Bundela Pearl millet-ICMV-221, JBV-2, ICTP-8203, Pigeon Pea -N Arhar-1, N arhar-2, Bahar, PDA-11, MA-13, MA-6	Line sowing/ Raised bed 1:2	Linked with SDC/SAUs

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Early season drought (delayed onset)					
Delay by 8 weeks (3 rd week of August)	Deep, fine soils moderately saline and sodic ./ Deep, loamy soils and slightly eroded/ Deep, silty soils	Sorghum/Pearl millet+ Pigeon Pea+Urd	Fallow	Fallow for rabi sowing Viz mustard, lentil and gram	
		Sorghum/Pearl millet/	Fallow	Fallow for rabi sowing Viz mustard, lentil and gram	
		Sorghum/Pearl millet+ Pigeon Pea	Fallow	Fallow for rabi sowing Viz mustard, lentil and gram	

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Crop management	Soil nutrient & moisture conservation measures	Remarks on Implementation
Early season drought (Normal onset)					
Normal onset followed by 15-20 days dry spell after sowing leading to poor germination/crop stand etc.	Deep, fine soils moderately saline and sodic ./ Deep, loamy soils and slightly eroded/ Deep, silty soils	Sorghum/Pearl millet+ Pigeon Pea+Urd	Weeding/ Re-sowing	All nutrients apply at the time of sowing. Mulching.	
		Sorghum/Pearl millet/	Weeding/ Re-sowing	All nutrients apply at the time of sowing. Mulching.	
		Sorghum/Pearl millet+ Pigeon Pea	Weeding/ Re-sowing	All nutrients apply at the time of sowing. Mulching.	

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Crop management	Soil nutrient & moisture conservation measures	Remarks on Implementation
Mid season drought (long dry spell, consecutive 2 weeks rainless (>2.5 mm) period)					
	Deep, fine soils	Sorghum/Pearl millet/	Spray 2% MOP+ 2% Urea	All nutrients apply at	Linked with

At vegetative stage	moderately saline and sodic ./ Deep, loamy soils and slightly eroded/ Deep, silty soils			the time of sowing. Mulching.	NFSM Scheme
		Sorghum/Pearl millet+ Pigeon Pea	Spray 2% MOP	All nutrients apply at the time of sowing. Mulching.	Linked with NFSM Scheme
		Sorghum/Pearl millet+ Pigeon Pea+Urd	Spray 2% MOP	All nutrients apply at the time of sowing. Mulching.	Linked with NFSM Scheme

Condition			Suggested Contingency measures		
Mid season drought (long dry spell)	Major Farming situation	Normal Crop/cropping system	Crop management	Soil nutrient & moisture conservation measures	Remarks on Implementation
At flowering/ fruiting stage	Sandy Loam, Silty soil and Deep, silty soils associated with loamy soils slightly eroded	Sorghum/Pearl millet/	Spray 2% MOP+2% Urea	Life saving irrigation if available	Linked with NFSM/ RKVY Scheme
		Sorghum/Pearl millet+ Pigeon Pea	Spray 2% MOP	Life saving irrigation if available	Linked with NFSM/ RKVY Scheme
		Sorghum/Pearl millet+ Pigeon Pea+Urd	Spray 2% MOP	Life saving irrigation if available	Linked with NFSM/ RKVY Scheme

Condition			Suggested Contingency measures		
Terminal drought (Early withdrawal of monsoon)	Major Farming situation	Normal Crop/cropping system	Crop management	Rabi Crop planning	Remarks on Implementation
	: Sandy Loam, Silty soil and Deep, silty soils associated with loamy soils slightly eroded	Sorghum/Pearl millet/	Spray 2% MOP+2% Urea	Used as fodder planning for rabi sowing	Linked with NFSM/ RKVY Scheme
		Sorghum/Pearl millet+ Pigeon Pea	Spray 2% MOP	Life saving irrigation if available	Linked with NFSM/ RKVY Scheme
		Sorghum/Pearl millet+ Pigeon Pea+Urd	Spray 2% MOP	Life saving irrigation if available, Harvest Urd If physiological mature75%	Linked with NFSM/ RKVY Scheme

2.1.2 Drought - Irrigated situation

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Delayed release of water in canals due to low rainfall	Farming situation: Sandy Loam, Silty soil and Deep, silty soils	Rice	Inclusion of these varieties Sarju-52, pant-12, NDR-359, PR-113and Hybrids.	<ul style="list-style-type: none"> • SRI • Provide irrigation at hair line crack stage • Weed control 	Linked with SDC/SAUs
		Maize	Prefer early/short duration varieties/composites/Hybrids Azad Uttam, Azad Kamal, Tarun, Naveen and prakash, PEHM-2, PEHM-5	<ul style="list-style-type: none"> • Ridge and furrow planting • Irrigation at critical stages • Weed control • Ensure recommended basal dose (2/3 of RDF) and 1/3 of RDF of K at tasseling initiation stage 	Linked with SDC/SAUs
		Sugarcane	No change	Application of MOP, removal of lower leaves and light irrigation	Linked with SDC/SAUs

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Limited release of water in canals due to low rainfall	Sandy Loam, Silty soil and Deep, silty soils	Rice	No change	<ul style="list-style-type: none"> • SRI • Weed control • Life saving irrigation 	
		Maize	No change	<ul style="list-style-type: none"> • Ridge and furrow planting • Life saving irrigation • Mulching 	

Condition			Suggested Contingency measures		
	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
		Sugarcane	No change	<ul style="list-style-type: none"> • Life saving irrigation • Spray of MOP 2% • Apply lower leaves for Mulching 	

Condition			Suggested Contingency measures		
	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Non release of water in canals under delayed onset of monsoon in catchment	Sandy Loam		Not Applicable		

Condition			Suggested Contingency measures		
	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Lack of inflows into tanks due to insufficient /delayed onset of monsoon Not Applicable			Not Applicable		

Condition			Suggested Contingency measures		
	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Insufficient groundwater recharge due to low rainfall	Tube well irrigated				Not Applicable

2.2 Unusual rains (untimely, unseasonal etc) (for both rainfed and irrigated situations)

Condition	Suggested contingency measure			
Continuous high rainfall in a short span leading to water logging	Vegetative stage	Flowering stage	Crop maturity stage	Post harvest
Rice	Repair Bunds	Repair Bunds	Drain out excess water	Drain out excess water Shifting of produce at safer place for drying
Maize	Drain out excess water	Drain out excess water	Drain out excess water	Shifting of produce at safer place for drying
Sugarcane	Bunds repairing, Drain out excess water	Drain out excess water, Harvest Mature crop	Drain out excess water, Harvest Mature crop	Shifting of produce at safer place for drying
Heavy rainfall with high speed winds in a short span				
Rice	drain out excess water	Drain out excess water	Drain out excess water	Shifting of produce at safer place for drying
Maize	Drain out excess water	Drain out excess water	Drain out excess water	Shifting of produce at safer place for drying
Sugarcane	Tying of sugarcane clumps	Drain out excess water,	Drain out excess water, Harvest	Shifting of produce at safer place for

		Harvest Mature crop	Mature crop	drying
Horticulture	-	-	-	-
Outbreak of pests and diseases due to unseasonal rains				
Rice	Spray of Chloropyriphos 2.5 lt./ hac for termite and For stemborer (Cartap @25 kg/ hac)	Dusting of Methyl parathion @ 15 kg/hac for Gandhi Bug and Chlorothalonil @2ml/lt of water for false smut.	-	-
Maize	Application of fipronil (g) @33 kg/ hac. For termite	Spray of Validamycin @2.7 ml/lt. of water solution for banded leaf and sheath blight.	-	-
Sugarcane	Spray of Chloropyriphos @6.50 lt./ hac for early shoot borar	Spray of Mancozeb(0.2%) for rust.		
Horticulture	-	-	-	-

2.3 Floods:

Condition	Suggested contingency measure			
	Seedling / nursery stage	Vegetative stage	Reproductive stage	At harvest
Transient water logging/ partial inundation¹				
Rice	Drain out excess water	Strengthening of Bunds	-	Shifting of produce at safer place for drying
Sugarcane	Drain out excess water	Drain out excess water	Drain out excess water	Shifting of produce at safer place for drying
Continuous submergence				

for more than 2 days				
Rice	Drainage	Drainage and top dressing of urea	Drainage and top dressing of urea	Shifting of produce at safer place for drying
Sugarcane	Drainage	Drainage and top dressing of urea	Drainage and top dressing of urea	Shifting of produce at safer place for drying

2.4 Extreme events: Heat wave / Cold wave/Frost/ Hailstorm /Cyclone

Extreme event type	Suggested contingency measure^f			
	Seedling / nursery stage	Vegetative stage	Reproductive stage	At harvest
Heat Wave				
Rice	Drain out heated water from nursery	Application of life saving irrigation and MOP	Application of life saving irrigation and MOP	
Maize	Application of life saving irrigation and mulching	Application of life saving irrigation and MOP	Application of life saving irrigation and MOP	
Sugarcane	Light irrigation and removal of lower leaves to used as mulch	Light irrigation and removal of lower leaves to used as mulch	Light irrigation and removal of lower leaves to used as mulch	
Horticulture				
Mango	To irrigate orchard	To irrigate orchard	To irrigate orchard	
Guava	To irrigate orchard	To irrigate orchard	To irrigate orchard	
Banana	To irrigate orchard	To irrigate orchard	To irrigate orchard	
Cold wave^g				
Horticulture				
Frost				
Horticulture				

2.5 Contingent strategies for Livestock, Poultry & Fisheries

2.5.1 Livestock

<p>Heat & Cold wave</p>	<p>In villages which are chronically prone to heat waves the following permanent measures are suggested</p> <ul style="list-style-type: none"> i) Plantation of trees like Neem, Pipal, Subabul around the shed ii) Spreading of husk/straw/coconut leaves on the roof of the shed iii) Water sprinklers / foggers in the animal shed iv) Application of white reflector paint on the roof to reduce thermal radiation effect <p>Cold wave : Covering all the wire meshed walls / open area with gunny bags/ polyethylene sheets with a mechanism for lifting during the day time and closing during night</p>	<p>Allow the animals preferably early in the morning or late in the evening for grazing during heat waves</p> <p>Allow for grazing between 10AM to 3PM during cold waves</p> <p>Feed green fodder/silage / concentrates during day time and roughages / hay during night time in case of heat waves</p> <p>Add 25-50 ml of edible oil in concentrates per kg and fed to the animal during cold waves</p> <p>Apply / sprinkle lime powder (5-10g per square feet) in the animal shed during cold waves to neutralize ammonia accumulation</p> <p>Put on the foggers / sprinklers during heat waves and heaters during cold waves in case of high productive animals</p> <p>In severe cases, vitamin 'C' (5-10ml per litre) and electrolytes (Electral powder @ 20g per litre) should be added in water during severe heat waves.</p>	<p>Green and concentrates supplementation should be provided to all the animals.</p> <p>Allow the animals for grazing (normal timings)</p>
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2.5.2 Poultry

	Suggested contingency measures			Convergence/linkages with ongoing programs, if any
	Before the event	During the event	After the event	
Heat wave				Heat wave
Shelter/environment management	Provision of proper shelter with good ventilation	In severe cases, foggers/water sprinklers/wetting of hanged gunny bags should be arranged Don't allow for scavenging during mid day	Routine practices are followed	Shelter/environment management
Health and disease management	Deworming and vaccination against RD and fowl pox	Supplementation of house hold grain Provide cool and clean drinking water with electrolytes and vit. C (5-10 ml per litre) In hot summer, add anti-stress probiotics in drinking water or feed (Reestobal etc., 10-20ml per litre)	Routine practices are followed	Health and disease management
Cold wave				Cold wave
Shelter/environment management	Provision of proper shelter Arrangement for brooding Assure supply of continuous electricity	Close all openings with polythene sheets In severe cases, arrange heaters Don't allow for scavenging during early morning and late evening	Routine practices are followed	Shelter/environment management
Health and disease management	Arrangement for protection from chilled air	Supplementation of grains Antibiotics (Ampicilline/ Ampiclox etc., 10g in one litre) in drinking water to protect birds from pneumonia	Routine practices are followed	Health and disease management