

**State: RAJASTHAN**

**Agriculture Contingency Plan for District: AJMER**

1.0 District Agriculture profile					
<b>1.1</b>	<b>Agro-Climatic/Ecological Zone</b>				
	Agro Ecological Sub Region (ICAR)		Northern Plain and Central highlands including Aravallis eco system ( (4.2)		
	Agro-Climatic Zone (Planning Commission)		Western dry region (XIV)		
	Agro Climatic Zone (NARP)		Transitional plain of inland drainage zone (RA-III a)		
	List all the districts or part thereof falling under the NARP Zone		Jaipur, Ajmer, Tonk and Dausa		
	Geographic coordinates of district headquarters		Latitude	Longitude	Altitude
			25 <sup>0</sup> 38'	73 <sup>0</sup> 54'	471m
	Name and address of the concerned ZRS/ ZARS/ RARS/ RRS/ RRTTS		Zonal Agricultural Research Station, Durgapura, Jaipur		
	Mention the KVK located in the district		Krishi Vigyan Kendra, Tabiji, Ajmer		
<b>1.2</b>	<b>Rainfall</b>	Normal rainfall (mm)	Normal Rainy days (number)	Normal Onset ( specify week and month)	Normal Cessation (specify week and month)
	SW monsoon (June-Sep):	551.3	22.5	4 <sup>th</sup> week of June	2 <sup>nd</sup> week of September
	NE Monsoon(Oct-Dec):	17.3	1.1		
	Winter (Jan- March)	21.6	1.5	-	-
	Summer (Apr-May)	11.6	1.3	-	-
	Annual	<b>601.8</b>	26.4	-	-

1.3	<b>Land use pattern of the district</b> (latest statistics) (2007-08)	<b>Geographical area</b>	<b>Cultivable area</b>	<b>Forest area</b>	<b>Land under non-agricultural use</b>	<b>Permanent pastures</b>	<b>Cultivable wasteland</b>	<b>Land under Misc. tree crops and groves</b>	<b>Barren and uncultivable land</b>	<b>Current fallows</b>	<b>Other fallows</b>
	<b>Area ('000 ha)</b>	843.6	463.2	56.2	139.0	78.5	71.9	0.3	87.2	33.3	42.1

1.4	<b>Major Soils (common names like red sandy loam deep soils (etc.,))*</b>	<b>Area ('000 ha)</b>	<b>Percent (%) of total</b>
	Medium brown loamy soils	435.8	51.7
	Medium brown loamy soils	301.7	35.8
	Red gravelly loam soils	77.5	9.2
	Deep brown sandy soils	27.3	3.2

\* mention colour, depth and texture (heavy, light, sandy, loamy, clayey etc) and give vernacular name, if any, in brackets

1.5	<b>Agricultural land use (2007-08)</b>	<b>Area ('000 ha)</b>	<b>Cropping intensity %</b>
	Net sown area	422.0	110
	Area sown more than once	41.2	
	Gross cropped area	463.2	

<b>1.6</b>	<b>Irrigation (2007-08)</b>	<b>Area ('000 ha)</b>		
	Net irrigated area	56.8		
	Gross irrigated area	67.0		
	Rainfed area	396.2		
	<b>Sources of Irrigation</b>	<b>Number</b>	<b>Area ('000 ha)</b>	<b>Percentage of total irrigated area</b>
	Canals		0.5	0.8
	Tanks	0	1.2	1.9
	Open wells	201422	61.7	92.1
	Bore wells	186142	1.8	2.7
	Lift irrigation schemes	-	-	-
	Micro-irrigation		2.2	
	Other sources (please specify)		1.5	2.3
	Total Irrigated Area		67.0	
	Pump sets	29148		
	No. of Tractors	852		
	<b>Groundwater availability and use* (Data source: State/Central Ground water Department /Board)</b>	<b>No. of blocks/ Tehsils</b>	<b>(%) area</b>	
	Over exploited	7	-	
	Critical	1	-	
	Semi- critical	0	-	
	Safe	0	-	
Wastewater availability and use	-	-		
Ground water quality				
*over-exploited: groundwater utilization > 100%; critical: 90-100%; semi-critical: 70-90%; safe: <70%				

**1.7 Area under major field crops & horticulture (as per latest figures) (Specify year 2008-09)**

1.7	Major field crops cultivated	Area ('000 ha)							
		<i>Kharif</i>			<i>Rabi</i>				
		Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Summer	Grand total
	Sorghum	0.02	143.4	143.4	-	-	-	-	143.4
	Pulses	0.0	86.7	86.7	-	-	-	-	86.7
	Mustard	-	-	-	0.1	21.6	21.7	-	21.7
	Gram	-	-	-	6.3	22.3	20.8	-	20.8
	Wheat	-	-	-	16.0	0.6	16.6	-	16.6
	Barley	-	-	-	7.1	0.8	7.9	-	7.9
	Cotton	5.1	1.3	6.4	-	-	-	-	6.4

	Horticulture crops - Fruits	Area ('000 ha)		
		Total	Irrigated	Rainfed
	Mango	0.06	0.06	-
	Guava	0.07	0.07	-
	Pomgranate	0.02	0.02	-
	Aonla	0.09	0.09	-
	Lime	0.04	0.04	-

	<b>Horticulture crops - Vegetables</b>	<b>Total</b>	<b>Irrigated</b>	<b>Rainfed</b>
	Tomato	1.3	1.3	-
	Brinjal	0.3	0.3	-
	Onion	2.1	2.1	-
	Tinda	0.1	0.1	-
	Pea	0.1	0.1	-
	Cole crops	1.4	1.4	-
	<b>Medicinal and Aromatic crops</b>			
			NA	
	<b>Plantation crops</b>			
			NA	
	Eg., industrial pulpwood crops etc.			
	<b>Fodder crops</b>	<b>Total</b>	<b>Irrigated</b>	<b>Rainfed</b>
	<b>Total fodder crop area</b>	-	-	-
	<b>Grazing land</b>	-	-	-
	<b>Sericulture etc</b>	-	-	-

<b>1.8</b>	<b>Livestock</b>	<b>Male ('000)</b>	<b>Female ('000)</b>	<b>Total ('000)</b>			
	Non descriptive Cattle (local low yielding)	-	-	295.4			
	Crossbred cattle	-	-				
	Non descriptive Buffaloes (local low yielding)	-	-	275.6			
	Graded Buffaloes	-	-				
	Goat	-	-	602.6			
	Sheep	-	-	392.9			
	Others (Camel, Pig, Yak etc.)	-	-	26.9			
	Commercial dairy farms (Number)						
<b>1.9</b>	<b>Poultry</b>	<b>No. of farms</b>	<b>Total No. of birds ('000)</b>				
	Commercial	-	2112.3				
	Backyard	-	-				
<b>1.10</b>	<b>Fisheries (Data source: Chief Planning Officer) NA</b>						
	<b>A. Capture</b>						
	<b>i) Marine</b> (Data Source: Fisheries Department)	<b>No. of fishermen</b>	<b>Boats</b>		<b>Nets</b>		<b>Storage facilities (Ice plants etc.)</b>
			Mechanized	Non-mechanized	Mechanized (Trawl nets, Gill nets)	Non-mechanized (Shore Seines, Stake & trap nets)	
	-NA-						
	<b>ii) Inland</b> (Data Source: Fisheries Department)	<b>No. Farmer owned ponds</b>		<b>No. of Reservoirs</b>		<b>No. of village tanks</b>	
		-					
	<b>B. Culture</b>						
		<b>Water Spread Area (ha)</b>	<b>Yield (t/ha)</b>		<b>Production ('000 tons)</b>		

	i) <b>Brackish water</b> (Data Source: MPEDA/ Fisheries Department)	-NA-
	ii) <b>Fresh water</b> (Data Source: Fisheries Department)	-NA-

**1.11 Production and Productivity of major crops** (Average of last 5 years: 2004, 05, 06, 07, 08; specify years)

1.11	Name of crop	Kharif		Rabi		Summer		Total		Crop residue as fodder ('000 tons)
		Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	
<b>Major Field crops (Crops to be identified based on total acreage)</b>										
	Sorghum	53.0	391	-	-	-	-	52.9	391	-
	Pulses	35.4	282	-	-	-	-	35.4	282	-
	Cotton	10.9 (th t.bales)	376	-	-	-	-	10.9	376	-
	Wheat	-	-	52.5	2142	-	-	52.5	2142	-
	Barley	-	-	17.4	2337	-	-	17.4	2337	-
	Gram	-	-	7.1	494	-	-	7.1	494	-
<b>Major Horticultural crops (Crops to be identified based on total acreage)</b>										
	Tomato	-	-	-	-	-	-	1.3	11740	-
	Brinjal	-	-	-	-	-	-	0.5	12980	-
	Onion	-	-	-	-	-	-	4.0	18812	-
	Tinda	-	-	-	-	-	-	0.2	11797	-
	Pea	-	-	-	-	-	-	0.2	14155	-

	Cole crops	-	-	-	-	-	-	2.0	13008	
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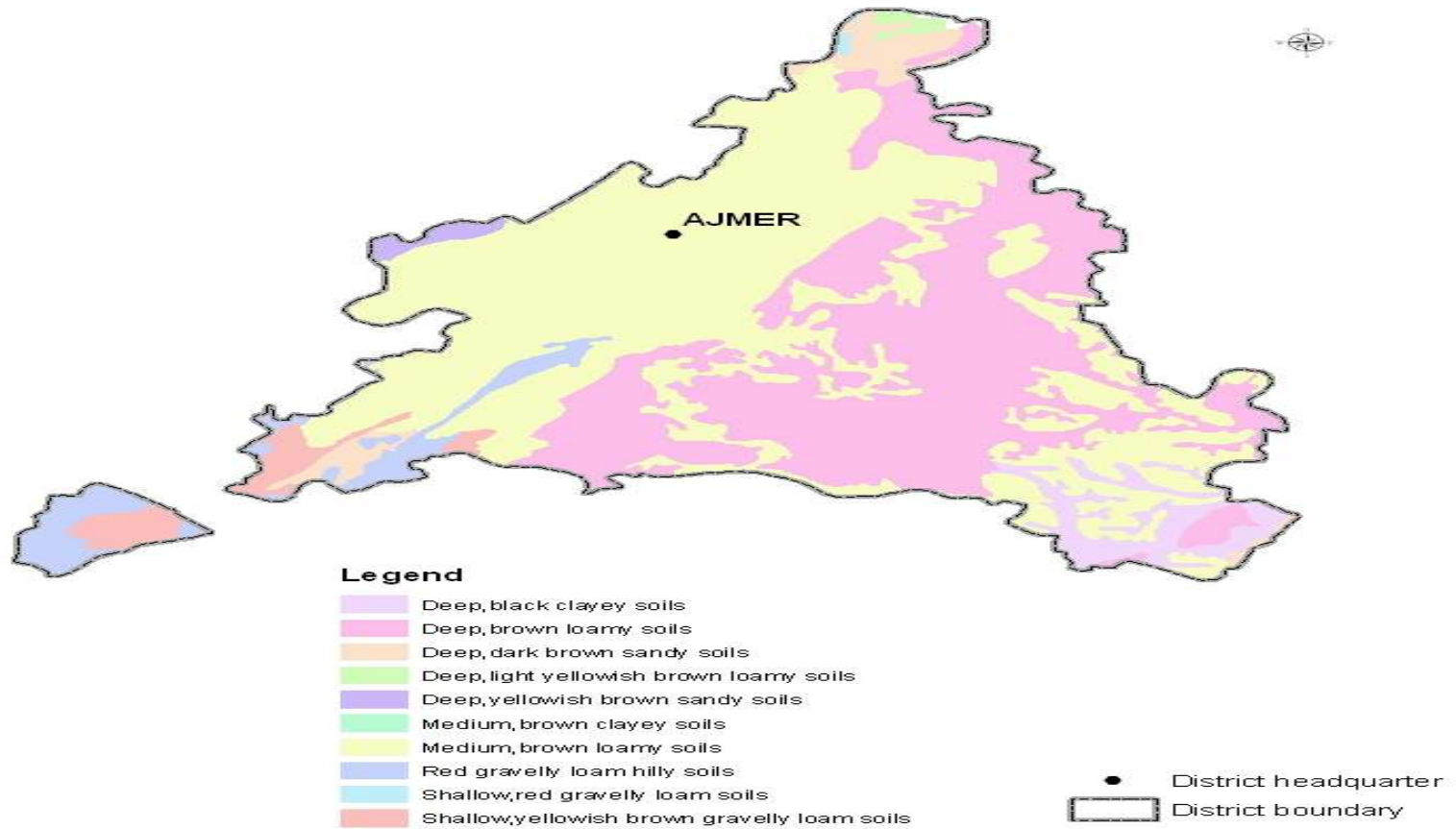
1.12	Sowing window for 5 major field crops (start and end of normal sowing period)	Sorghum	Cotton	Wheat	Gram	Mustard
	Kharif- Rainfed	1 <sup>st</sup> week of June to 4 <sup>th</sup> week of July	-	-	-	-
	Kharif-Irrigated	-	1 <sup>st</sup> week of June to 4 <sup>th</sup> week of July	-	-	-
	Rabi- Rainfed	-	-	-	-	1 <sup>st</sup> week of October to 4 <sup>th</sup> week of
	Rabi-Irrigated	-	-	1 <sup>st</sup> week of October-4 <sup>th</sup> week of	1 <sup>st</sup> week of October-4 <sup>th</sup> week	-

1.13	What is the major contingency the district is prone to? (Tick mark)	Regular	Occasional	None
	Drought	√	-	-
	Floods	-	-	√
	Cyclone	-	-	√
	Hail storm	-	-	√
	Heat wave	-	√	-
	Cold wave	-	√	-
	Frost	--	√	-
	Sea water intrusion	-	-	√
	Pests and disease outbreak (specify)	-	√	-
	Others (specify)	-	-	√

1.14	Include Digital maps of the district for		
		Location map of district within State as Annexure I	Enclosed: Yes / No
		Mean annual rainfall as Annexure 2	Enclosed: Yes / No
		Soil map as Annexure 3	Enclosed: Yes / No



### Soils of Ajmer district,Rajasthan



## 2.0 Strategies for weather related contingencies

### 2.1 Drought

#### 2.1.1 Rainfed situation

Condition	Major Farming situation	Normal Crop / Cropping system	Suggested Contingency measures		
			Change in crop / cropping system including variety	Agronomic measures	Remarks on Implementation
Early season drought (delayed onset)  Delay by 2 weeks (2 <sup>nd</sup> week of July)	Medium brown loamy soils	Sorghum-fallow	Sorghum-fallow	Use recommended practice of fertilizer application	Seed source 1.NSSC 2.RSSC 3.NSP
		Cotton-fallow	Cluster bean-fallow	-do	-do
		Green gram-fallow	No change		
		Cowpea -fallow			
	Deep brown loamy soils	Sorghum-mustard		Adopt conservation measures like mulching	Seed source 1.NSSC 2.RSSC 3.NSP
		Urdbean-mustard	No change	-do	-do
		Sesame-gram	No change		
		Cotton-wheat	Urdbean-fallow		
	Red gravelly loam hilly soils	Sorghum-mustard	No change	Adopt conservation measures like mulching	Seed source 1.NSSC 2.RSSC 3.NSP
		Urd bean-mustard		-do	-do
		Sesame-gram			
		Cotton-wheat	Urdbean-fallow		
		Urd bean-mustard	No change	-do	-do

		Sesame-gram	No change			
		Cotton-wheat	Urd bean-fallow			
<b>Condition</b>			<b>Suggested Contingency measures</b>			
<b>Early season drought (delayed onset)</b>	<b>Major Farming situation</b>	<b>Normal Crop/cropping system</b>	<b>Change in crop/cropping system</b>	<b>Agronomic measures</b>	<b>Remarks on Implementation</b>	
<b>Delay by 4 weeks (4<sup>th</sup> week of July)</b>	Medium brown loamy soils	Sorghum-Fallow	Greengram-fallow	Uprooting of weeds and using them as mulch  Seed soaking with 0.1% thiourea	Seed source 1.NSSC 2.RSSC 3.NSP	
		Cotton-fallow	Cowpea-fallow	-do	-do	
		Green gram-fallow	No change	-do	-do	
	Deep brown loamy soils	Sorghum-mustard	Urdbean-mustard	Follow conservation measures like mulching	Seed source 1.NSSC 2.RSSC 3.NSP	
		Urd bean-mustard	No change			-do
		Sesame-gram	Cowpea-gram			
		Cotton-wheat	Urdbean-fallow			
		Cluserbean-wheat	Urdbean-fallow			
	Red gravelly loam hilly soils	Sorghum-mustard	Urdbean-mustard	Follow conservation measures like mulch	Seed source 1.NSSC 2.RSSC 3.NSP	
		Urdbean-mustard	Urdbean-mustard			-do
		Sesame-gram	Cowpea-gram			
		Cotton-wheat	Urd bean-fallow			
		Cluserbean-wheat	Urdbean-fallow			



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 (2 <sup>nd</sup> week of August)	Medium brown loamy soils	Sorghum-Fallow	Greengram-fallow	Uprooting of weeds & using them as mulch  Seed soaking with 0.1% thiourea  Use short duration varieties like green gram (RMG-62,RMG-268, RMG-344), Cowpea (RC-19, RC-101)	
		Cluster bean-fallow	Cowpea-fallow	-do	
		Cotton-fallow	Greengram-fallow	-do	
		Cow pea	Greengram-fallow	Uprooting of weeds & using them as mulch  Seed soaking with 0.1% thiourea  Use short duration varieties like green gram (RMG-62,RMG-268, RMG-344), Cowpea (RC-19, RC-101)	
	Deep brown loamy soils	Sorghum-mustard	Urdbean-mustard	Follow conservation measures like mulch	
		Urd bean-mustard	No change	Use short duration Urdbean(U-19,RBU-7 and T-9)	
		Sesame-gram	Cowpea-gram	-	
		Cotton-wheat	Urdbean-fallow	Use short duration Urdbean(U-19,RBU-7 and T-9)	
		Clusterbean-wheat	Urdbean-fallow		

	Red gravelly loam hilly soils	Sorghum-mustard	Urdbean-mustard	Fallow conservation measures like mulch  Use short duration of pulses like Urdbean(U-19,RBU-7 and T-9)
		Urdbean-mustard	Urd bean-mustard	Use short duration of pulses like Urdbean(U-19,RBU-7 and T-9)
		Sesame-gram	Cowpea-gram	-
		Cotton-wheat	Urdbean-fallow	Use short duration of pulses like Urdbean(U-19,RBU-7 and T-9)
		Clusterbean-wheat	Urdbean-fallow	

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures				
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation		
<b>Early season drought (delayed onset)</b>  <b>Delay by 8 weeks (4<sup>th</sup> week of August)</b>	Medium brown loamy soils	Sorghum-fallow	Fallow-mustard	Fallow conservation measures like use of bukhar, spray of stress mitigating chemicals like thiourea etc.	Seed source 1.NSSC 2.RSSC 3.NSP		
		Cluster bean-fallow	Fallow-gram			-do	-do
		Cotton-fallow	Fallow-gram				
		Cowpea -fallow	Sorghum fodder-fallow				
	Deep brown loamy soils	Sorghum-mustard	Fallow-mustard	Fallow conservation measures like mulch	Sowing of rabi crop like mustard & gram		
		Urdbean-mustard	Fallow-mustard	-do	-do		
		Sesame-gram	Fallow-gram				
		Cotton-wheat	Fallow-mustard				
		Urdbean-wheat	Fallow-gram				

	Red gravelly loam hilly soils	Sorghum-mustard	Fallow-mustard	Fallow conservation measures like mulch	Sowing of rabi crop like mustard & gram
		Urdbean-mustard	Fallow-mustard	-do	-do
		Sesame-gram	Fallow-gram		
		Cotton-wheat	Fallow-mustard		
		Urdbean-wheat	Fallow-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)	Medium brown loamy soils	Sorghum	Uprooting weeds and using them as mulch	Spray thiourea @ 500 ppm and hoeing & weeding to conserve the moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Cotton	-do-	-do	-do
		Clusterbean	-do-		
	Deep brown loamy soils	Sorghum	Uprooting weeds and using them as mulch	Spray of thiourea @ 500 ppm and hoeing & weeding to conserve the moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA

		Sesamum	-do	-do	-do
		Urdbean			
		Cotton			
		Pigeon pea			
	Red gravelly loam hilly soils	Sorghum	Uprooting weeds and using them as mulch	Spray of thiourea @ 500 ppm and hoeing & weeding to conserve the moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Sesamum	-do	-do	-do
		Urdbean			
		Cotton			
		Pigeon pea			



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)					
At vegetative stage	Medium brown loamy soils	Cotton	Removal of alternate rows	Hoeing & weeding to conserve moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4. Water harvesting structure can be constructed under MANREGA
		Cowpea	-	-do-	-do-
		Sorghum	Removal of alternate rows	Hoeing & weeding to conserve moisture	
		Cluster bean	do-	-do Removal of alternate rows	
		Greengram	-	-do-	

	Rainfed deep brown loamy soils	Sorghum	Renewal of alternate rows for fodder	Spray of thiourea @ 500 ppm to conserve the moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Urd bean	-	Hoeing and weeding	-do-
		Sesamum		Spray of thiourea @ 500 ppm to conserve the moisture	
		Pigeon pea		Spray of thiourea @ 500 ppm to conserve the moisture	
		Cotton		Hoeing & weeding to conserve moisture	
	Red gravelly loam hilly soils	Sorghum	Renewal of alternate rows for fodder	Spray of thiourea @ 500 ppm to conserve the moisture	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Sesamum		-do	-do
		Pigeon pea		-do	
		Cotton		Hoeing & weeding to conserve moisture	
		Urdbean		-do-	

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)	At flowering/ fruiting stage	Medium brown loamy soils	Greengram	Harvest fodder	Hoeing & weeding to conserve moisture	Do not take rabi crops
		Sorghum	-do-	-do-	-do-	
		Cluster bean	-do-	-do-	-do-	
	Deep brown loamy soils	Sorghum	-do-	-do-	-do-	
		Sesamum	-do-	-do-	-do-	
		Pigeon pea	-do-	-do-	-do-	
		Cotton	-do-	-do-	-do-	
	Red gravelly loam hilly soils	Sorghum	-do-	-do-	-do-	
		Sesamum	-do-	-do-	-do-	
		Pigeon pea	-do-	-do-	-do-	
		Cotton	-do-	-do-	-do-	

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Crop management	Rabi Crop planning	Remarks on Implementation
Terminal drought (Early withdrawal of monsoon)	Medium brown loamy soils	Sorghum	Spray of stress mitigating chemicals	Do not take rabi cropping	Seed source 1.NSSC 2.RSSC 3.NSP 4.Water harvesting structure can be constructed under MANREGA
		Cluster bean	-do	-do-	-do
		Kharif pulses			
	Deep brown loamy soils	Sorghum			
		Sesamum			
		Pigeon pea			
		Cotton			
	Red gravelly loam hilly soils	Sorghum			
		Sesamum			
		Pigeon pea			
		Cotton			

## 2.1.2 Drought - Irrigated situation

Condition			Suggested Contingency measures		
	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Delayed release of water in canals due to low rainfall :			NA		

Condition			Suggested Contingency measures		
	Major Farming situation	Normal Crop/cropping system	Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Limited release of water in canals due to low rainfall:			NA		

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			NA		

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	Tank bed	Fallow-Mustard	No Change	Use moisture conservation techniques	
		Fallow-Gram			
		Fallow-Linseed			
		Fallow-Mustard-Watermelon			
		Fallow-Mustard-Muskmelon			
		Fallow-Gram-Cucurbits			

Condition	Major Farming situation	Normal Crop/cropping system	Suggested Contingency measures		
			Change in crop/cropping system	Agronomic measures	Remarks on Implementation
Insufficient groundwater recharge due to low rainfall	Irrigated Coarse textured soils	Clusterbean-wheat	Greengram-Mustard	Use recommended practices for fertilizer and weed control	
		Groundnut-wheat	Cowpea-Mustard	-do-	
		Cluster bean-barley	Clusterbean-gram	-do-	
	Irrigated medium textured soils	Cotton-wheat	Pearlmillet-barley	-do-	
		Groundnut-wheat	Greengram-Mustard	-do-	
		Sorghum-mustard	Urdbean-Mustard	-do-	
Any other condition (specify)	Brackish Irrigation water areas	Fallow-barley	Fallow-Fallow	Seed treatment with 0.1% NaCl	
		Fallow-wheat	Fallow-Fallow	-do-	

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

Condition	Suggested contingency measure			
	Vegetative stage	Flowering stage	Crop maturity stage	Post harvest
<b>Continuous high rainfall in a short span leading to water logging</b>				
Pearlmillet	Drain out Excess water			
Groundnut				
Sorghum				
Kharif Pulses				
Maize				
<b>Horticulture</b>				
Tomato	Drain out Excess water			
Brinjal				
Pea				
Carrot				

Radish	
<b>Heavy rainfall with high speed winds in a short span</b>	-NA -

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

Extreme event type	Suggested contingency measure			
	Seedling / nursery stage	Vegetative stage	Reproductive stage	At harvest
<b>Heat Wave</b>				
Wheat	-	-	Frequent irrigation & spray of Thiourea @500 ppm	
Barley	-		-do-	
Gram	-		-do-	
<b>Horticulture</b>	-			
Tomato	-	-	Frequent irrigation	Tomato
Brinjal	-	-		Brinjal
Pea	-	-		Pea
<b>Cold wave</b>				
Mustard	-	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	
Pea		-do-	-do-	
Gram		-do-	-do-	
Wheat		-do-	-do-	
Barley		-do-	-do-	

<b>Horticulture</b>				
Tomato		Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	
Brinjal		-do-	-do-	
Pea		-do-	-do-	
<b>Frost</b>				
Mustard	-	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	
Pea	-	-do-	-do-	
Gram	-	-do-	-do-	
Wheat	-	-do-	-do-	
Barley	-	-do-	-do-	
<b>Horticulture</b>				
Tomato	-	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	Light irrigation, Spray of 0.1 % H <sub>2</sub> SO <sub>4</sub>	Tomato
Brinjal	-	-do-	-do-	Brinjal
Pea	-	-do-	-do-	Pea



## 2.5 Contingent strategies for Livestock, Poultry & Fisheries

### 2.5.1 Livestock

	Suggested contingency measures		
	Before the event	During the event	After the event
<b>Drought</b>			
Feed and fodder availability	Provide Enough feed & fodder	Provide sufficient feed & fodder along with mineral mixture	Provide sufficient feed & fodder along with mineral mixture
Drinking water	Enough water for drinking	Provide sufficient water along with mineral mixture	Provide sufficient water along with mineral mixture
Health and disease management	-	Vaccinate against contagious diseases	Vaccinate against contagious diseases
<b>Floods</b>	NA		
Feed and fodder availability			
Drinking water			
Health and disease management			
<b>Cyclone</b>			
Feed and fodder availability			
Drinking water			
Health and disease management			
<b>Heat wave and cold wave</b>			

Shelter/environment management			
Health and disease management			

<sup>5</sup> based on forewarning wherever available

## 2.5.2 Poultry

	Suggested contingency measures			Convergence/linkages with ongoing programs, if any
	Before the event	During the event	After the event	
<b>Drought</b>				
Shortage of feed ingredients	Provide Enough feed	Provide sufficient feed along with mineral mixture	Provide sufficient feed along with mineral mixture	Provide Enough feed
Drinking water	Enough water for drinking	Provide sufficient water along with mineral mixture	Provide sufficient water along with mineral mixture	Enough water for drinking
Health and disease management	-	Vaccinate against contagious diseases	Vaccinate against contagious diseases	-
<b>Floods</b>	NA			
Shortage of feed ingredients				
Drinking water				
Health and disease management				
<b>Cyclone</b>	NA			
Shortage of feed ingredients	-	-	-	-

Drinking water	-	-	-	-
Health and disease management	-	-	-	-
<b>Heat wave and cold wave</b>				
Shelter/environment management	Normal condition	Cover the shelter from north side/west side and use heaters/coolers	Normal condition	Normal condition
Health and disease management	Normal condition	Vaccinate against diseases	Normal condition	Normal condition

<sup>a</sup> based on forewarning wherever available