State: Dibang Valley, Arunachal Pradesh

Agriculture Contingency Plan for District:

1.0 District Agriculture profile*				
1.1	**Agro-Climatic/Ecological Zone**			
	Agro Ecological Sub Region (ICAR)	Thermic humid midhills and valleys(53%),Alpine and Highhills(35%)		
	Agro-Climatic Zone (Planning Commission)	Eastern Himalayan Region, Zone- VI		
	Agro Climatic Zone (NARP)			
	List all the districts falling under the NARP Zone* (*>50% area falling in the zone)	Dibang Valley District		
	Geographic coordinates of district headquarters headquarters	**Latitude**	**Longitude**	**Altitude**
		37o33′ N & 24o30′ N	95o15′ & 97o30′ E	Anini (Dist. HQ) – 1968mtr, Mipi – 1836 Etalin – , Anelih – 1006mtr Arzoo – 1100mtr, Maliney – 1920mtr
	Name and address of the concerned ZRS/ ZARS/ RARS/ RRS/ RRTTS	ICAR **Research Complex Centre, Basar**		
	Mention the KVK located in the district with full address	**-**		
	Name and address of the nearest Agromet Field Unit (AMFU, IMD) for agro-advisories in the Zone	**ICAR Research Complex Centre, Basar**		

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):				
	NE Monsoon(Oct-Dec):				
	Winter (Jan- February)				
	Summer (March-May)				
	Annual	**3500-4050mm**			

1.3	**Land use pattern of the district** (latest statistics)	Geographical area	Cultivable area	Forest area	Land under non-agricultural use	Permanent pastures	Net Area	Land under Misc. tree crops and groves	Barren and uncultivable land	Current fallows	Other fallows
		13029 sq km	845	4149sqkm	322	435	3940	657	320	1560	1944

1. 4	Major Soils (common names like red sandy loam deep soils (etc.,)*	Area ('000 ha)**	Percent (%) of total geographical area
1.	Sandy loams to silty loam		
	Others (specify):		

* mention colour, depth and texture (heavy, light, sandy, loamy, clayey etc) and give vernacular name, if any, in brackets (data source: Soil Resource Maps of NBSS & LUP); ** Pl. give the details of the major soils occupying more than 5% of total geographical area. Degree of soil acidity (pH) may also be indicated

1.5	**Agricultural land use**	Area (‘000 ha)	Cropping intensity %
	Net sown area	2.91112ha	
	Area sown more than once	4.4158 ha	
	Gross cropped area	3.3527 ha	

1.6	**Irrigation**			
	Net irrigated area	93.65ha		
	Gross irrigated area	93.65ha		
	Rainfed area	3259.05 ha		
	Sources of Irrigation	Number	Area (‘000 ha)	Percentage of total irrigated area
	Canals	-		Area may be indicated
	Tanks			
	Open wells	-		
	Bore wells	1		
	Lift irrigation schemes	-		
	Micro-irrigation	-		
	Other sources (spring)			
	Total Irrigated Area	93.65ha	2431 ha	
	Pump sets	-		
	No. of Tractors			
	Groundwater availability and use* (Data source: State/Central Ground water Department /Board)	No. of blocks/ Tehsils	(%) area	Quality of water (specify the problem such as high levels of arsenic, fluoride, saline etc)
	Over exploited	Nil		
	Critical	Nil		
	Semi- critical	Nil		
	Safe	All		
	Wastewater availability and use	NA		
	Ground water quality	Safe		
*over-exploited: groundwater utilization > 100%; critical: 90-100%; semi-critical: 70-90%; safe: <70%				

1.6. a.	Fertilizer and Pesticides use	Type	Total quantity (tonnes)
1	Fertilizers*	Urea, DAP, Potash, SSP	
2	Chemical Pesticides*	Insecticides, Fungicides, Weedicides, Others (Specify)	

* If break up is not available, indicate total quantity used in the district for any recent year, mention here the year and source of statistic

1.7 Area under major field crops & horticulture (as per latest figures) (2016-17)

1.7	Sl.No.	Major field crops cultivated	Area ('000 ha)							
			Kharif			*Rabi*				
			Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Summer	Grand total
	1	Paddy	-	1.759	1.759	-	-	-	-	1.759
	2	Maize	-	1.948	1.948	-	-	-	-	1.948
	3	Millet	-	0.815	0.815	-	-	-	-	0.815
	4	Wheat	-	-	-	-	-	-	-	-
	5	Pulse	-	0.444	0.444	-	-	-	-	0.444
	6	Oilseeds	-	0.259	0.259	-	-	-	-	0.259
	7	Potato	-	0.162	0.162	-	-	-	-	0.162

	Sl.No.	Horticulture crops - Fruits	Area ('000 ha)		
			Total	Irrigated	Rainfed
	1	Apple	0.825		0.825
	2	Walnut	0.526		0.526
	3	Kiwi	1.096		1.096
	4	Pears	0.352		0.352
	5	Grapes	0.003		0.003
	6	Orange	0.178		0.178
	7	Pineapple	0.338		0.338
	8	Banana	0.065		0.065
	9	Guava	0.055		0.055
	Sl. No.	**Horticulture crops - Vegetables**	**Total**	**Irrigated**	**Rainfed**
	1	Potato	0.085		0.085
	2	Cauliflower	**0.007**		**0.007**
	3	Tomato	0.022		0.022
	4	Beans	0.115		0.115
	5	Cucumber	13.313		13.313

	6	Brinjal	0.125		0.125
	7	Pumpkin	0.147		0.147
	Sl. No.	**Medicinal and Aromatic crops**	**Total**	**Irrigated**	**Rainfed**
	1	Chirata	0.012		0.012
	2	Cinnamon	0.075		0.075
	3	Coptis teeta	0.010		0.010
	4	Paris Polyphylla	0.011		0.011
		Spices crops	**Total**	**Irrigated**	**Rainfed**
	1	Ginger	0.924		0.924
	2	Chilly	0.055		0.055
	3	Large Cardamom	0.036		0.036
		Flower crops	**Total**	**Irrigated**	**Rainfed**
	1	Rose	0.003		0.003
	2	Marigold	0.625		0.625
		Fodder crops	**Total**	**Irrigated**	**Rainfed**
	1				
		Total fodder crop area			
		Grazing land			
		Sericulture etc			
		Others (specify)			

1.8	**Livestock (2007)**	**Male (‘000)**	**Female (‘000)**	**Total (‘000)**
	Indigenous cattle			238
	Improved / Crossbred cattle			
	Buffaloes (local low yielding)	Nil	Nil	Nil
	Improved Buffaloes			
	Goat			1488
	Sheep			54
	Pig			2604
	Mithun			4297
	Yak			
	Others (Horse, mule, donkey etc., specify)			
	Commercial dairy farms (Number)			

1.9	**Poultry**	**No. of farms**	**Total No. of birds (‘000)**
	Commercial	-	12.544
	Backyard	-	

1.10 **Fisheries** (Data source: Chief Planning Officer)

A. Capture

i) Marine (Data Source: Fisheries Department)	**No. of fishermen**	**Boats**		**Nets**		**Storage facilities (Ice plants etc.)**
		Mechanized	Non-mechanized	Mechanized (Trawl nets, Gill nets)	Non-mechanized (Shore Seines, Stake & trap nets)	

ii) Inland (Data Source: Fisheries Department)	**No. Farmer owned ponds**	**No. of Reservoirs**	**No. of village tanks**

B. Culture

	Water Spread Area (ha)	**Yield (t/ha)**	**Production (‘000 tons)**
i) **Brackish water** (Data Source: MPEDA/ Fisheries Department)			
ii) **Fresh water** (Data Source: Fisheries Department)			
Others			

Source: Fishery department, Govt. of Arunachal Pradesh

1.11 Production and Productivity of major crops (Average of last 5 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 (qtl/ha)	
Major Field crops (Crops to be identified based on total acreage)										
Crop 1	Paddy	2.451	13.93	-	-	-	-	2.451	13.93	
Crop 2	Maize	2.732	14.02	-	-	-	-	2.732	14.02	
Crop 3	Millet	0.825	10.12	-	-	-	-	0.825	10.12	
Crop 4	Wheat			-	-	-	-			
Crop 5	Pulse	0.313	7.05	-	-	-	-	0.313	7.05	
Crop 6	Oilseeds	0.256	9.88	-	-	-	-	0.256	9.88	
Crop 7	Potato	0.891	55	-	-	-	-	0.891	55	
Fruit Crops										
Crop 1	Apple	0.016	-	-	-	-	-	0.016		
Crop 2	Walnut	0.285						0.285		
Crop 3	Kiwi	0.975						0.975		
Crop 4	Pears	0.115	-	-	-	-	-	0.115		
Crop5	Grapes	0.005						0.005		
Crop 6	Orange	0.755	-	-	-	-	-	0.755		
Crop 7	Pineapple	0.475	-	-	-	-	-	0.475		
Crop8	Banana	0.105						0.105		
Crop 9	Guava	0.005	-	-	-	-	-	0.005		
Crop1	**Potato**	0.027						0.027		
Crop2	**Cauliflower**	0.125						0.125		
Crop3	**Tomato**	0.235						0.235		
Crop4	**Beans**	9.075						9.075		
Crop5	Cucumber	0.104						0.104		
Crop6	Brinjal	0.013						0.013		
Crop 7	Pumpkin	0.021		-	-	-	-	0.021		

Crop 1	Ginger	0.765	-	-	-	-	-	0.765	49.04	
Crop 2	Large Cardamom	0.995	-	-	-	-	-	0.995		
Crop3	Chillies	0.057						0.057		
Flower Crops										
Crop 1	Rose	0.059						0.059		
Crop2	Marigold	0.001						0.001		
Medicinal and Aromatic Crops										
Crop1	Chirata	0.084						0.084		
Crop 2	Cinnamon	0.045						0.045		
Crop 3	Coptis teeta	0.080						0.080		
Crop 4	Paris polyphylla	0.088						0.088		

Director Of Agriculture and Director of Horticulture

1.12	**Sowing window for 5 major field crops** (start and end of normal sowing period)	Rice	Maize	Rapeseeds	Millet	Potato	
1	Kharif- Rainfed	April 1st week-May Last week	March last week to April 1st week	May 1st week to May last week	July Last week to August 1st Week	March 1st week to March last week	
2	Kharif-Irrigated						
3	Rabi- Rainfed						
4	Rabi-Irrigated						

1.13	**What is the major contingency the district is prone to?** (Tick mark)	**Regular***	**Occasional**	**None**
	Drought			✓
	Flood			✓
	Cyclone			✓
	Hail storm		✓	
	Heat wave			
	Cold wave		✓	
	Frost	✓		
	Sea water intrusion			
	Snowfall		✓	
	Landslides		✓	
	Earthquake			✓
	Pests and disease outbreak (specify)			✓
	Others (like fog, cloud bursting etc.)			✓

*When contingency occurs in six out of 10 years

1.14	**Include Digital maps of the district for**	Location map of district within State as Annexure I	Enclosed: Yes

ANNEXURE I


UPPER DIBANG VALLEY
CIRCLE/TEHSIL MAP
CHINA
Mipi
Anini
Etalin
Anelih
Kronli
(Arzoo
circle)
Upper Siang
Lower Dibang Valley
Lohit
Anjaw
Legend
International Boundary
District Boundary
Circle/Tehsil Boundary
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(Last Updated on 25th Aug 2015)

2.0 Strategies for weather related contingencies

2.1 Drought –
2.1.1 Rainfed Situation
2.1.1 .1 Pre- monsoon (Last week of February)

Conditions			**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 (2^{nd} to 3^{rd} week of March)	Upland	Pre-kharif maize (local land races) Orange,Kiwi, Walnut	No change	No change	
	Midland	Jhum-Maize (local land races) Vegetable-French Bean,Cowpea	No change	No change	
	Low land	*Ahu* paddy (local land races)	No change	No change	
		Maize (local land races)	No change	No change	
Delay by 4 weeks (1^{st} week of	Upland	Pre-kharif short duration maize (local land races),	Summer Black Gram-SBC-40,SBC-47,PU-3		
		Vegetable	French bean,Cowpea		

April)	Midland	Jhum-Maize (local land races)	Black Gram USJD 113, KU 301	• Use Closer spacing of Rice 15 X 15 cm • Close the drainage hole and check the seepage loss in direct sown rice regularly. • Withhold N fertilizer application till receipt of rainfall. • Follow plant protection measures against stem borer and blast in nursery. • Use tractor, power tiller, rotavator for speedy land preparation. • Follow close planting of 4-5 seedlings per hill. Apply full P, K and 50 % N at the time of transplanting.	Line dept. schemes/ RKVY
	Low land	*Jhum* paddy (local land races)	Short Duration Maize		
		Maize (local land races)	Short Duration Maize	• Use Closer spacing of Rice 15 X 15 cm • Close the drainage hole and check the seepage loss in direct sown rice regularly. • Withhold N fertilizer application till receipt of rainfall. • Follow plant protection measures against stem borer and blast in nursery. • Use tractor, power tiller, rotavator for speedy land preparation. • Follow close planting of 4-5 seedlings per hill. Apply full P, K and 50 % N at the time of transplanting	
Delay by 6 weeks (3rd Week of April)	NA				NA
Delay by 8weeks (2nd Week of May)	NA				NA

2.1.1 .2 South west monsoon - normal (1st week of May)

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**
Delay by 2 weeks (May 3rd week)	Upland	*Kharif* maize	No change	
		Terrace rice cultivation	No change	
	Low land	*Kharif* maize	No change	
		Terrace rice cultivation	No change	
	Midland	Kharif maize	No change	
		Colocasia	Summer vegetables	Mulching with local bio-mass (tree litter)

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 4 weeks (1st week June)	Upland	*Kharif* maize-Blackgram	Local land races of maize Intercrop with Legumes (Soybean) and oilseeds (sesame) and local cucumbers	Mulching with local bio mass.	-
		Terrace rice cultivation	Medium duration variety RCM-9, MTU-1010	ICM	
	Midland	*Kharif* maize-Black Gram	Local land races of maize Intercrop with Legumes (Soybean) and oilseeds (sesame) and local cucumbers	Mulching with local bio- mass. throughout the cropping period	
		Terrace rice cultivation	Medium duration variety Abishak	ICM	
	Low Land	Terrace rice cultivation	Medium duration variety Abishak	ICM	

		Kharif maize	Local land races of maize Intercrop with Legumes (Soybean) and oilseeds (sesame) and local cucumbers	Mulching with local bio mass.	

***6-8 week's delay of South west monsoon is not applicable in the district.**

2.1.4 Monsoon- Normal

Condition			Suggested Contingency measures		
Early season drought (Normal onset)	**Major Farming situation**	**Normal Crop/ cropping system**	**Crop management**	**Soil nutrient & moisture conservation measures**	**Remarks on Implementation**
Normal onset followed by 15-20 days dry spell after sowing leading to poor germination/crop stand etc.	Upland	Kharif maize	I. If there is poor germination (Less than 30%) resowing II. Gap filling III. life saving irrigation if possible **IV.** Weeding	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	Line dept. schemes/ RKVY
		Ginger	I. If there is poor germination resowing of rhizomes II. intercultural operations.	In situ moisture conservation, mulching with locally available bio mass and life saving irrigation if possible	Line dept. schemes/ RKVY
	Mid land	Jhum paddy	I. If there is poor germination (Less than 30%) re-sowing II. Keep Weed free	In situ moisture conservation, mulching with locally available bio mass	-
		Blackgram	I. If there is poor germination (Less than 30%) re-sowing II.Keep Weed free	In situ moisture conservation, mulching with locally available bio mass	
		Soyabean	I. If there is poor germination (Less than 30%) re-sowing II. Keep Weed free	In situ moisture conservation, mulching with locally available bio mass	
	Lowland	Terrace rice cultivation	No change	Transplanting of 30-35 Days old seedlings	-
		Maize Blackgram Soyabean	I. If there is poor germination (Less than 30%) re-sowing II. Gap filling III. Weeding	In situ moisture conservation, mulching with locally available bio mass	-
		Ginger	Weeding, Management of Pest and Disease	Mulching	

2.1.5 Monsoon Normal

Condition			Suggested Contingency measures		
Mid season drought (Long dry spell consecutive 2 weeks rainless long dry)	**Major Farming situation**	**Normal Crop/cropping system**	**Crop management**	**Soil nutrient & moisture conservation measures**	**Remarks on Implementation**
Vegetative stage	Upland	Kharif maize	Weeding/ intercultural operations etc.	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	Line dept. schemes/ RKVY
		Ginger	intercultural operations,weeding. Pest and Disease management	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	
	Midland	Terrace rice cultivation paddy	Foliar spray with 2 % urea and MOP	-	
		Ginger	Weeding/ intercultural operations etc. IPM	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	
	Lowland	Jhum paddy	Weeding Foliar spray with 2 % urea and MOP after rain	-	-
		Maize	Weeding/ intercultural operations etc. Foliar spray with 2 % urea and MOP	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	

2.1.6 Monsoon Normal

Condition			Suggested Contingency measures		
Mid season drought (Long dry spell consecutive 2 weeks rainless long dry)	**Major Farming situate ion**	**Normal Crop /cropping system**	**Crop management**	**Soil nutrient & moisture conservation measures**	**Remarks on Implementation**

At flowering / fruiting stage	Upland	Kharif, Maize,	Weeding/ intercultural operations etc. Life saving irrigation.	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	**RKVY**
		Ginger	Intercultural operation,IPM	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	
	Midland	Terrace rice cultivation paddy	Foliar spray with 2 % urea and MOP	-	
		Ginger	Weeding/ intercultural operations etc.	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	
	Lowland	Jhum paddy	Weeding	-	
		Maize	Weeding/ intercultural operations etc.	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	
	Moderately to gentle sloping hills slopes with deep loamy skeletal to fine loamy soils	Jhum paddy	Weeding	-	
		Maize	Weeding/ intercultural operations etc.	rain water harvesting as resource conservation technology, mulching with locally available bio mass, and earthing up	

2.1.7 Terminal drought

Condition			Suggested Contingency measures		
Terminal drought (Early withdrawal of monsoon)	**Major Farming situation[a]**	**Normal Crop /cropping system**	**Crop management**	**Soil nutrient & moisture conservation measures**	**Remarks on Implementation**
	Upland	Kharif, Maize,	Mulching Life saving irrigation if possible If grain filling is severely affected harvest for fodder	Land preparation for early rabi sowing of linseed, toria/pea	
		Ginger *	Mulching Harvest at physiological maturity	Life saving irrigation through rain water harvesting	
	Midland	Terrace rice cultivation paddy	If grain filling is severely affected harvest for fodder	Land preparation for early rabi sowing of linseed, toria/pea	
		Ginger	Mulching Harvest at physiological maturity		
	Lowland	Jhum paddy	If grain filling is severely affected harvest for fodder	Land preparation for early rabi sowing of linseed, toria/pea	
		Maize	Mulching and Life saving irrigation if possible Harvest at physiological maturity	Life saving irrigation through rain water harvesting	

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

2.3 Floods: Not Applicable

2.4 Extreme events- Hailstorm

Extreme event type	Suggested contingency measure[r]			
	Seedling / nursery stage	**Vegetative stage**	**Reproductive stage**	**At harvest**
Hailstorm				
	NA	NA	NA	Harvest and value addition

	NA	NA	NA	Harvest and value addition
	NA	NA	NA	NA

* Other extreme events are not applicable in this district

2.5 Contingent strategies for Livestock, Poultry & Fisheries

2.5.1 Livestock

	Suggested contingency measures		
	Before the events	**During the event**	**After the event**
Drought			
Feed and fodder availability	• Construction of Feed Storage • Hay/Silage making • Increase production of animal feed blocks • Establishment of Cold Storage • Cultivation of Maize, jowar, oats, bajral, etc.	• Feeding of cone feeds. • Feeding of banana leave • Feeding of dry fodders • Splitting of daily ration into a minimum of two feeds per day • Feeding of Molasses & Grains • Feeding of Kitchen wastes/ left over feeds.	• Application of Manure, fertilizers, etc. to increase soil fertility • Planting of green fodders • Cultivation of Maize, jowar, oats, bajra, etc.
Drinking water	1) Making of Rain Water Harvesting dams 2) Water storage Tanky 3) Planting of green fodder having high moisture contents 1) Construction of Ponds.	1) Feeding fodders having high moisture contents like banana leaves, Aloe , Para grass, congo grass, guinea grass, etc.	• Construction of water storage Tanky • Feeding of adequate amount of drinking water.
Health and disease management	• Regular Supplementation of livestock with Vitamins and Minerals • Vaccination and Deworming should be done regularly. • Feeding of balanced diet • Restriction of the entry into	• Proper disposal of Manure • Regular cleaning of sheds. • Vaccination and Deworming • Disinfection of sheds. • Feeding of silage • Provision for drinking	• Disinfection and sanitation of all the shed • Movement other than the attendant into the farm premises should be restricted. • Proper disposal of dead animals.

	• the farm premises. • Isolation of diseased or suspected animals.	adequate amount of wholesome drinking water. • Restriction of entry into the farm premises • Proper disposal of death animals.	
Floods			
Feed and fodder availability			
Drinking water			
Health and disease management			
Cyclone			
Feed and fodder availability			
Drinking water			
Health and disease management			
Heat wave and cold wave			
Shelter/environment management			
Health and disease management			
Snowfall			
Earthquake			
Landslides			

[S] based on forewarning wherever available

2.5.2 Poultry

	Suggested contingency measures			**Convergence/linkages with ongoing programs, if any**
	Before the event[a]	**During the event**	**After the event**	
Drought				
Shortage of feed ingredients	• Construction of feed storage • Regular	• Feeding of broken rice mixed with concentrate feed in the ration of 1:1	• Feeding of concentrate feeds • Proper	

	supplementation of Poultry with Vitamins and Minerals • Silage making. • Feeding of Concentrate feeds	• Feeding of garbage, kitchen waste. • Feeding of green leaves and stems of Spilanthus Bidens pilosa, Conyza auriculata. • Feeding of Mean and wholesome drinking water • Feeding of Vitamins & Minerals.	vaccination.	
Drinking water	• Construction of rain water harvesting structure. • Construction of ponds. • Planting of green leaves having high moisture content • Provision for feeding clean & wholesome drinking water	• Feeding of concentrating feeds. • Feeding of green leaves and stems of Spilanthus spp, Bidens pilosa, Coryza auriculata. • Regular Supplementation of poultry with vitamins. • Feeding of Melon/ water melon/ cucumber.	• Harvesting of Rain water. • Planting of green fodder. • Application of fertilizers and manure to increase soil fertility. • Feeding of clean & wholesome drinking water	
Health and disease management	• Regular supplementation of poultry with Vitamins and Minerals. • Regular vaccination and deworming • Feeding of balanced diet • Restriction of entry into farm premises • Isolation of diseased or suspected birds.	• Proper disposal of water • Regular cleaning of sheds • Feeding of balanced ration. • Provision of adequate amount of drinking water. • Proper disposal of dead birds. • Vaccination and deworming. • Supplementation with vitamins & Minerals	• Disinfection and sanitary measures should be alone in all the sheds. • Proper disposal of waste, dead birds, etc. • Cleaning of the sheds.	
Floods				
Shortage of feed ingredients				
Drinking water				
Health and disease management				
Cyclone				
Shortage of feed ingredients				
Drinking water				
Health and disease management				

Heat wave and cold wave				
Shelter/environment management				
Health and disease management				
Snowfall				
Earthquake, Landslides etc				

[a] based on forewarning wherever available

2.5.3 Fisheries/ Aquaculture: - Not applicable-

		Suggested contingency measures		
Conditions	**Before the eventa**	**During the event**	**After the event**	**After the event**
1) Drought	Not applicable-			
2) Floods				
A. Capture				
B. Aquaculture				
3. Cyclone / Tsunami				
4. Heat wave and cold wave				