**RDRS Bangladesh**

**CCCP sub Project, Kurigram.**

**Matrix of an Adaptation Action Plan of CCCP sub project.**

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| --- | --- | --- | --- | --- | --- | --- |
| **Problem / Risk** | **Impacts** | **Existing Practice** | **Future Needs** | **Resource** | **Institution/**  **stakeholders** | **Time/ Duration** |
| Flood | * Infrastructures (house, road and School college) submerged * Loses and damages of agricultural crops * Lose of agricultural land and cattle. * Dissemination of vector borne diseases * Increased water borne disease. * Food security is at extreme risk. * Communications systems, safe water and sanitation become obsolete. * Damage Agricultural field by sand sediment. * Disrupt education activities and transport system. * Decreased work opportunity and changed occupation. * Increased distress to old, disable and pregnant woman | * Take temporary sheltered at house shed, others raise plinth and embankment. * Sell their valuable assets and advance labour. * Stay on boat or banana raft. * Tree plantation around houses. * Plinth raising * Store dry food * Prepare movable cooking stove * Make new boat and repair old boat. | * Construction of the Infrastructures (Raised plinth and school ground, construction of road and embankment, installation tube well and latrine) considering the highest flood level. * Innovation the flood tolerant crop varieties and introduction the cultivation of floating vegetables. * Preserve seed for food security and stock dry food, cooking stove, emergency medicine and oral saline. * Arrange vaccination programme for livestock after flood. * Formation of Groups, volunteers for social security and emergency response | * Adequate earth * Adequate land * Laborious/ hard worker * Skill man power * Boat or banana tree * Volunteer group. | * CBO’s * UP * NGOs * Upazila administration and line agencies (DAE, Livestock, Fisheries, LGED, DPHE, USWD, UWAO, PIO etc). | Short term  Short term  Short term  Short term  Long term |
| River erosion | * Infrastructures (house, roads, institution and Shelters) collapsed by river erosion * Arable lands are eroded and food production decreases. * Lose of agricultural land cattle and households assets * Health hazards due to absence of clean water and sanitation. * Lose and damage of agricultural crops * Increasing poverty and the deterioration of the social well being. * migration for employment * Increased unemployment and family strife. | * Population density grows to high land * Temporary shelter grows up to the embankment and government land. * Increased child labor * Increased migration | * Construction of embankment and blocked dam. * Tree plantation * Distribution of grant or without interest loan to overcome risks. * Introduce IGA to economic development. | * Local and indigenous knowledge to protect river erosion. * Bamboo, Straw and wood tree plantation * Skilled manpower | * CBO’s * UP * NGOs * Upazila administration and line agencies (DAE, Livestock, Fisheries, LGED, DPHE, USWD, UWAO, PIO etc). | Long term  Short term  Short term  Short term  Long term |
| Cold wave | * Reduced crop production and growth * Increased mortality rate * Increased the incidence of diseases to human and livestock * Decreased work opportunity and employment. | * Traditional heating system inside and outside the house * Spending the whole day idle inside the house. * Uses warm cloth * Use jute gunny bag to protect the livestock | * Using warm cloth * Cold tolerant crop cultivation. * Cold tolerant homestead vegetable cultivation * Aforestation. * Vaccination program. * Technical training for IGA. | * Local and indigenous knowledge to protect cold wave. * Bamboo and wood tree plantation * Skilled manpower | * CBO’s * UP * NGOs * Upazila administration and line agencies (DAE, Livestock, Fisheries, LGED, DPHE, USWD, UWAO, PIO etc). | Short term |
| Strom | * Destroyed houses and trees. * Damaged crop * Sudden death of people and animals by thunder storm and fallen treee * Capsized the boat. * Forestation widespread damage. | * Change and fitted new bamboo poles with home. * The stake pulled with a rope from the shed. Temporary fix by bamboo. * During the storm stay under cot. * Banana and tree plantation around the houses * Keep low height of the houses * Understanding the forecast of storm by looking at the sky | * Housing by RCC pillar. * Established semi -paka housing at permanent char * Forest wall around the houses * Forecasting the storm by radio and electric media. * Trained rescue team buildup. * Develop Early warning system * Develop Disaster Volunteers * First aid team buildup. | * Laborious/ hard worker * Confident and brave * Skill man power * Social cohesion/ bonding | * CBO’s * UP * NGOs * Upazila administration and line agencies (DAE, Livestock, Fisheries, LGED, DPHE, USWD, UWAO, PIO etc). | Short term |
| Drought | * Increased disease. * Increased sun heat. * Water table down. * Changed occupation. * Damaged agriculture field. * Soil cracked and fertility lost. * Less rainfall. * Dry ponds, fields, rivers and cannels. | * Tree plantation around houses. * Block wise tree plantation. * Installation deep tube well. * Excavation and re-excavation pond. | * Aforestation. * Drought tolerance crops cultivation. * Irrigation system scaled up and up gradation * Use organic manure to increase soil fertility. | * Skilled manpower. * Adequate lands for pond excavation * River water * Adequate lands for tree plantation. | * CBO’s * UP * NGOs * Upazila administration and line agencies (DAE, Livestock, Fisheries, LGED, DPHE, USWD, UWAO, PIO etc). | Short term |

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