

## Report on Focused Group Discussion (FGD)

Conducted for the pre-feasibility study of the Extended Community Climate Change Project-Drought

For the present study, the research team carried out random semi-structured group interviews with some resource persons and community leaders who are directly involved to irrigation, agriculture and water management. Six (06) Focus Group Discussions (FGDs) from each district were carried out in the study areas. The districts were selected based on existing literature. The participants of the FGDs were briefed about the purposes of the discussions and they were very much willing to give their opinion to the research team. The issues mainly discussed like sources of water, climate change and its impact, trigger of climate change, main causes of climate change, human involvement in the climate change and possible adaptation measures. Some outcomes of the discussions are narrated below.

### **FGD-1**

Location: Village- South Mohor, Union- Talondo, Upazila- Tanore, District- Rajshahi

Date: 04/12/2021

Time: 10:30 am

List of FGD-1 participants is given below:

Sl.	Name	Age	Education	Gender	Profession
1	Md. Gaziul Islam	40	HSC	Male	Business
2	Soken Karmakar	50	Illiterate	Male	Local Government Representative
3	Sri Harish Karmakar	35	Primary	Male	Farmer
4	Khoda Box	46	Illiterate	Male	Farmer
5	Akkas Ali	28	Primary	Male	Farmer
6	Mohsin Ali Sarkar	57	Illiterate	Male	Farmer
7	Md Jahangir Alam	45	Bachelor of Arts	Male	Religious leader
8	Kajim Uddin	51	Illiterate	Male	Farmer
9	Saiful Sheikh	38	Primary	Male	Business
10	Amal Karmakar	41	Primary	Male	Farmer
11	Kamrul Islam	35	Bachelor of Arts	Male	Teacher

Observations of the participants during the discussion:

### **Md. Gaziul Islam**

Asked what are the main sources of water in their area and Mr. Islam shared that people in the area collect water from deep tube wells (DTWs) installed by Barind Multipurpose Development Authority (BMDA) and only a minor portion of the population are using water from different surface water bodies such as ponds, *kharies (channels)*, canals, *beels* and rainwater.

Whether climate change or drought caused by human actions respondent shared that emission of carbon dioxide from burning fuels and withdrawal of excessive water are among the factors accelerating climate change in the area.

### **Sri Harish Karmakar**

In a query whether he has noticed any variation of climate respondent, Sri Harish Karmakar responded positively. Asked about the nature of changes, he mentioned that irregular/unseasonal rainfall and increasing temperature are main causes triggering climate change in the area.

### **Md. Jahangir Alam**

If the area is suffering from any natural disasters, respondent Md. Jahangir Alam expressed that the area is suffering from natural disasters. The area suffers mainly from storm, lightning and droughts. Whether they are experiencing climate change (disaster) in the area the respondent replied positively.

Asked how does climate change affect their harvest/livelihood at present and in the past, the respondent replied that less rainfall and high temperature are hampering crop production due to drought..

### **Kamrul Islam**

Asked about the ways people in the do adopt to the effects of climate change, respondent Mr. Kamrul Islam noted that they are trying to adopt through local adaption measures like less water use, storing water in rainy season and crop diversification.

About suggestions/recommendations regarding climate events adjustment/replication/adaptation he added that it is necessary to increase use of surface water through excavation of new water bodies and re-excavation of existing natural water bodies.

Whether he thinks that there are enough water management laws, he asserted that there are available laws regarding regulation of water use but these are not properly enforced.

Asked what he thinks are the reasons for the drought situation in the area: is it affected by climate change or it is due to man-made factors, such as industrialization/ deforestation/ wetland degradation/ excess surface absorption of water/ over-use of surface and groundwater etc. the respondent pointed at wetland degradation and over-use of groundwater as man-made factors.

Whether he thinks that these distant shortcomings will have a long-term effect or not, he replied positively that these distant shortcomings will have long-term effects upon the climate of the area.

### **Akkas Ali**

About how the people of the area adapt to climate change or the agricultural practices of the region, he pointed tree plantation, planned water development management under government management.

In query about GOs and NGOs assistance in tackling climate change or drought, he shared views that GOs and NGOs are working to tackle the effect of drought and climate change.

Rest of the participants supported the above-mentioned views as well.

### **FGD-2**

Location: Village- Barinda, Union- Tentulia, Upazila- Porsha, District- Naogaon,

Date: 05/12/2021

Time: 10:00 am

List of FGD participants:

<b>Name</b>	<b>Age</b>	<b>Gender</b>	<b>Education</b>	<b>Profession</b>
Rabeya	35	Female	HSC	Housewife
Taibali	42	Male	Primary	Farmer
Ajida Begum	30	Female	Secondary	Housewife
Alauddin	56	Male	Primary	Farmer
Ajida Begum	26	Female	Secondary	Housewife
Mujaharul	55	Male	Illiterate	Farmer
Rafiqul Sardar	57	Male	Illiterate	Farmer
Anisur Rahman	56	Male	Illiterate	Farmer
Rozina Begum	26	Female	Primary	Housewife
Riyad	32	Male	Secondary	Farmer
Azizul Haque	35	Male	Bachelor of Arts	Teacher
Sirajul Islam	29	Male	Secondary	Business
Md Irfan Hossain	25	Male	HSC	Business

### **Rabeya**

About the main sources of water in their area Ms. Rabeya told that most of the people of their village use BMDA deep tubewells (DTWs), but some people also use surface water from ponds, *beels* or canals (*Khari*).

Asked whether climate change or drought in the area are caused by human actions, she mentioned that anthropogenic activities have a great role to resist the climate change tendency with their known and unknown destructive effects.

About variations of climate, she affirmed that they are noticing variations in the nature of the climate and mentioned unseasonal rainfall and drought as their modes of manifestation.

### **Taibali**

Another participant Taibali in query about facing any natural disasters agreed that they are facing natural disasters in the form of local floods and droughts. About experiences of climate change (disaster) he mentioned that every year they are facing drought, high temperature and other forms of natural calamities.

About the effects of climate change upon harvest/livelihood in the past and at present, Mr. Taibali asserted that less rainfall and high temperature are hampering crop production due to drought..

### **Ajida Begum**

About the ways to adapt to the effects of climate change, Mrs. Ajida Begum noted that actually they have nothing to do but they are trying to adopt with the situation based on the situation by reducing the irrigation based agriculture. She also suggested increasing usage of surface water and rain water instead of groundwater for irrigation and other purposes.

When trying to know about her suggestions/recommendations regarding climate events adjustment/replication/adaptation, she insisted to increase use of surface water through excavation of new water bodies and re-excavation of existing natural water bodies, tree plantation and reducing groundwater usage.

Asked whether she thinks that there are enough water management laws she replied that there are lots of laws regarding water management but those are not enforced properly.

### **Azizul Haque**

When asked what does he think about the reasons for the drought situation in the area: is it affected by climate change or it is due to man-made factors, such as industrialization/ deforestation/ wetland degradation/ excess surface absorption of water/ over-use of surface and groundwater etc. participant Mr. Azizul Haque mentioned that wetland degradation, deforestation and excessive use of groundwater are the main factors triggering climate change in the area.

Asked whether he thinks that the distant shortcomings will have a long-term effect or not, Mr. Haque affirmed that the short term effects of climate change may ultimately turn to long term effects on socio-economic condition of the area.

### **Md. Irfan Hossain**

How do people of the area suffer from the effects of climate change on the agricultural practices, Md. Irfan Hossain mentioned that they suffer a lot from the impacts of climate change. About what he thinks should be done to mitigate such impacts he noted tree plantation, reducing use of groundwater, planned water development management under government management as main aspects which should be given priority.

Asked if there is any GOs and NGOs assistance in tackling climate change or drought in the region Mr. Hossain said that the GOs and NGOs are working to tackle the effect of drought and climate changes.

Rest of the participants also supported the above answers.

### **FGD-3**

Location: Village- South Mohor, Union- Fatehpur, Upazila- Nachole, District- Chapai Nawabganj

Date: 04/12/2021

Time: 02:30 pm

List of FGD participants:

<b>Name</b>	<b>Age</b>	<b>Education</b>	<b>Gender</b>	<b>Profession</b>
Srimati Nanda Rani	35	Primary	Female	Labour
Rupali	28	HSC	Female	Housewife
Faiz Ali	38	Primary	Male	Farmer
Abdul Hakim	44	Primary	Male	Farmer
Soloman	54	Illiterate	Male	Farmer
Alam Ali	36	Primary	Male	Farmer
Amena Begum	40	Primary	Female	Farmer
Srimati Arjana Rani	28	Secondary	Female	Housewife
Laboni Rani	29	Secondary	Female	Housewife
Rezaul Karim	32	Primary	Male	Farmer

Observations of the participants during the discussion:

### **Faiz Ali**

Asked about the main sources of water for irrigation and other purposes in their area, Mr. Faiz Ali mentioned that most of the people of the area use water from BMDA and private deep tubewells (DTWs) for drinking and irrigation purposes. He also mentioned that climate change or droughts in their area are caused by human actions such as industrialization/ deforestation/ wetland degradation/ excessive use of surface and groundwater etc.

### **Rezaul Karim**

Another participant Mr. Rezaul Karim mentioned that they are noticing variations of climate in the form of unseasonal rainfall and scarcity of water. Moreover, they are facing natural disasters in the area in the form of storm and sometimes heavy rainfall, which according to him are the consequences of climate change.

### **Rupali**

A query about how climate change impacts on harvest/ livelihood in the area earlier and at present, Ms. Rupali mentioned that this hardships in timely crops growing are faced due to lower amount of rainfall, high temperature and drought. She added that we, the women face more difficulties because we have to collect water for household purposes including drinking, washing, livestock rearing etc. During drought, we have to go distant to collect these water.

### **Srimati Nanda Rani**

According to Ms. Srimati Nanda Rani, the people of her area, especially she are unable to manage the losses incurred due to the impacts of climate change.

In response to query about her suggestions/ recommendations regarding climate events adjustment/ replication/ adaptation, Ms. Rani mentioned that integrated use of surface water, rain water and groundwater to cultivate lower water consuming crops like maize and wheat instead of rice.

Regarding water management laws, she pointed that there are sufficient laws, but these laws are either poorly implemented or not implemented at all.

Asked what she considers as the reasons for the drought situation in the area: is it affected by climate change or it is due to man-made factors, such as industrialization/ deforestation/ wetland degradation/ excess surface absorption of water/ over-use of surface and groundwater etc. Ms. Rani specifically mentioned wetland degradation and over-use of groundwater as the reasons for the drought situation in the area.

About the distant shortcomings which will have long-term effect she shared that short-term effects of climate change will ultimately turn to long-term effects on food security of the area.

Ms. Rani added that sometimes during drought, we cannot take bath due to lack of water. This cause our skin diseases. Children (girls and boys) face dehydration. Thus, teament cost increased. Besides, women have different issues of cleanliness that we cannot do properly due to lack of water.

### **Alam Ali**

What measures to combat climate change and save the existing agricultural practices of the region, Mr. Alam Ali focused on tree plantation and reducing use of groundwater.

About GO and NGO assistance in tackling climate change or drought in the area, Mr. Ali shared views that GOs and NGOs did not assist to tackle the effect of drought and climate change in the area.

Rest of the participants supported the above answers.

#### **FGD-4**

Location: Village- Goalkari, Union- Boro Bari, Upazila- Baliadangi, District- Thakurgaon

Date: 06/12/2021

Time: 11:30 am

List of FGD participants:

<b>Name</b>	<b>Age</b>	<b>Education</b>	<b>Gender</b>	<b>Profession</b>
Md. Torikul Islam	34	HSC	Female	Business
Ali	40	Primary	Male	Farmer
Sima Begum	27	Secondary	Female	Housewife
Sri Tabanu Chandra Sing	32	HSC	Male	Farmer
Nurjahan Begum	28	Secondary	Female	Housewife
Mostafizur Rahman	45	Primary	Male	Farmer
Rafiqul Islam	47	Primary	Male	Farmer
A. Rahman	56	Illiterate	Male	Farmer
Rozina Begum	26	Primary	Female	Housewife
Md Mosarul Islam	35	Primary	Male	Farmer
A H Haque	35	HSC	Male	Teacher
Md. Arman Ali	35	Secondary	Male	Business
Mehedi Hasan	29	HSC	Male	Business

Observations of the participants during the discussion:

#### **Md. Torikul Islam**

About the main sources of water in their area, Mr. Md. Torikul Islam mentioned that people of the area are using tubewells for their drinking purpose and surface water for their irrigation purpose. He also pointed that climate change or drought in many cases caused by human activities. He also claimed that anthropogenic activities have a great role in intensification of the climate change tendency with their known and unknown destructive activities.

#### **Sri Tabanu Chandra Sing**

The respondent mentioned that he has noticed variations of climate causing unseasonal and less rainfall. Mr. Sing also affirmed facing natural disasters in the form of drought and storm.

### **Md. Mosarul Islam**

In query about experiencing climate change (disaster), Mr. Md. Mosarul Islam answered positively.

Regarding the impacts of climate change on cultivation/livelihood earlier and at present, the respondent answered that yes, it's hampering their livelihood through less crop production due to drought, less rainfall and high temperature for which it is not possible to grow crops timely.

### **Md. Arman Ali**

Regarding adaptation measures to combat the effects of climate change Mr. Ali replied that they could find no measures to handle it.

In response to query about suggestions/ recommendations regarding climate events adjustment/ replication/ adaptation the participant mentioned integrated use of surface water, rain water and groundwater. He also suggested re-excavating existing natural water bodies, tree plantation, reducing groundwater use and storing water during the rainy season. He also suggested for short duration crop varieties, drought-resilient, agriculture etc.

About water management laws he shared having no idea.

Asked what he thinks about the reasons for the drought situation in the area, whether it is induced by climate change or it is due to man-made factors, such as industrialization/ deforestation/ wetland degradation/ excess surface absorption of water / over-use of surface and groundwater etc. Mr. Ali pointed that wetland degradation, industrialization and over-use of groundwater are the main actors.

Asked whether he is aware that the distant shortcomings which will have long-term effect he said that short-term effects of climate change will ultimately turn to long-term effects on agricultural production and food security of the area.

### **Mostafizur Rahman**

Answering to query about how they could contribute to adapt to climate change or the agricultural practices of their region he suggested increasing tree plantation, planned water development management under government initiative.

About GO and NGO assistance in tackling climate change or drought he shared the view that GOs and NGOs were not seen to help to tackle the effect of drought and climate changes.

And rest of the participants supported the above answers.

### **FGD-5**

Location: Village- Masidpur, Union- Alihat, Upazila- Hakimpur, District- Dinajpur

Date: 06/12/2021

Time: 03:30 pm

List of FGD participants:

<b>Name</b>	<b>Age</b>	<b>Education</b>	<b>Gender</b>	<b>Profession</b>
Md. Azizur Rahman	41	HSC	Male	Business
Partha Karmakar	49	Illiterate	Male	Farmer
Md. Belal	28	Primary	Male	Farmer
Ibrahim	37	Secondary	Male	Business
Akkas Ali	28	Primary	Male	Farmer
Mohsin Ali Sarkar	57	Illiterate	Male	Farmer
Taharu Islam	29	Secondary	Male	Business
Kajimuddin	51	Illiterate	Male	Farmer
Saiful Sheikh	38	Primary	Male	Farmer
Ruhul Amin	39	Secondary	Male	Business
Kamrul Islam	45	HSC	Male	Teacher

Observations of the participants during the discussion:

### **Md. Azizur Rahman**

About the main sources of water, Mr. Md. Azizur Rahman responded that the people of the area are using both deep tube wells (DTWs) and shallow (Hand) tube wells (STWs) for drinking purposes though for irrigation purpose they are use only BMDA deep tube well r, but some of them are using pond water for drinking purpose especially in rainy season.

Asked whether climate change or drought caused by human actions the respondent mentioned that climate change or drought in many cases caused by human activities. He also affirmed that human activities have a great role in intensification of the climate changing tendency with their known and unknown destructive activities.

About the consequences of variation of climate he mentioned heavy rainfall, flood and unseasonal and irregular rainfall. The area is facing natural disasters like storm and droughts.

### **Ibrahim**

The respondent shared about experiecnes climate change (disaster). Asked how does climate change affect their harvest/livelihood in the past and at present he shared that climate change is hampering their livelihood through decrease in crop production due to draught, lower rainfall and higher temperature for which it is not possible to grow crops timely.

### **Taharul Islam**

Asked whether he could adapt to the effects of climate change Mr. Islam answered that he could not handle it. As his opinion about suggestions / recommendations regarding climate events adjustment / replication / adaptation measures Mr. Taharul Islam suggested regular electricity supply for operating deep tube wells, rain water and groundwater, store excess water in the rainy season in *beels*, ponds and *kharies* for use during dry season.

### **Ruhul Amin**

Asked whether he thinks that there are enough water management laws he shared that he does not know, but it is good to have and implement water management laws.

In a query about what he thinks about the reasons for the drought situation in the area, whether it is induced by climate change or it is due to man-made factors, such as industrialization/ deforestation/ wetland degradation/ excess surface absorption of water/ over-use of surface and groundwater etc. Mr. Ruhul Amin mentioned that lack of proper maintenance and management of the surface water bodies, excessive temperature, industrialization and over-use of groundwater are the main reasons.

He expressed his negative view about the understanding that the distant shortcomings will have a long-term effect.

### **Md. Belal**

About the adaptation measures to combat effects of climate change on the agricultural practices in their region and what he thinks should be done to ensure such adaptations he pointed increased tree plantation, reducing use of groundwater, conservation of surface water bodies such as *beels*, ponds and *kharies* to increase surface water use, planned water development management of water.

Respondent reported that GOs and NGOs activities or initiatives in tackling climate change or drought were not seen to help to tackle the effect of drought and climate changes.

And rest of the participants supported the above answers.

### **FGD-6**

Location: Village- Tripura, Union- Bagjana, Upazila- Panchbibi, District- Joypurhat

Date: 05/12/2021

Time: 03:20 am

List of FGD participants:

<b>Name</b>	<b>Age</b>	<b>Education</b>	<b>Gender</b>	<b>Profession</b>
Sahabur Islam	40	Honors	Female	Teacher
Rupa	30	Primary	Female	Housewife
Md. Mominul Islam	27	Secondary	Male	Farmer
Abdul	42	Primary	Male	Farmer
Solaiman Ali	47	Illiterate	Male	Farmer
Taslim Uddin	25	Primary	Male	Business
Amena Bibi	40	Primary	Female	Farmer
Rostum Ali	43	Secondary	Male	Business
Abu Bakkar	35	Secondary	Male	Business
A. Karim	32	Primary	Male	Farmer

Observations of the participants during the discussion:

### **Sahabur Islam**

About the main sources of water in their area, Mr. Sahabur Islam mentioned that most of the people are using tubewells for their drinking purpose and pond, river, canal and BMDA deep tubewells for their irrigation purpose.

In response to query whether climate change or drought caused by human actions, Mr. Islam noted that climate change or drought in many cases are caused by human activities. He also affirmed that human activities such as emission of carbon dioxide from burning fuels, intensive withdrawal of groundwater, cutting trees, brick manufacturing factories, lack of awareness have a great role in intensification of the climate changing tendency with their known and unknown destructive activities.

### **Md. Mominul Islam**

Participant Mr. Md. Mominul Islam mentioned that irregular and unseasonal rainfalls are consequences of variation of climates.

### **Rostum Ali**

Answering to query whether they are facing any natural disasters in their locality, Mr. Rostum Ali mentioned that frequent storms and droughts result from climate change and they are experiencing the impacts of climate change.

Answering a query about how does climate change affect their harvest and livelihood in the past and at present, Mr. Ali stated that climate change is hampering their livelihood through decrease in crop production caused by drought, low and unseasonal rainfall and increasing temperature. All these factors are responsible imbalanced growth of crops.

### **Abu Bakkar**

Mr. Abu Bakkar reported that he could not adapt to the effects of climate change which resulted in to lower crop production.

Regarding suggestions/ recommendations regarding climate events adjustment/ replication/ adaptation he suggested re-excavating existing natural surface water bodies, reducing groundwater use, storing water during the rainy season for use in dry seasons. He also suggested that mitigation of climate change effects is possible through increased tree plantation and conservation of water bodies.

The respondent mentioned about existence of enough water management laws, but reported lack of their proper implementation.

Asked what does he think are the reasons for the drought situation in the area: is it affected by climate change or it is due to man-made factors, such as industrialization/ deforestation/ wetland degradation/ excess surface absorption of water/ over-use of surface and groundwater etc. he mentioned that both climate change and manmade activities such as wetland degradation and over-use of groundwater, deforestation, bricks manufacturing are responsible.

Mr. Bakkar also said that the long-term effects of climate change would be lower crop production and scarcity of foods.

### **Taslim Uddin**

The respondent reported that adequate tree plantation, reducing use of groundwater, increasing use of surface water from *beels*, ponds and *kharies*, planned water development management under government management could be the adaptation measures to mitigate climate change impacts and save agricultural practices in their region.

He also noted that GOs and NGOs are working to help them for drought and climate change mitigation in some cases.

Rest of the participants supported the above answers.

