

Annex-1

Questionnaire at community level



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**Survey Questionnaire on
“Implication of ICT in Flash Flood Management: A Case Study of
Sunamganj District, Bangladesh”**

Name of the Respondent:	Interviewer:
Name of the Village:	Date:
Name of the Union:	Sample No:
Name of the Upazila:	

Part I: Demographic features

1. Gender: Male Female				
2. Age:				
3. Education:				
Illiterate	Primary school	Secondary school	College	Graduate
4. Occupation:				
Agriculture	Services	Business	Day labour	Other
5. Types of House: Pacca: <input type="checkbox"/> Semi pacca: <input type="checkbox"/> Katcha: <input type="checkbox"/>				
6. Location of house: Bank of river <input type="checkbox"/> Bank of haor <input type="checkbox"/> Road side <input type="checkbox"/>				

Part II: ICT Application for Flash Flood

1. Do you hear/know about flash flood? Yes ☐ No ☐
If yes, how often does flash flood usually occur in your locality?

<input type="checkbox"/> Twice in a year	<input type="checkbox"/> Once in every year	<input type="checkbox"/> Once in two years interval
<input type="checkbox"/> Once in three years interval	<input type="checkbox"/> Once in five years interval	

2. Please mention the occurrence month of flash flood

<input type="checkbox"/> Early April-Late April	<input type="checkbox"/> Mid April – mid May	<input type="checkbox"/> Late of April-Mid May	<input type="checkbox"/> Early May-Late May
<input type="checkbox"/> Early September-Late September	<input type="checkbox"/> Mid September-Mid October	<input type="checkbox"/> Late September-Mid October	<input type="checkbox"/> Early October-Late October

3. Please mention the duration of flash flood in your locality?

<input type="checkbox"/> >1 day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2-3 days	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2-3 Week
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4. How long water stands in your locality due to the occurrence of flash flood?

<input type="checkbox"/> >1 day	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2-3 days	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2-3 Week
<input type="checkbox"/> 1 Month	<input type="checkbox"/> 1-2 Month	<input type="checkbox"/> 3-4 Month	<input type="checkbox"/> 6 Month	More than 6 Month

5. Please mention various sectors affected by flash flood in your locality

<input type="checkbox"/> Livelihoods	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Fisheries	<input type="checkbox"/> Livestock	<input type="checkbox"/> Education
<input type="checkbox"/> Infrastructure	<input type="checkbox"/> Settlements	<input type="checkbox"/> Health	<input type="checkbox"/> Displacement /migration	<input type="checkbox"/> Safe Drinking water
<input type="checkbox"/> Sanitation	<input type="checkbox"/> Food security			

6. How do you get flash flood information in your locality?

<input type="checkbox"/> Neighbor	<input type="checkbox"/> Community leader	<input type="checkbox"/> Imam	<input type="checkbox"/> Local volunteer
<input type="checkbox"/> Government Offices	<input type="checkbox"/> NGOs	<input type="checkbox"/> Schools	<input type="checkbox"/> Colleges

<input type="checkbox"/> Television	<input type="checkbox"/> Radio	<input type="checkbox"/> SMS	<input type="checkbox"/> Mobile phone
<input type="checkbox"/> Internet/ email	<input type="checkbox"/> Miking	<input type="checkbox"/> Public gathering	

7. Which types of logistics you have to support ICT

<input type="checkbox"/> Cell phone	<input type="checkbox"/> PC	<input type="checkbox"/> Internet
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8. How many times you use this logistics in your daily life?

<input type="checkbox"/> Daily	<input type="checkbox"/> Weekly
<input type="checkbox"/> Fortnightly	<input type="checkbox"/> Monthly

9. Do you familiar with the various types of internet use?

<input type="checkbox"/> Facebook	<input type="checkbox"/> Messenger	<input type="checkbox"/> Viber
<input type="checkbox"/> Skype	<input type="checkbox"/> Imo	

10. Do have internet connection in your mobile phone? Yes ☐ No ☐
if yes, which types of application you use through mobile phone?

<input type="checkbox"/> Facebook	<input type="checkbox"/> Messenger	<input type="checkbox"/> Viber
<input type="checkbox"/> Skype	<input type="checkbox"/> Imo	

11. Please mention various types of ICT used in your locality to reduce the flash flood risk (Please put tick)

SL no	Forms of ICT	Presence of Various forms of ICT	
		Yes	No
1	Internet		
	Email		
	Facebook		
2	GIS		
3	Remote sensing		
4	Satellite Radio/technology		
5	Space Technology		
6	Mobile Technology (Mobile phone)		
	(SMS)		

7	Cell broadcasting		
8	Amateur and Community Radio		
9	Broadcast Radio		
10	Telephone		
11	Television		
12	Wireless Sensors Networks		

If yes,

12. Which types of activities done by ICT through institution to reduce the flash flood risk in your locality? (Please put tick)

SL no	Forms of ICT	Prediction	Forecasting	Early warning	Preparedness	Response	Recovery
1	Internet						
	Email						
	Facebook						
2	GIS						
3	Remote sensing						
4	Satellite Radio/technology						
5	Space Technology						
6	Mobile Technology						
	Mobile phone						
	(SMS)						
7	Cell broadcasting						
8	Amateur and Community Radio						
9	Broadcast Radio						
10	Telephone						
11	Television						
12	Wireless Sensors Networks						

13. Please mention sector wise ICT application for flash flood reduction by the community

Sl no	Name of the sector	Name of the forms of ICT	Name of the activities done through ICT
1	Livelihoods		
2	Agriculture		
3	Fisheries		
4	Livestock		
5	Infrastructure		
6	Settlements		
7	Health		
8	Others		

[Like what kind of ICT they use for planting, harvesting, going for fishing...etc. May be they listen whether news using mobile, may be share the news with friends, may be take decision related to harvesting, house construction]

14. Please mention the sector wise ICT application for flash flood reduction through your institution

Sl no	Name of the sector	Types of ICT	Activities/Purpose
1	Livelihoods		
2	Agriculture		
3	Fisheries		
4	Livestock		
5	Infrastructure		
6	Others		

(eg: In case of livelihood, to secure livelihood, early warning has been provided through sms/mobile phone in flash flood affected area. Again in case of agriculture, early harvesting of crop can be provided through union digital center by utilizing internet)

15. Please mention the constraints of ICT to localize in your locality (Both for community and institution)

Sl no	Name of the constraints	Put tick (√)
1	Power failure	
2	Limited resource	
3	Poor dissemination system	
4	Inadequate funding	
5	Illiteracy	
6	Expensiveness of the ICT applications	
7	Access and transportation	
8	Lack of timely dissemination	
9	Poor coordination with the institution	
10	Others	

16. Please mention the expectation and opinion of local community to localize ICT

<input type="checkbox"/> Information on flash flood early warning	<input type="checkbox"/> Capacity building and strengthening of the institution	<input type="checkbox"/> Utilization of union digital centre for flood forecasting
<input type="checkbox"/> Community capacity building	<input type="checkbox"/> Coordination among various organizations	<input type="checkbox"/> Introduction and dissemination of early rice variety through ICT
<input type="checkbox"/> Easily accessible of ICT	<input type="checkbox"/> Following crop calendar according to the flash flood	<input type="checkbox"/> Skilled ICT operator
<input type="checkbox"/> Data from mobile operators are real time and low cost	<input type="checkbox"/> Training	<input type="checkbox"/> Timely accessible ICT service
<input type="checkbox"/> Easily understandable	<input type="checkbox"/> Community radio	

17. Please mention the constraints of community to make ICT familiar and accessible to apply

<input type="checkbox"/> Lack of quality life	<input type="checkbox"/> Illiteracy	<input type="checkbox"/> Access and transportation
<input type="checkbox"/> Located on remote area	<input type="checkbox"/> Poor communication with institutions <input type="checkbox"/>	<input type="checkbox"/> Lack of training
<input type="checkbox"/> Lack of willingness to adopt ICT technology	<input type="checkbox"/> Poor awareness about flash flood response	<input type="checkbox"/> Poor Social Capital



Questionnaire survey at Institutional level



Questionnaire survey at Community level



Focus group discussion



Key interview

Annex II: Pictorial view of field activities