SIMPLIFIED EARLY ACTION PROTOCOL

Nepal, Western Terai| Flood

NRCS volunteers and local people mobilised to strengthen embankments, preventing floodwater from entering the settlements. (Photo: Nepal Red Cross Society)

sEAP №: **sEAP2024NP01**	Total Budget **CHF 199,964**	Readiness: **CHF 71,485**	Prepositioning: **CHF 58,229**	Early Action: **CHF 70,250**
People to be assisted: **10,500 People**	sEAP approved: **04/06/2024**	sEAP timeframe: **2 Years**	sEAP lead time: **Readiness: 3-5 days** **Activation: 48hrs**	Operational timeframe: **3 months**

Prioritized geographical areas:

- Tikapur Municipality, Janaki Rural Municipality, Geruwa Rural municipality, Rajapur Municipality and Madhuwan Municipality along Karnali river
- Barbardiya Muncipality, Thakurbaba Municipality, Madhuwan Municipality and Gulariya Municipality along Babai River
- Rapti sonari Rural municipality, Duduwa Rural municipality and Narainapur Rural municipality along West Rapti river

RISK ANALYSIS AND EARLY ACTION SELECTION

Prioritized hazard and its historical impact.

Flood is the most severe of the hazards observed in Nepal in terms of physical and socioeconomic losses and destruction. Koshi, Karnali, and Narayani are the major river systems in Nepal, and floods from these large perennial river systems generally impact several districts in the Southern Terai plains. Moreover, rivers such as West Rapti, and Babai Rivers, which originate in the Mahabharat range, do more damage in the Terai floodplains because they frequently generate flash floods during the monsoon. Moreover, the Terai's vulnerable topography, combined with its dependency on agriculture, exacerbates the severity of flood hazards compared to other regions.

In 2017, the prolonged rainfall across Nepal from 11-14 August 2017 brought flooding across 31 districts of Nepal. The southern Terai region was particularly affected with an estimated 450,000 people affected by flooding, 43 people were killed. According to the Government of Nepal, National Planning Commission Post Disaster Need Assessment Report (PDNA) 2017, it has been estimated that 41,626 houses were destroyed, and 150,510 houses were damaged by the flooding. Over 126,282 ha of paddy were damaged during the flooding, with higher-value crops such as vegetables and aquaculture also suffering significantly. Moreover, the flooding affected over 812,000 poultry, 9,400 cattle, and 74,000 sheds.

The targeted flood-prone areas are the Terai districts along the flood plains of Karnali, Babai and West Rapti rivers, namely Banke, Bardiya and Kailali. frequently affected due to flooding in the monsoon period. People living along these rivers especially low-lying areas, informal settlements, fragile houses, and those who have low-income status and a number of dependent family members to care for, are highly vulnerable to flooding; especially during the monsoon (June to September). Major flood disasters took place in 2006, 2008, 2013, 2014 and 2017 that drained Bardiya, Kailali and Banke districts. Particularly, the monsoon of 2014 and 2017 resulted in widespread flooding in Karnali, Babai & West Rapti rivers and brought devastation to several villages and municipalities of Bardiya, Kailali and Banke districts. This flood was caused by excessive rainfall. Flood water inundated most of the infrastructure such as roads; bridges; culverts; local markets; livestock; crops and daily consumables damaged. Highways linking Banke to Bardiya district were blocked due to flood/landslides affecting the daily movement of already affected people. Flooding impacts were also reported in Banke district during the years 2013 and 2019, when the West Rapti river suddenly rose beyond the danger level bringing floods to several municipalities of Banke district. There have also been instances of flood impacts outside the monsoon season, for example, the 2021 October flooding in Karnali Flood that affected several areas of Kailali districts.

NRCS has undertaken extensive household data collection along the flood plains of Karnali, Babai & West Rapti River basins 2021-2022. The analysis shows that 33,794 families are living in Tikapur Municipality, Janaki Rural Municipality, Geruwa Rural Municipality, Rajapur Municipality and Madhuwan Municipality along the Karnali river. Likewise, 25,247 families are living in Barbardiya Municipality, Thakurbaba Municipality, Madhuwan Municipality and Gulariya Municipality along the Babai River. And 21032 families are living in Rapti Sonari Rural Municipality, Duduwa Rural municipality, and Narinapur Rural Municipality along the West Rapti.

Explain which risks have been selected for this protocol and why

There is a high possibility of flooding in these river basins where several settlements with dense populations are located along these three rivers. So, in case of any major floods in these river basins following impacts are anticipated across the people living in these areas:

- Loss of lives, injuries and missing
- Displacement of People
- Damage and Destruction to houses.
- Damage to crops and loss of livelihoods.
- Loss of livestock
- Contamination of Drinking water – Waterborne disease outbreak

- Poor Hygiene and Low-Quality Living
- Disruption to critical services – e.g., schools, healthcare, electricity, transport etc.

However, NRCS in consultation with flood-prone municipalities and communities has prioritised the following three impacts of floods which this SEAP aims to minimize through some concrete sets of anticipatory interventions:

1. Loss of lives and livelihoods:
2. Contamination of drinking water leading to water-borne diseases
3. Poor Hygiene and Low-Quality Living (including protection issues) of girls/women of the reproductive age group.

These impacts were prioritised based on previous experience and the capacity of NRCS to implement relevant early actions and response operations for the flood events in the prioritised river basins, and also considering the feasibility of relevant early actions in the available lead time. Most of the houses in target areas are made of brick and mud mortar and also the targeted areas are in low plain areas. In case of any flooding, the damage to houses may contribute to the loss of lives of the people. In addition, people may have a short lead time to escape from the areas to safer places, possibly the high chances of casualties of humans and livestock.

People living in these areas are more dependent on agriculture, crop farming and animal husbandry, which are at high risk of the impact from flooding. People living in targeted areas are using drinking water from tube wells or natural springs and previous disaster events have evidenced that water contamination due to floods is most common in these areas. Also, there are several instances of the outbreak of waterborne diseases due to contamination of drinking water following the aftermath of major flood events and local inundation. Also, the quality of living of those most vulnerable is further compromised, especially the women groups and adolescent girls who face protection issues and less hygienic living impacting their reproductive health.

Describe the selected early actions and explain how they will address the risks and lead to the intended outcome

The proposed early actions were selected to address the aforementioned three major flood impacts in targeted areas of selected river basins. The actions were mainly identified in linkage with the risks and possible impacts. The actions were also identified based on the NRCS existing capacity, resources, and previous experiences. Basically, these actions are planned to mitigate the impact of flood on the lives and livelihoods of vulnerable people.

1. Disseminate early warning messages. (Using hand mike and IEC materials)
2. Evacuate the most vulnerable population and their livestock.
3. Distribute waterproof bags for the storage of important documents.
4. Mobilize WASH volunteers for water treatment and distribution of jerry cans.
5. Distribute dignity kits to the most vulnerable women groups and adolescent girls.

Early actions relating to early warnings and evacuation are aimed at minimizing the loss of lives and livelihoods of the most vulnerable due to flooding in the rivers. The distribution of waterproof bags prior to the event will help the people to ensure the most important documents and any in-house cash or valuable items etc. are safely stored. Distribution of jerry cans can enable households to store clean and safe drinking water beforehand and ensure the provisioning of safe drinking water in the event of likely contamination of water sources due to flood inundation. Similarly, NRCS has planned to mobilize WASH volunteers in the field and evacuation centers to test water quality and purify water using water treatment reagents. This is targeted specifically at evacuation centers to support the evacuated population. NRCS will coordinate with WASH sectors under the local governments for the testing of reagents and management of water supply.

Overall, the intervention will minimize the likely possibility of any waterborne disease outbreak due to the intake of contaminated water. Distribution of dignity kits beforehand will ensure more hygienic and dignified living of women and girls during and post-flood situations. All these planned early action activities will be carried out in close participation of the local communities as well as coordination and collaboration with local governments

and other actors. While conducting the early actions, NRCS PGI minimum standards (focusing on Dignity, Access, Participation and Safety) will also ensure that the services are inclusive and target the most vulnerable and at-risk population.

For monsoon 2024, IFRC/Danish Red Cross has secured funding from ECHO (crisis modifier) which will complement this operation along the same priorities and add cash transfers to most at-risk populations.

EARLY ACTION INTERVENTION

Overall objective of the intervention	The proposed early action interventions aim to reduce the loss of people's lives, basic household items and livestock of the most vulnerable population living in the flood plains with the provisioning of clean and safe drinking water and hygienic living.
Potential geographical high-risk areas that the simplified EAP would target	The simplified EAP will cover three river basins, namely Karnali, Babai and West Rapti and target the early action interventions in three flood-prone Terai districts, Banke, Bardiya and Kailali of Western Nepal. The Karnali river is a perennial transboundary river which originates from the Himalayas in the Tibetan Plateau and flows through the steep and rugged mountainous terrain of West Nepal, covering a catchment area of 49,000 km2 up to Nepal-India border. Tikapur Municipality, Janaki Rural Municipality, Geruwa Rural Municipality, Rajapur Municipality and Madhuwan Municipality of Kailali and Bardiya districts lie along the flood plains of Karnali river. The Babai originates from low mountains in the Mahabharat hills and flows in a northwest direction enclosed by these hills on either side, then flows southwards as it passes through the Royal Bardiya National Park in the Terai plains. As the river enters the Terai plains, its dynamics change from a straight path to numerous ox-bow formations downstream which is dictated by local slope conditions and the sediment fluxes. Both the Karnali and Babai are only a few kilometres apart, each river having its unique dynamics, but similar issues of flooding that impact the downstream communities. Barbardiya Municipality, Thakurbaba Municipality, Madhuwan Municipality and Gulariya Municipality of Bardiya district are affected by flooding in Babai River. The West Rapti River originates from the middle mountains of mid-western Nepal and enters the Terai plains via the Siwaliks and drains into the Ghagra River - tributary of Ganges in India, covering a catchment area of 5200 km2. The West Rapti basin usually suffers from flash floods as the catchment response to high intensity and short-duration precipitation is swift leading to flooding and water-logging downstream areas of Banke district. The municipalities affected by the flooding in West Rapti are Rapti Sonari Rural Municipality, Duduwa Rural Municipality, and Narinapur Rural Municipality. River hydrology for these rivers is greatly affected by monsoon rains, which last from June to September. From July to September, these rivers experience high discharge. Decreased flows in October-November continue till April whilst pre-monsoon rains, snowmelt and thunderstorms increase the discharge in May. The peak monsoon flow of rivers in West Nepal can be a hundred times greater than its lowest flow; For example, the winter discharge for Karnali is on average 500 m3/sec whereas the peak monsoon discharge during floods is greater than 15,000 m3/sec (DHM dataset). For rain-fed river such as the West Rapti the winter discharge is 11 m3/sec whilst the peak monsoon discharge is around 8,000 m3/sec.

	Since 2019, NRCS has been working on forecast-based action/anticipatory action in Babai, Karnali and West Rapti rivers and the district chapters have strong knowledge and capacities to deliver needed assistance and implement action in anticipation of the flood in the target areas. In addition, NRCS has already collected detailed household risk data of the flood-prone municipalities of these districts which has been now integrated with the government flood impact-based forecasting dashboard, which will inform the overall targeting of the households and beneficiaries. In addition, the existing well-established community-based flood early warning system in these districts provides a unique opportunity for NRCS to deliver early action much more effectively and efficiently in the target areas.
Who will be assisted through this operation and what criteria will be used for their selection?	NRCS will implement early action activities targeting the most at-risk households based on the flood exposure level, vulnerability, and coping capacity. Household Criteria identified for each category are listed below: **Flood Hazard Exposure** • Vicinity to river and embankments • Affected population in past flood events. • Houses Destroyed in past flood events. • Cropland/livestock affected in past flood events. **Vulnerability** • Flood Frequency (number of times the flood occurred/affected the household) • House type/quality (unbaked brick, bamboo etc.,) • HH Demography – Marginalized, Dependent Population (Children, Older people, lactating/pregnant mothers, PWD, Women headed, etc.) • Poverty Level (Household Income level) • Livelihood type (Single or multiple income source –diversified livelihoods) **Coping Capacity** • Engagement in community groups • Access to flood early warnings • Access to flood shelters or high grounds • Access to safe drinking water • Access to education • Access to health facilities • Access to social protection systems There is already a flood impact-based forecasting (IBF) dashboard developed using the aforementioned risk indicator covering the flood-prone municipalities of Babai, Karnali and West Rapti river. The IBF system is also integrated into the BIPAD system of National Disaster Risk Reduction Authority. The IBF dashboard is able to quantify the risk level at the household level based on different indicators of flood exposure, vulnerability (physical, social, and economic) and coping capacity (see annex for more details and weightage around risk indicators and IBF dashboard visualisation) The households with high risk and impact scores of the flood-prone municipalities/wards will be prioritised. However, the list of households will be validated together with community group members ahead of every monsoon season and further reverified in the case of forecasted flood event and their scale and extent of inundation.

Trigger(s) statement

The Department of Hydrology and Meteorology (DHM) of Nepal issues a three-day flood and weather bulletin on a daily basis during the monsoon season. The flood bulletin includes the river level forecast information indicating the likely trend of river levels and a prediction on whether the river will flow above or below the danger level at different river gauge stations. This also includes the river level forecast information of Karnali, Babai and West Rapti at Chisapani, Chepang and Kusum stations respectively.

Depending on the severity of flood flows and associated risk level, respective rivers and their downstream districts are also highlighted with different colors – yellow, amber and red. These flood bulletins are produced based on the forecast outcomes from the DHM's flood forecasting models (HEC HMS & Mike 11). Also, there is an operational Regional Flood Outlook from ICIMOD which covers Karnali and West Rapti rivers.

The weather bulletin however provides information on the rainfall forecast for the next three days. Also, in case of any significant weather phenomenon, special weather advisories or flood advisories are also issued by DHM a few days in advance.

For the real-time monitoring of triggers, the existing IBF in the BIPAD system shall be utilized, which will fetch the GLOFAS data and put a readiness alert in the system. Regarding the DHM Forecast bulletin and other relevant rainfall forecast sources, this will be manually monitored by the NRCS (with support from Climate Centre and DHM) and accordingly, the activation trigger will be confirmed.")

Readiness Trigger (3-5 days lead time)

The readiness trigger for Karnali, Babai and West Rapti will be reached when Global Flood Awareness System (GLOFAS) predicts more than 2-year return period flow in next 3 to 5 days with a probability of 50% or more at Chisapani, Chepang and Kusum station respectively.

Alternatively, the readiness trigger for Babai and West Rapti will also be confirmed when the numerical weather prediction (NWP) from DHM/RIMES or any special weather advisories/bulletin from DHM predicts extreme and widespread rainfall for next three days across those basin areas and districts provided that these rivers are already flowing at stage level less than 2m from existing danger level.

Activation Trigger (48h lead time):

River Name	Station Name	Existing Danger Level (metre)	Threshold River Level (metre)
Karnali	Chisapani	10.8	11.8
West Rapti	Kusum	7.8	7.8
Babai	Chepang	6.8	6.8

The activation trigger for Karnali will be reached when the DHM flood forecast bulletin or regional flood outlook from ICIMOD or any special flood advisories from DHM predict the water level of Karnali in Chisapani to rise 1 metre above the existing danger level in the next 48 hours.

	The activation trigger for Babai and West Rapti River will be reached when the DHM flood forecast bulletin or regional flood outlook from ICIMOD or any special flood advisories from DHM predict water levels of Babai and West Rapti to rise to their existing danger levels in Chepang and Kusum station respectively in next 48 hours. Although, much of the operational readiness, prepositioning and preparation for proposed early action will take place well ahead following the start of monsoon, the confirmation of readiness trigger will make sure all the necessary field preparation for evacuation and relocation of prepositioned support items to local chapters/warehouses etc. are completed. Following the activation trigger with 48h lead time, the NRCS will start the process of dissemination of Early Warning Messages to the downstream communities of respective Karnali, Babai and West Rapti river. The activation trigger will also mobilise the volunteers to flood vulnerable communities of Banke, Bardiya and Kailali to distribute jerry cans, waterproof storage bags, dignity kit and hygiene kits to the most vulnerable household/population groups of at-risk areas, including supporting them in storing the movable assets and food grains in safe place. A potential list of the most vulnerable households that need to be evacuated will also be identified and validated at this stage. Also, following the activation trigger, temporary safe shelters and livestock sheds will be constructed or managed in the already identified safe areas and evacuation sites. However, the evacuation of the most vulnerable population and their livestock will only be implemented once the rivers surpass the danger level (based on the real-time river status from DHM) and are in a rising trend in respective gauging stations. This means there is a stop mechanism in place especially for the action related to the evacuation of the population.
Trigger threshold justification	The proposed trigger mechanism makes use of existing flood forecast information provided by the Flood Forecasting Section of Department of Hydrology and Meteorology (DHM) - the authoritative designated national entity to provide flood-related warnings in Nepal. The triggers are based on the flood flow forecast at Chisapani station of Karnali River, Chepang Station of Babai River and Kusum Station of West Rapti River. Existing danger levels set by the DHM have been used as the basis for setting up the thresholds for target river basins. In the past, these three rivers have surpassed their danger levels a number of times (see annex 1), however the year 2014, 2017, 2021 and 2022 were particularly significant in terms of humanitarian impact. A simple correlation between the river levels and observed impact in these flood years (see annex 3) indicated that the existing danger level might not cause significant humanitarian impact, but if the river level rose above 1 metre from the existing danger level, especially for Karnali, the impact would follow an exponential rise afterwards. Hence the trigger threshold for Karnali river will be 1 m above the existing danger level. For the West Rapti river and Babai River, the impact curve indicated when the water level reaches its existing danger level the significant humanitarian impact rises. Hence, the trigger threshold for west Rapti and Babai river will be the existing danger level. Based on the return period analysis of stage and flow data of these three rivers for respective gauging stations (see annex 2),

	the proposed trigger thresholds come out to be more than 5-year return period events for all three rivers. GLOFAS forecasts for Karnali River at Chisapani Station were evaluated and the analysis was done considering lead-time dependent thresholds, and the results were not promising. With the flood threshold of 2 year -return period and probability threshold of 50 per cent, the False Alarm Ratio (FAR) came out pretty high (more than 90 per cent) at all the lead times, however, the probability of detection (POD) was reasonably good. Therefore, GLOFAS forecasts will be used for the readiness only. Concerning the DHM flood forecast bulletin, no such separate forecast evaluation was done. However, the FbF feasibility study undertaken by the Climate Centre in 2019 had indicated reasonable accuracy of DHM flood forecasts at 1-2 days lead time for major rivers. In the recent few flood events, DHM flood forecasts bulletin was also able to predict the water level trend reaching warning and danger level in these rivers, with reasonable accuracy at 48 hours lead time, with increased certainty within 24h lead time. A detail forecast evaluation of DHM forecasts and other regional & global forecasts shall be undertaken during the full EAP development process. NRCS will be closely coordinating with the DHM for the flood forecasts, bulletins, and warning advisories. Apart from the regular flood forecast information available in the public domain, a separate line of communication shall be established between NRCS, DHM and NDRRMA to exchange specific flood forecasts of Karnali, Babai and West Rapti for the monitoring and confirmation of the trigger. Also, NRCS will be coordinating with ICIMOD for their regional flood outlook (72 hours) for Karnali and West Rapti Station. Regarding the targeting of households, following the confirmation of the readiness trigger, NRCS will coordinate with NDRRMA (IBF dashboard) and respective local authorities to identify and verify the households that are anticipated to have a very high impact from the forecasted flood event.
Next steps – For National Societies that intend to develop a full EAP (Optional)	NRCS is already working on the full flood EAP covering more river basins and flood-prone districts of Nepal, making it a nationwide coverage for the riverine flood disaster. Previous learnings from the project on FbA-SRSP and the ongoing STRONG project supported by ECHO through the Danish Red Cross and Finnish Red Cross will inform the development of full EAP with more detailed assessment and evaluation of local and global flood forecasts for Nepal.

PLANNED INTERVENTION

	**Shelter, Housing and Settlements**	**Budget**	**CHF 97,192**	
		No. people targeted	= 5,740 (7 persons per HH x 820)	
Indicator:	• 1,960 people and their livestocks are evacuated in safe locations in case of Karnali flooding.		**Target:**	280 HHs (Karnali) 320 HHs (Babai) 220 HHs (West Rapti)

	• 2,240 and their livestocks are evacuated in safe locations in case of Babai flooding. • 1,540 people and their livestocks are evacuated in safe locations in case of West Rapti Flooding		

Readiness activities:	1. Identification of volunteers and community groups and orientation on evacuation process and logistics. The vulnerability and exposure data will be validated through community's consultation to identify who are the most vulnerable groups and should be targeted for which particular early action. 2. Mapping and pre-arrangement of early evacuation center and safe sites in the targeted municipalities. 3. Regular coordination and collaboration at local level 4. Simulation of early evacuation process in targeted municipalities. 5. Mapping of local vendors/partners and pre-agreement in the targeted districts (Karnali, Babai, West Rapti river basin) 6. Develop volunteer mobilization protocol for early evacuation and other early actions 7. Pre-arrangement of transportation services
Prepositioning activities:	1. Prepositioning of shelter tool kits in the targeted districts and municipalities 2. Prepositioning of shelter relief items in the targeted districts and municipalities 3. Prepositioning of waterproof storage bags in targeted districts and municipalities
Prioritized Early Actions:	1. Management of existing evacuation sites and construction of temporary shelters and livestocks sheds 2. Distribution of waterproof bags to store important documents by mobilizing volunteers mentioned in Activity 3 3. Volunteer mobilization for Early Evacuation of the vulnerable population (persons with disabilities, senior citizens, pregnant and lactating mothers, children) and their livestock from the most exposed areas of Karnali, Babai and West Rapti flood plains. The exposed areas and population that need to be evacuated will be identified through community/municipality consultation informed by the risk/impact scoring of IBF dashboard (with relevant vulnerability/exposure criteria) of at-risk households.

	**Water, Sanitation and Hygiene**	**Budget**	**CHF 29,948**	
		No. people targeted	10,500 (7 persons per HH x 1,500)	
Indicator:	• 420 households would have improved access to drinking water in case of Karnali flooding. • 640 households would have improved access to drinking water in case of Babai flooding.		**Target:**	420 HHs (Karnali) 640 HHs (Babai) 440 HHs (West Rapti)

	• 440 households would have improved access to drinking water in case of West Rapti Flooding		
Readiness activities:	1. Pre-identification of households that have poor access to drinking water. 2. Orientation to volunteers on the process of Water purification and treatment.		
Pre-positioning activities:	1. Prepositioning of jerry cans in targeted districts and municipalities 2. Preposition of hygiene kit.		
Prioritized Early Actions:	1. Mobilization of volunteers for Distribution of WASH relief items and water testing and treatment. 2. Distribution of hygiene kit and jerry cans to at risk households		

	Protection, Gender and Inclusion	**Budget**	**CHF 19,956**
		No. people targeted	4,500
Indicator:	• 1,260 women and adolescent girls of at-risk households receives dignity kits, SGBV and child protection messages in case of Karnali flooding. • 1,920 women and adolescent girls of at-risk households receives dignity kits, SGBV and child protection messages in case of Karnali flooding. • 1,320 women and adolescent girls of at-risk households receives dignity kits, SGBV and child protection messages in case of Karnali flooding.	**Target:**	1,260 People (Karnali) 1,920 People (Babai) 1,320 People (West Rapti)
Readiness activities:	1. Training and refresher for staff and volunteers on SGBV and Child Protection awareness and messaging 2. Standby Agreement with vendors for dignity kit.		
Prepositioning activities:	**Nil**		
Prioritized Early Actions:	2. Distribution of dignity kits (applying the standby agreement) to the targeted population (women and adolescent girls of reproductive age) of at-risk households of Karnali, Babai and West Rapti flood plains 3. Mobilize volunteers to orient the recipients on the use of the dignity kits and for distribution 4. Disseminate awareness messages on SGBV and child protection		

	Risk Reduction, climate adaptation and Recovery	**Budget**	**CHF 16,031**
		No. people targeted	59,010 (7 people per HHs x 8430)
Indicator:	% or # of target population who receive early warning information on the Anticipated floods. # of teams formed and trained for dissemination of early warning messages	**Target:**	2,760 HHs (Karnali) 3,420 HHs (Babai) 2,250 HHs (West Rapti)
Readiness activities:	1. Development and pre-agreement on early warning messages with relevant authorities with clear triggers for these messages. 2. Meetings with municipalities, ward offices and communities for formation of early warning teams/task force in each vulnerable village in targeted areas. 3. Develop early warning communication channel/mechanism for each target municipalities with provision of feedback mechanism to collect feedback, complaints and suggestions based on the community preferred and accessible communication medium. 4. Print and publicize the agreed early warning communication channel. 5. Capacity building of early warning teams/task forces of communities. 6. Agreement with cellular companies or relevant preparation for mass SMS systems. 7. Coordination with key local and national stakeholders on clear role and responsibilities for early warning dissemination. 8. Drills/Simulation Exercises on Early Warning Messaging at communities 9. Disseminate Awareness messages through jingles and IEC, hand mike and other mediums in targeted municipalities.		
Prepositioning activities:	1. Procurement of hand mikes for dissemination of early warning messages.		
Prioritized Early Actions:	Disseminate early warning messages in at-risk areas of Karnali, Babai and West Rapti river flood plains, through announcement via multi-hazard sirens, hand-mikes, short mobile messages services (SMS) and home visits.		

ENABLING APPROACHES

	Secretariat services	**Budget**	**CHF 6,470**
		No. People targeted	N/A
Indicator:	Funds for the early action intervention are transferred to NRCS to enable the completion of the actions within the lead time.	**Target:**	Yes

Readiness activities:	1. Support with the annual readiness activities and reporting. 2. Strengthen IFRC-wide coordination to bring technical and operational complementarity and enhancing cooperation with external stakeholders. 3. Ensure synergy between this operation and Danish Red Cross supported activities in the same area (in particular for monsoon 2024).
Prepositioning activities:	**Nil**
Prioritized Early Actions:	1. Process the funds for the early actions. 2. Support NRCS with the implementation of all the early actions in the activated river basins.

	National Society Strengthening	**Budget**	**CHF 29,021**	
		People targeted	NA	
Indicator:	# of NRCS volunteers and staff are activated and mobilized immediately (within 6 hrs.) after the confirmation of trigger		**Target:**	TBC
Readiness activities:	1. Orientation to staff and volunteers on SEAP and its implementation 2. Refresher orientation for staff and volunteers on EAP and its implementation 3. Recruitment of NRCS FbF/AA focal person- Programme Officer (50%) 4. Recruitment of NRCS Finance Officer (12.5%) 5. BIPAD – IBF system functioning and new risk data integration and dynamic update for effective household targeting for anticipatory support.			
Prepositioning activities:	**Nil**			
Prioritized Early Actions:	1. Emergency coordination meeting with staff and volunteers on trigger activation. 2. Emergency meeting with local stakeholders in targeted municipalities upon confirmation of trigger 3. Activation of EoC and 24/7 risk monitoring and coordination with DHM and NDRRMA 4. Volunteer mobilization for EA activities in targeted municipalities of Karnali, Babai and West Rapti flood plains 5. Lesson Learnt Workshop			

	Community Engagement and Accountability	**Budget**	**CHF 1,346**	
		People targeted	42,150	
Indicator:	42,150 people reached with early warning and awareness messages		**Target:**	42,150

Readiness activities:	1. Develop and Establish a feedback mechanism to collect feedback, complaints and suggestions based on the community preferred and accessible communication channel.
Prepositioning activities:	**Nil**
Prioritized Early Actions:	1. Deployment of volunteers to mainstream CEA in all early action activities. 2. Establish a help desk at evacuation sites.

CONDITIONS TO DELIVER THE EARLY ACTION

Experience and/or capacity to implement the early actions.	The Government of Nepal recognizes the NRCS as an auxiliary agency in humanitarian services. As one of the largest humanitarian organizations in Nepal, NRCS boasts an extensive nationwide network comprising 7 provincial committees, 77 district chapters, and 1,564 sub-chapters. NRCS emphasizes robust coordination practices and collaborations, particularly with local governments for humanitarian services. The NRCS 8th development plan, the National Society Development Plan, different policies, strategies, guidelines, and procedures are the foundations to increase efficiency and effectiveness throughout its services. Additionally, NRCS has warehouses strategically located in each of the seven provinces to facilitate immediate response efforts. The pool of trained human resources is adding value to the services that the organization has been conferring. The organization ensures inclusive service delivery and serving the needs of vulnerable, marginalized, and excluded communities living in fragile settings. NRCS is committed to upholding a zero-tolerance policy towards all forms of exploitation, abuse, and harassment and to institutionalize and mainstream Protection Gender, Inclusion (PGI)/Community Engagement, and Accountability (CEA) in all NRCS programme and services. Moreover, NRCS has a wider experience of responding to various emergencies and major humanitarian crises in Nepal, including the 2015 earthquake, the 2017 flood, and the 2020 and 2021 COVID-19 pandemics, building expertise in the areas of emergency shelter, health, WASH and PGI/CEA. NRCS continued its effort to make communities resilient to disasters and crises in the face of climate change by emergency response and anticipatory actions. The organization has also accumulated valuable experience in Forecast-Based Action (FbA) and Shock-Responsive Social Protection (SRSP), particularly in addressing floods and cold waves in 2020 and proactively acting in anticipation against the Karnali 2021 flood, along the Karnali and Babai river basins, in Kailali and Bardiya districts. NRCS in collaboration with the Municipalities endorsed and implemented the Early Action Framework (EAF) in Karnali and babai river basin. Various simulation exercises on Anticipatory action were conducted to test the framework and hence refined accordingly. In anticipation of monsoon 2024, NRCS has been granted a fund of 200,000 Euro for Multi-Purpose Cash transfer as an early action in Tikapur and Kailali of Karnali River Basin. The early actions in the SEAP will be a complimentary support to this MPC support provided by the European Union Civil Protection and Humanitarian Aid Operation through IFRC/Danish Red Cross country team. NRCS has already established emergency funds for disaster response and national

	HQs will ensure that required funds will be released once readiness stage is met which will be reimbursed through DREF once it is transferred from IFRC.
Red Cross Red Crescent Movement partners, Governmental / other agencies consulted/involved on this simplified EAP	NRCS with the support from IFRC, Danish Red Cross, Finnish Red Cross, RCRC Climate Centre jointly developed this simplified early action protocol. During the drafting of this protocol, NRCS had several consultations with the National Disaster Risk Reduction and Management (NDRRMA) and Department of Hydrology and Meteorology (DHM). Likewise, local governments and district governmental authorities were also engaged in the prioritization of impacts and identification of feasible early actions. All these stakeholders will be involved in the implementation of this simplified EAP. NRCS have been actively contributing to the annual monsoon preparedness and response planning processes, both at the federal and local level. In fact, NRCS (through its ongoing Danish Red Cross-led ECHO programme on Anticipatory Action) has supported the development of standard operating procedures (SOPs) for forecast-based action and response at district and local level. At federal level, NRCS and NDRRMA have already been working on the integration of anticipatory action within the national monsoon preparedness planning processes. Additionally, Red Cross Partners are supporting NDRRMA in the development of a legal framework on anticipatory action that can mainstream all the AA-related pilots and initiatives within the broader disaster management efforts of the country. In addition, there is also a similar ongoing anticipatory action initiative from the World Food Programme (WFP) and Save the Children Nepal in the target river basins, and NRCS (district and local chapters) have been supporting them in the implementation. The activation trigger proposed for this SEAP aligns well with the flood trigger being used by these agencies for their anticipatory action programmes, as they have also been using the DHM flood forecast bulletins for their activation. NRCS (through its district and local chapters) will jointly coordinate with these agencies for coordinated actions, avoiding any duplication of efforts and beneficiaries, and support in the wider scale of anticipatory action support in these flood-prone areas. NRCS will also coordinate with the upcoming larger AA initiative from UN CERF (the AA framework still under development) and push for the necessary harmonization of trigger and action to the extent possible across the target river basins.

BUDGET

Early Action Protocol Summary

EAPcode - Nepal Red Cross Society
Flood

Operating Budget	Readiness	Pre-Pos Stock	Early Action	TOTAL
Planned Operations	**39,984**	**58,229**	**66,260**	**164,473**
Shelter and Basic Household Items	16,534	32,637	48,021	**97,192**
Livelihoods	0	0	0	**0**
Multi-purpose Cash	0	0	0	**0**
Health	0	0	0	**0**
Water, Sanitation & Hygiene	3,666	25,161	1,121	**29,948**
Protection, Gender and Inclusion	5,392	0	14,564	**19,956**
Education	0	0	0	**0**
Migration	0	0	0	**0**
Risk Red., Climate Adapt. and Recovery	13,874	431	1,725	**16,031**
Community Engagement and Accountabilit	518	0	828	**1,346**
Environmental Sustainability	0	0	0	**0**
Enabling Approaches	**31,501**	**0**	**3,990**	**35,491**
Coordination and Partnerships	0	0	0	**0**
Secretariat Services	6,470	0	0	**6,470**
National Society Strengthening	25,031	0	3,990	**29,021**
TOTAL BUDGET	**71,485**	**58,229**	**70,250**	**199,964**

all amounts in Swiss Francs (CHF)

Contact information

For further information, specifically related to this simplified EAP please contact:

At the Nepal Red Cross Society

- Sagar Shrestha, Director of DM Department, Nepal Red Cross Society, sagar.shrestha@nrcs.org, 9803202129
- Umesh Prasad Dhakal, Executive Director, Nepal Red Cross Society, umesh@nrcs.org, 9851056369

At the IFRC Nepal Country Delegation

- Herve GAZEAU, Programme Coordinator, IFRC Country Delegation Nepal, herve.gazeau@ifrc.org, 9851221996
- Prajwal Acharya, DRM Programme Manager IFRC Country Delegation Nepal, Prajwal.acharya@ifrc.org, 9851215946

At the IFRC Asia Pacific Regional Office, Kuala Lumpur

- Raymond Etienne ZINGG; Regional Coordinator, Anticipatory Action; email: raymond.zingg@ifrc.org

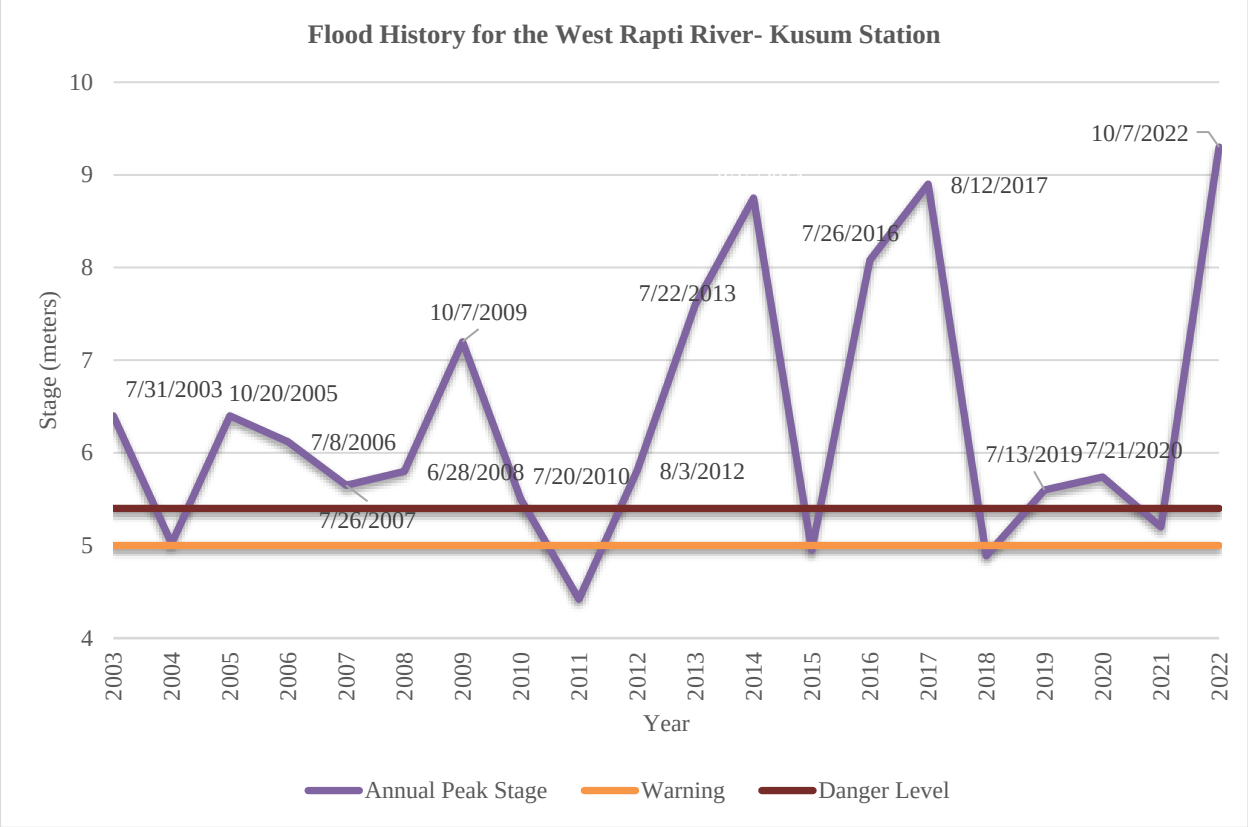
At IFRC Geneva

- Malika Noisette, DREF Senior Officer AA, malika.noisette@ifrc.org

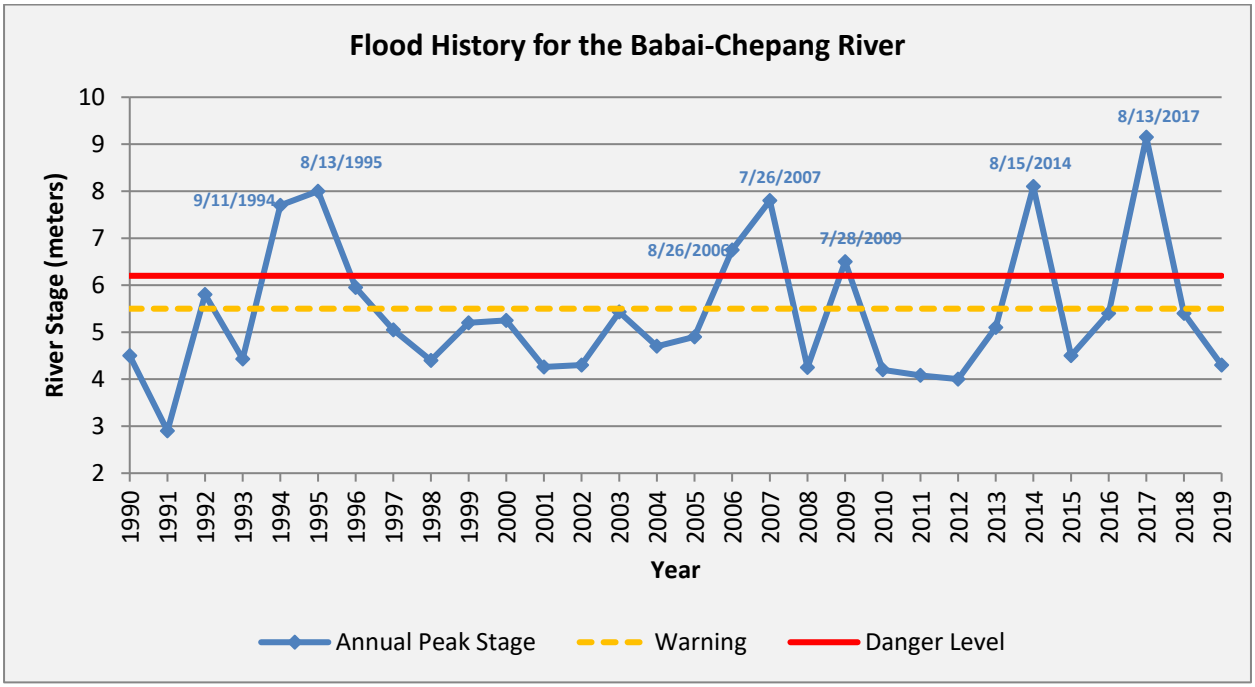
Annexes

Annex 1: Flood History in Karnali, Babai and West Rapti River

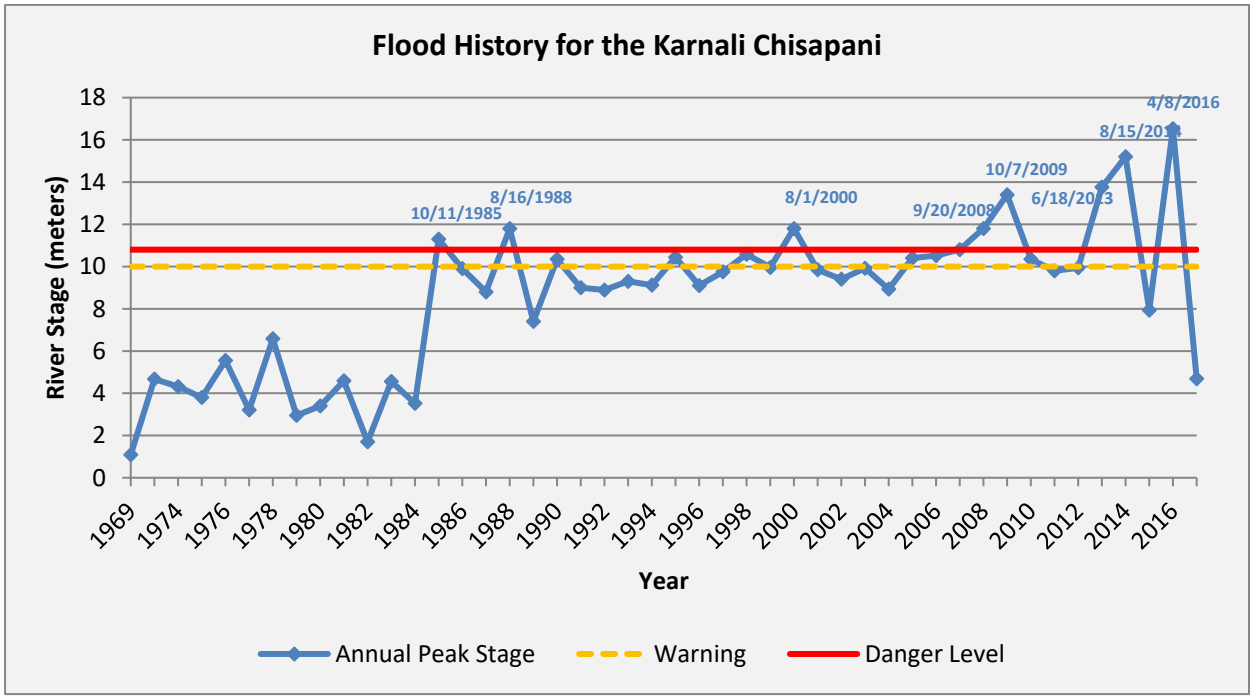
(a) Flood History of West Rapti River at Kusum Station



(b) Flood History of Babai River at Chepang Station

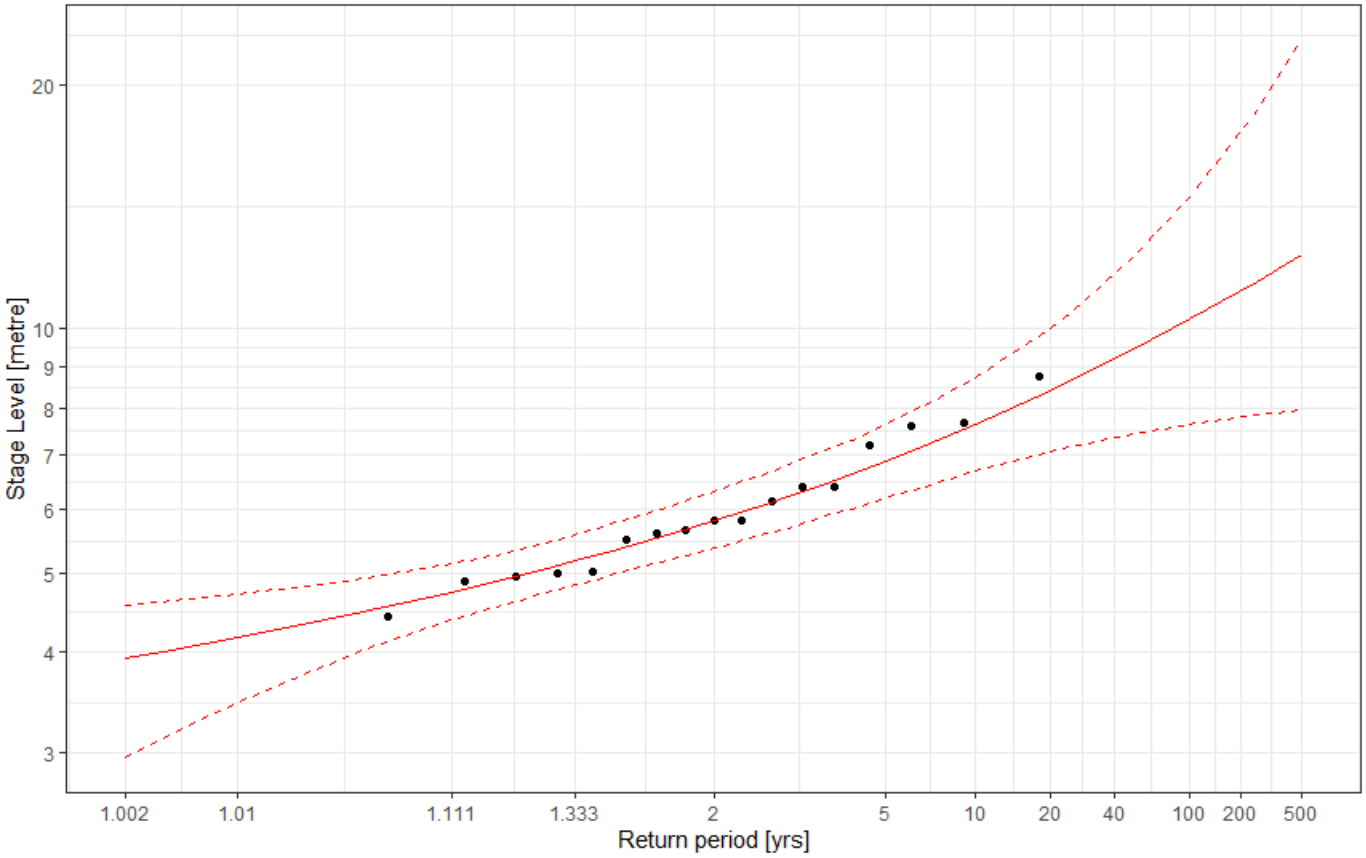


(c) Flood History of Karnali River at Chisapani Station

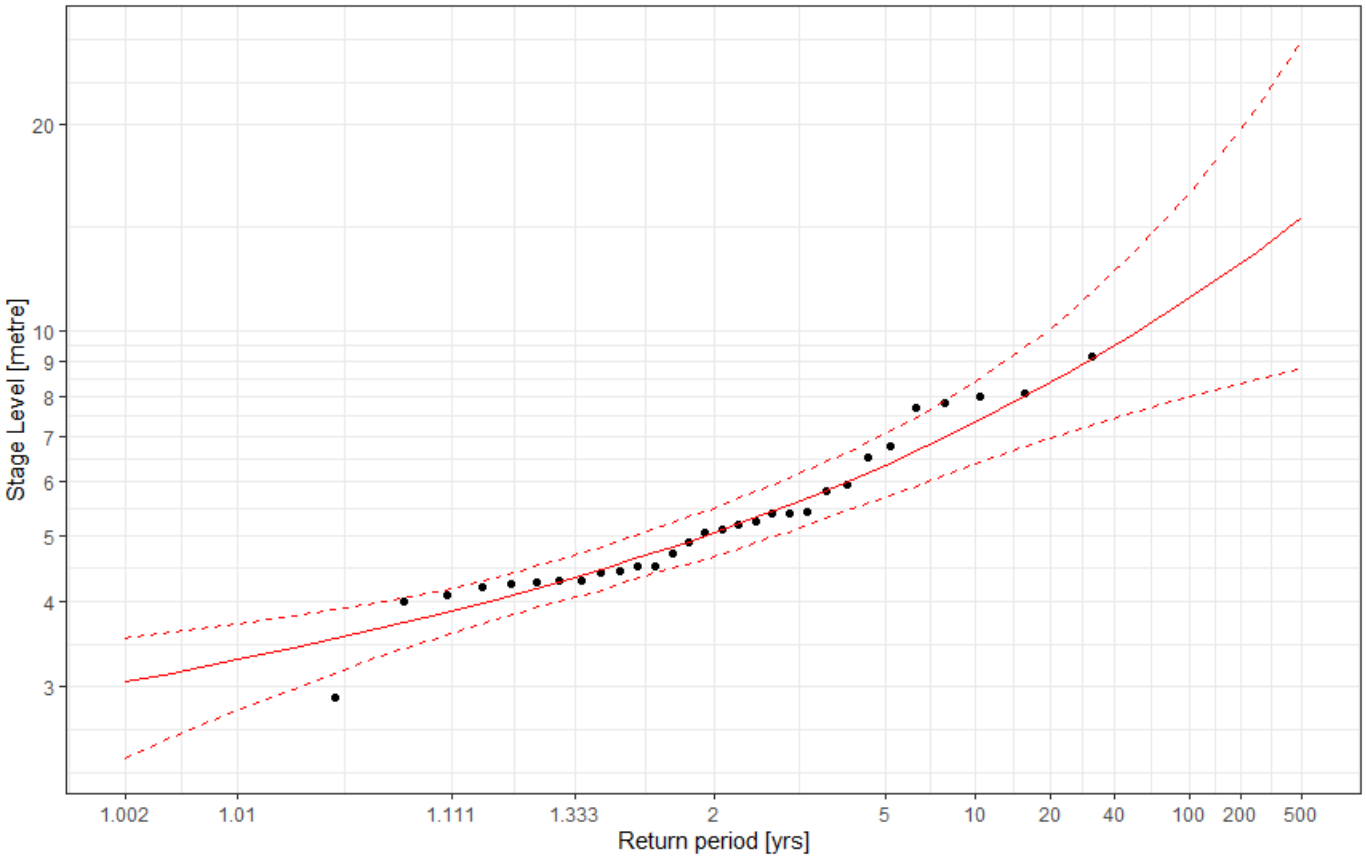


Annex 2: Return Period Analysis of Karnali, Babai and West Rapti River

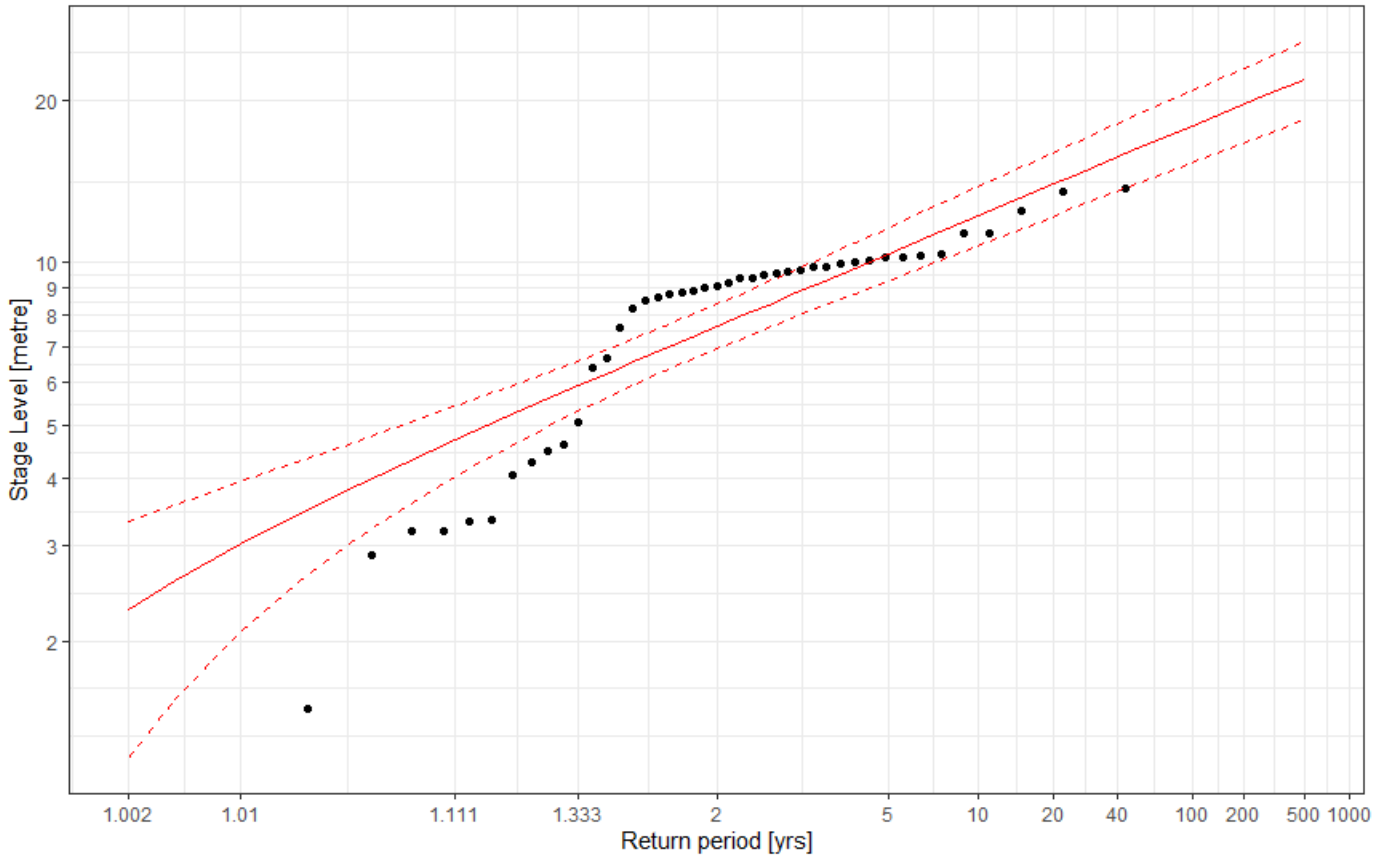
(a) West Rapti (Kusum Station) - Based on Stage Data from 2003 - 2019.

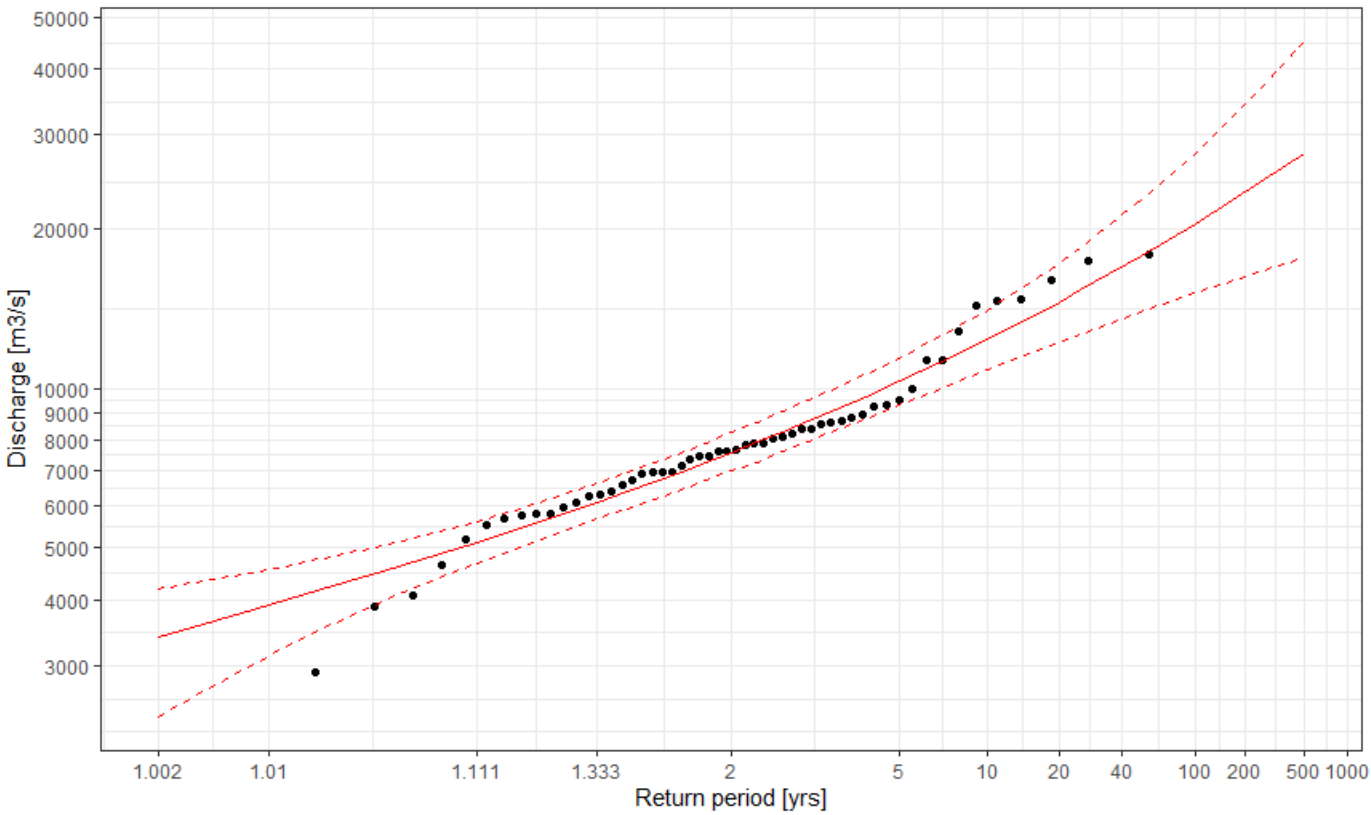


(b) Babai Chepang - based on stage data 1990-2019



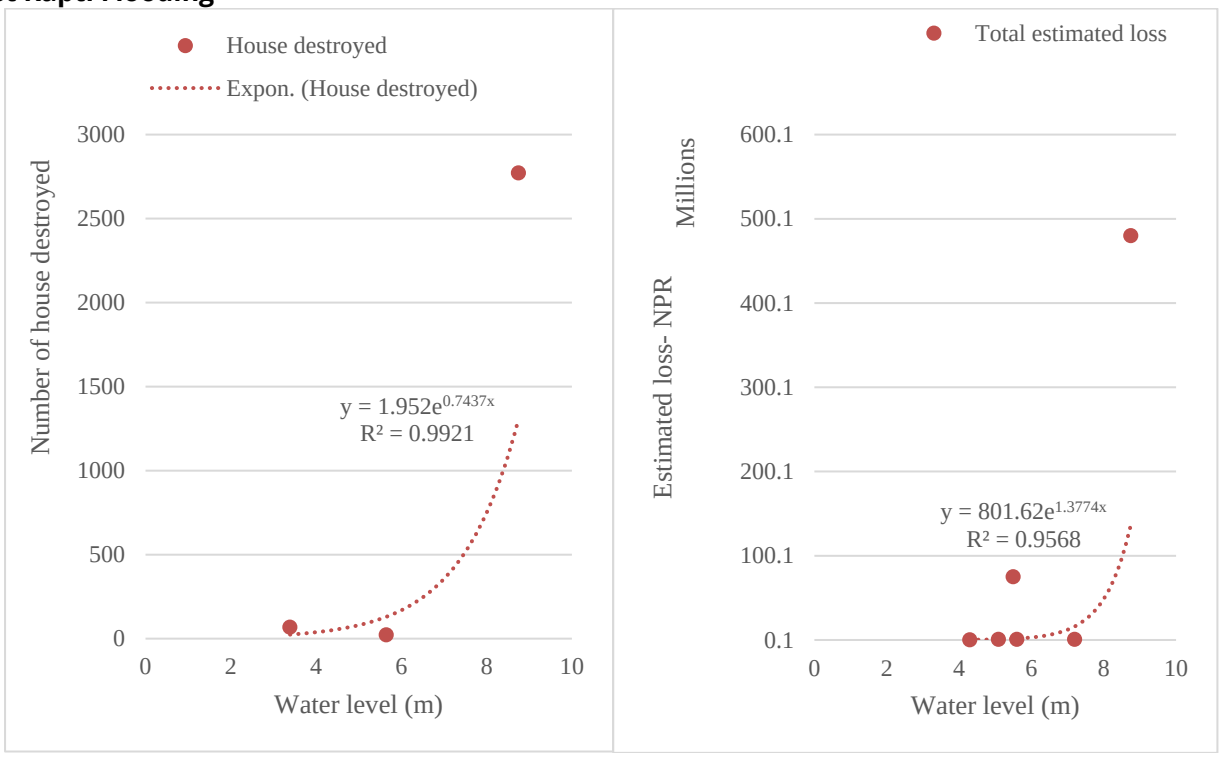
(c) Karnali Chisapani - based on stage data 1973-2015 & discharge data 1962 - 2015.





Annex 3: Impact Curves (Correlation of Flood Level and Humanitarian Impact)

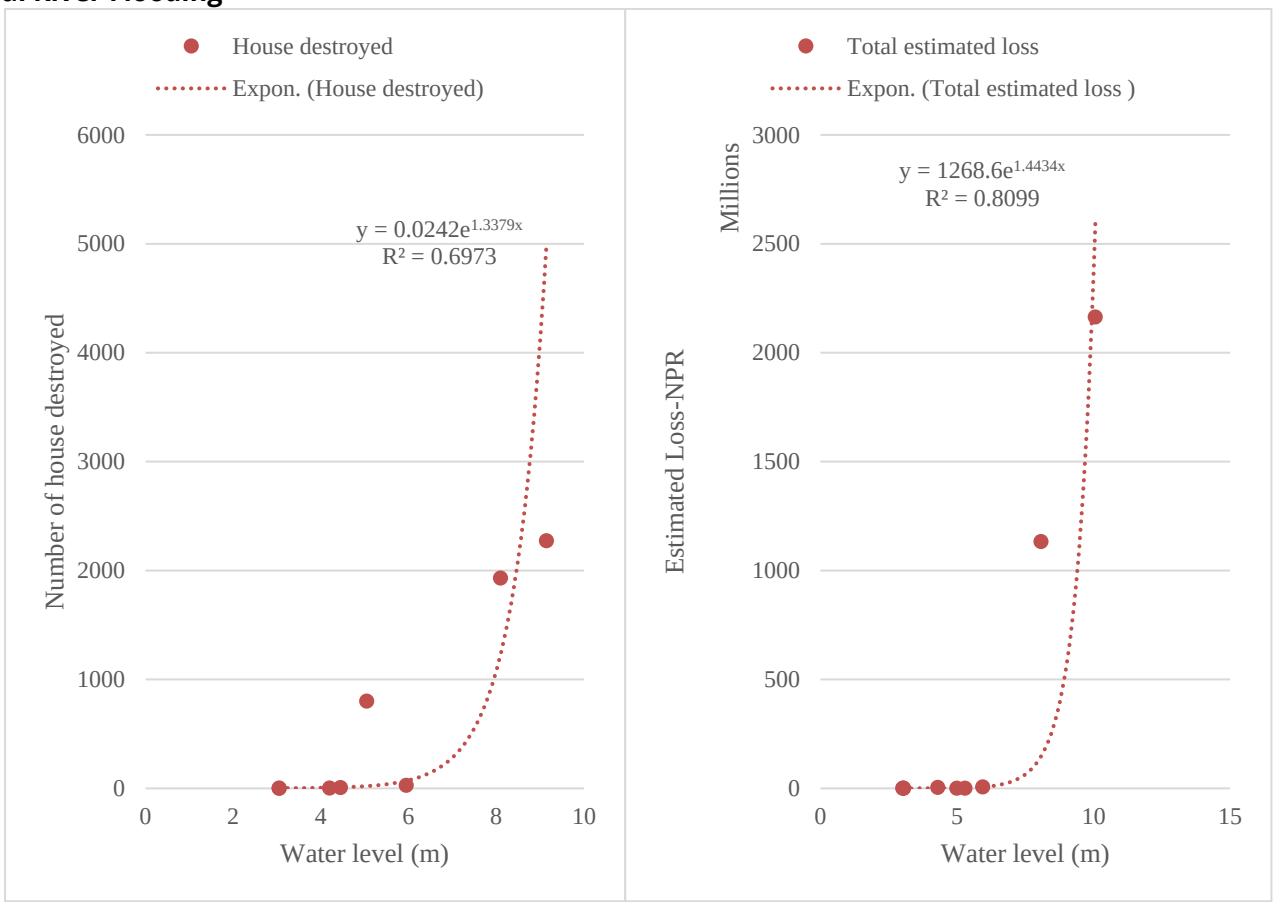
(a) West Rapti Flooding



-

Data Source - Department of Hydrology and Meteorology (DHM) and Bipad Portal

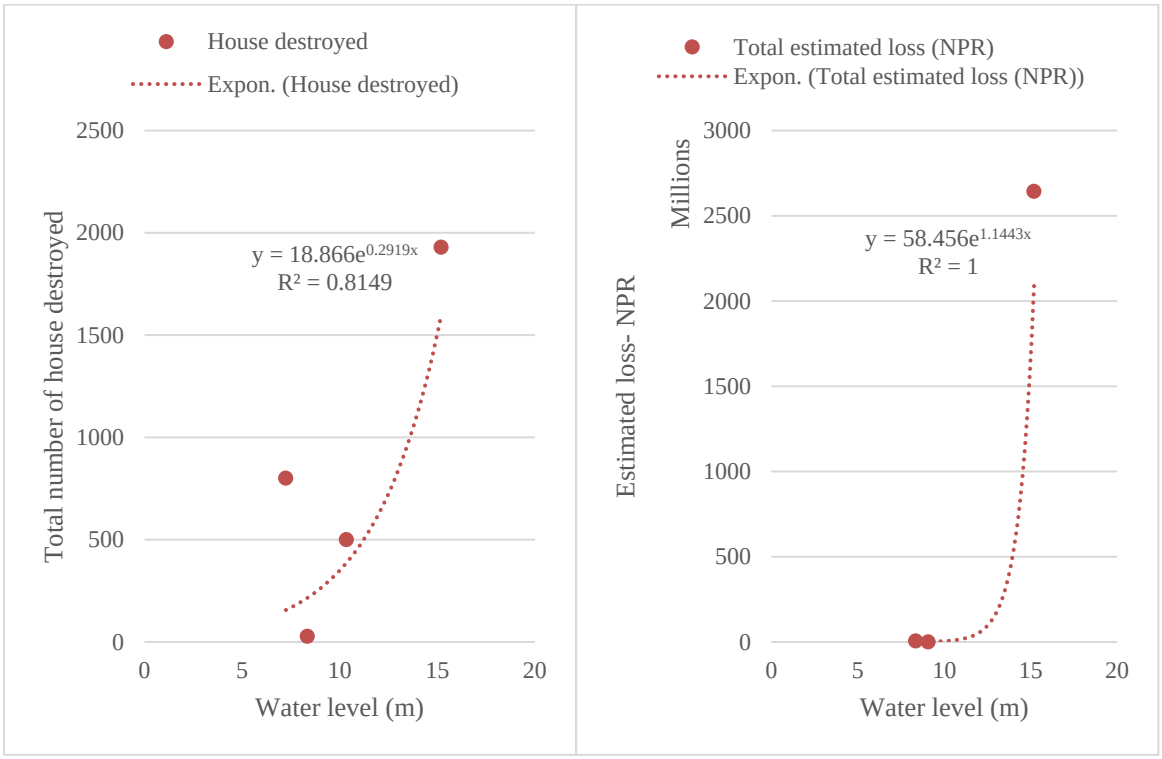
(b) Babai River Flooding



-

Data Source - Department of Hydrology and Meteorology (DHM) and Bipad Portal

(c) Karnali River Flooding



Data Source - Department of Hydrology and Meteorology (DHM) and Bipad Portal

Annex 4: Risk Indicators used in Flood IBF Dashboard and Criteria for Beneficiary Targeting

(a) Flood Hazard Exposure Indicators

Criteria	Class/Components	Weightage	Score
Vicinity to rivers	< 100m	20%	1
	100–500-meters		0.5
	More than 500m		0
Loss of family members in past flood events	Yes	30 %	1 (All three have occurred) 0.5 (Any of the three have occurred) 0 (None of the any impacts reported in past)
	No		
House damage in past flood events	Yes		
	No		
Livelihood affected in past flood events	Yes		
	No		
Flood Inundation Map (Meteor – 5 Year Return Period Event)	<1 m	50%	0
	1-2 m		0.5
	>2 m		1

(b) Vulnerability Indicators

Indicators	Sub-Indicators	Class/Components	Weightage	Score
Social	Number of Dependent Population (Children, Elderly, Disabled, Pregnant/Lactating)	0	15%	0
		1 to 2		0.5
		More than 2		1
	Female-headed household	Yes	5%	1
		No		0
Economic	Income Source	Multiple occupations	10%	0
		Single occupation		1
	Annual Income	More than 100,000	15%	0
		40,000-100,000		0.5

		Less than 40,000		1
Physical	House Type	Wall made up of local stones and rural structure (mud, bamboo, brick, etc.) and lightweight roof made up of grass/hay, mud, wood, plastic, etc.	30%	1
		Wall made up of bricks, block, prefab, metal, tin, etc. And a lightweight roof made up of grass/hay, mud, wood, plastic, etc./ Wall made up of local stones, rural structure (mud, bamboo, brick, etc.) and roof made up of heavy materials like tiles, slate, tin, etc.		0.5
		Retrofitted, well-constructed walls and wide roofs made up of bricks, stones, and cement.		0
	Flood impact in house/land in the past 30 years (flood frequency)	Less than 2 times	25%	0
		3 to 5 times		0.5
		More than 5 times		1

(c) Coping Capacity Indicators

Indicators	Sub-Indicators	Class/Components	Weightage	Score
Lack of Coping Capacity	Access to Safe Drinking Water during flood times	Yes	10%	0
		No		1
	Early warning information access	Yes	30%	0
		No		1
	Involvement of family member in community group	Yes	10%	0
		No		1
	Access to financial services	Yes	10%	0
		No		1
	Education level	Illiterate	10%	1
		Literate		0.5
		Formal education		0
	Availability of Social Security	Yes	10%	0
		No		1
	Distance to safe shelter	No access	20%	1
		Less than 30 minutes		0
		More than 30 minutes		0.5

Annex 5: BIPAD – Flood IBF Dashboard (Household Level Risk Visualisation for Karnali and Babai Flood Plains)