

FbF guide #3

Prioritization of Forecast-based Actions

This document presents reflections and lessons from the experience of several ongoing Forecast-based Financing pilot projects. It provides a 6 step process to select forecast-based actions that will be automatically funded and triggered based on forecast information. It is an illustrative reference document for Forecast-based Financing interventions. Red Cross and Red Crescent national societies and other humanitarian and development organizations engaged in Forecast-based Financing are encouraged to use this selection process in a flexible way for an effective outcome of their interventions, follow the process in the most flexible and iterative way according to the respective context.

Forecast-based Financing (FbF) is a mechanism that uses climate and weather forecasts to enable timely disbursement of funds to implement advanced preparedness actions before a potential disaster happens and early response intervention. Many times, early actions are not taken due to lack of available funds in the exact moment when they are needed or because of a lack of quality forecast information, absence of systems and procedures to use these funds effectively and also due to the short window of time for early action. The disbursement of funds for emergency assistance can then only provide relief after the fact, meaning only after the disaster strikes. Forecast-based Financing enables the implementation of these early actions, prior to a disaster, based on a sound understanding of risks, hazards, vulnerabilities, exposure, impacts, danger levels, forecast capability, predetermined triggers and precise community-level actions that can be implemented within the lead time.

Forecast-based Financing aims to build on existing early warning early action strategies and preparedness plans to minimize disaster risks and reduce the impact of disasters in communities ([see Early Warning Early Action - Mechanisms for Rapid Decision Making](#)). Institutionally, it will improve operational preparedness and response capacity to act early to reduce the impacts of disasters. Early response should be considered to deal with the residual risks (as risk 0 does not exist). Timely and qualitative response will ensure that further suffering is avoided.

Target Audience for this guide:

Prioritization of forecast-based actions requires engagement of actors at all levels, from residents, community committees, DRR field committees, civil society organizations, government (local and national) departments, Red Cross and Red Crescent national societies, United Nations agencies and other humanitarian and development organizations, research institutions including climate science community and private sector and other relevant actors. This guide could be used a broad range of actors.

Why is it important to develop a logical process to select forecast-based actions? Reflections and lessons from the field

- To identify the extent to which Forecast-based Financing is addressing the gaps of contingency planning effective implementation and translating early warning into early actions, as well as the gaps between humanitarian and development funding.
- To ensure that forecast-based actions build on existing governmental and non-governmental preparedness plans (to avoid duplication of effort, to add value, to complement locally-appropriate strategies, to fill gaps in current provision).
- To identify appropriate actions most effective for preparedness at community, governmental and organizational level, based on the available forecast lead time, funding and implementation capacity and importantly the social acceptability of the action.
- To select and prioritize preparedness actions based on local context, practicality, scale, value for money, mitigation of impact and preparation/implementation time.
- To match actions for specific danger levels, of magnitude and uncertainty, that will be triggered by a forecast.
- To ensure that local actors “front liners” that are well integrated in communities, that understand local contexts and that are more adapted to localized actions are well considered in the Forecast-based Financing mechanism in complementarity with national and international institutions/organizations.
- To empower communities and individuals
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What kind of Forecast-based actions can be prioritized?

EARLY ACTIONS

‘Early actions’ are actions taken before an anticipated crisis has occurred with the aim of preventing the disaster or mitigating its impact. These actions are taken once a deterioration is forecast, and the situation has tipped out of ‘normal,’ but before the situation could be described as a humanitarian crisis.

Early action is at the acute end of DRR – it is a last chance to reduce risk and build resilience, with the considerable advantage of having clarity on the specific risk faced by particular communities, thereby allowing for clear and focused interventions.

PREPAREDNESS FOR RESPONSE

Preparedness, which involves very detailed planning to get ready to respond, including preparation of evacuation sites, readiness of logistic teams, prepositioning of stock, registering people for cash transfers, set up coordination mechanisms etc.

See [Annex 1](#) for examples of Forecast-based actions

Step by step process to select forecast-based actions

These 6 recommended steps start with a sound understanding of climate related risk factors (link to [Menu of Triggers guide](#), step 1), followed by in-depth review and analysis of the current preparedness landscape in the respective context. At this point, it will be possible to initiate a brainstorming process of possible actions, that will be further analysed using theory of change and cost benefit analysis tools taking into account other socio-cultural perspectives that can not be analysed from a monetary point of view. Once key elements such as value for money, implications of acting in vain and time of preparation and implementation are clearly identified, early actions will be matched with the different forecast choices that will trigger the activation of the Forecast-based Financing mechanism. These choices will be described in a menu of triggers document that is designed by technical experts, incl. meteorologist, hydrologist and risk management experts (see Menu of Triggers guide). The nature of Forecast-based Financing implies that this process is subject to continuous learning, offering opportunities to re-think actions as time pass and new conditions are created, iteration and flexibility is required to create the most appropriated solutions. The process should be reviewed according to the emerging circumstances that might change the initial reasoning for selecting actions in the first place.

1. Identify climate related risks

To implement effective Forecast-based Financing interventions, it is essential to identify the major disaster risks in relation to climate hazards in a particular geographic area (region, river basin, coastal area, village, etc.). Selection of areas of intervention depends on the given circumstances of implementation of the government or organization, in some cases it could be at national, regional, community level or even cross boundary, at international level. Disaster risk assessment seeks to understand and quantify risks associated with the impacts of hazards before a disaster event to determine the likely deaths, damages, and losses (direct and indirect) that will result, and to highlight which actions will be most effective in reducing the impacts on individuals, communities, and governments. This ability to model disaster loss and to provide robust analysis on the costs and benefits of risk preparedness, reduction, and avoidance has made disaster risk assessments a powerful tool in disaster risk management (DRM) [GFDRR 2014, understanding risk] and an integral component of an effective multi-hazard early warning system. Understanding risks – and risk drivers- is critical to identify Forecast-based Financing target areas and possible forecast-based actions. There are existing risk identification tools developed by the Red Cross Red Crescent Movement, Governments and other organizations, such as the [Vulnerability and Capacity Assessment](#), and other participatory risk assessment tools. Other existing global tools such [INFORM](#) Index and [Inasafe](#) could be use at country or regional level. Attention should be paid to hazard, exposure, vulnerability and lack of coping capacity mapping, underlying root causes of risks at community and household level in the landscape of the area and effects on

broader systems. Existing data should be collected and analysed for this is to be layered, consolidated and aggregated (see Table 1). Multi-disciplinary actors should be involved in this step: experts in disaster risk management, climate change adaptation, geographical information systems, meteorologist, hydrologist, sociologist etc. If possible, the risk assessment process should be conducted during a feasibility study for Forecast-based Financing interventions, if not possible it is pivotal that this is the first step of the process as it will also provide valuable information for the design of Menu of Triggers.

Propose table to analyse risk: Inspired by [INFORM](#). See detailed information [results and data report](#)

	Hazard & Exposure					Vulnerability					Lack of Coping Capacity				
Ranking Level	Hydro-meteorological					Socio Economical			Vulnerable Groups		Institutional			Infrastructure	
Components Level	Floods	Droughts	Heat Waves	Cold Waves	Tropical Storms	Development & Deprivation	Inequality	Aid Dependence	Uprooted people	Other vulnerable groups	DRR	Governance	Communication	Physical Infrastructure	Access to Health Systems

Once this data is gathered and analyse, it will be possible to identify the hazards that will be tackled, areas of intervention, target population,

In a separate table, the risk that have been prioritized should be described. Prioritized risks are the base for the selection of Forecast-base actions.

Hazards	Prioritised Risks per sector					
	WASH	Livelihood	Shelter	Health	Protection	Infrastructure
Floods	e.g. destruction of latrines in 60% of households	e.g. increase mortality of cows	e.g damage of foundations and walls in approx. 40% of households	e.g. Increased percentage of cholera cases by 40% after floods	e.g 30% increase of rapes rates after floods in IDP camps	e.g. 30% of bridges would collapse if water discharge is higher than XX.
	e.g. lack of access to potable water for approx. 1 month after the floods	e.g 40% of population request loans with higher rates of payment	e.g evacuation places do not have capacity to shelter all exposed population	e.g lack of access to first aid services during the first one of the emergency	e.g increase level of domestic violence in the aftermath of floods	e.g electricity services will be suspended for 2 weeks

2. Conduct research and review of documentation

Forecast-based Financing should build on already existing strategies, covering the gaps identified in those systems. The secondary data review should include an in depth analysis of already existing disaster risk reduction and climate change adaptation related policies, strategies and practical plans and set ups, such as national and local level contingency

plans, Red Cross Red Crescent National Society contingency plans¹, Inter Agency Standing Committee (IASC), United Nations and Non-Governmental Organizations’ contingency plans and reports, sectorial contingency plans (at all levels), private sector plans and report from Disaster Relief Emergency Fund (DREF) and United Nations Central Emergency Response Fund (CERF). This step includes a desk review and key informant interviews to identify where there might be pre-existing work to build on.

The development of a repository of [actions](#) that have been successfully used for the same risk in similar context should be considered. This would help organizations/governments to identify and adapt existing good practices to their context.

Once all the information is collected, a SWOT analysis (of strengths, weakness, opportunities, and threats) should be done in order to identify effectiveness, impact, gaps of implementation and possibilities of improvement of actions that already exist. This information will add value to step 3, which focuses on dialogue with different actors in order to identify actions that could be triggered by climate forecast.

3. Brainstorm possible actions

In this step, a first set of actions are brainstormed through consultations at different levels and sectors. Facilitators should be familiar with forecast skills, lead times and limitations for the respective context (see [Menu of Triggers](#)). Visual aids to help others understand model structures, uncertainties, resolutions and possible lead times should be presented and discussed where possible. Methods can include interviews, focus group discussions and other research tools; discuss the information gathered in the previous steps to identify what actions might be appropriate to take based on a forecast. This should include envisaging new actions that might not be included in already existing plans, but would be valuable to take based on a forecast. Discussions should include consideration of how much lead-time is needed for an action (in a posterior step actions will be matched with lead time of the available forecast) and at which level it should be implemented (Community, municipal, regional, national, organizational level, private sector, etc.) Participants should consider possible confounding factors which may render actions ineffective, and discuss mitigation options. Areas requiring further research and review should be noted, as the information needed to discuss feasible novel actions may not have been fully anticipated. For example, WFP uses the Seasonal Livelihood Programming² to take into account both typical and shock years into resilience building activities.

Table 1 - Brainstorm possible actions (lead time and level of implementation)

Forecast-based action	Describe action	Minimum Lead time for implementation	Level of implementation
Early Actions (mitigation/prevention)			

¹ IFRC Contingency planning guide

² <http://documents.wfp.org/stellent/groups/public/documents/communications/wfp261744.pdf>

Preparedness for Response actions			

Who should be consulted?

The Forecast-based Financing implementing team reaches actors at all levels: residents, community committees, civil society organizations, government (local and national) departments, Red Cross Red Crescent national societies, United Nations agencies and other humanitarian and development organizations, research institutions, private sector and other relevant actors. For localized actions, community based organizations will be more helpful for such exercise.

The following criteria should be discussed in the context of each brainstormed action:

- **Consistent with Government and/or other Institutional Contingency Plans:** does the action and its implementation approach and modalities contribute to the implementation of Governmental or Organizations/National Society contingency and preparedness plans? (at national, regional and local level). Consistency with already existing plans ensure that Forecast-based Financing is adding value, but also that is covering gaps of the current disaster preparedness system.
- **Prevention/Mitigation of Impact and preparedness for response** - Is there evidence that this action prevents or reduces disaster risks, eventual loss and damages, or prevent/reduces morbidity/mortality? how this action improves quality/efficiency of response? What evidence exists to support those statements? For what kind of hazards? and in which contexts? Is this action producing new risks? If possible, how to prevent/mitigate them? If not possible, consider not to implement (see [step 5, section h](#)). Actively seek out and discuss evidence running contrary to conventional wisdom. It could be useful to tap into existing evaluation reports of humanitarian and development organizations or Governments, to find out if there are decreased numbers of morbidity and mortality after implementation of actions that are already included in contingency plans. Understanding the reduction of hardship, including food and nutrition insecurity, that a specific action provides, allows to define if it is worth investing in the action.
- **Scale:** How many people are aided by this action? could it be implemented at river basin, district, region level? Consider factors that are related with the specific event (flood, tropical storm, cold wave etc.) Effective early action and preparedness aims to reach and protect as much as possible at risk population. The bigger the population protected, the more effective the system. Therefore, aiming to protect large scale areas, specially focusing on the most vulnerable people living in high risk prone areas, in a cost-effective way will minimize the cost of response. This should Include requirement for spatial analysis, i.e. geographically specific actions for each admin unit based on risk (being a

proxy for hazard, vulnerability and coping capacity). Intensive and extensive risks should be considered to define the scale of the intervention.

- **Practicality:** The actors involved in the selection process draw on the experience of local experts. Has this action proven to be feasible? Was it helpful? Is it subject to corruption or political interest? What might its impact be on broader, neighbouring social and institutional systems? Could it be implemented by the National Society, Non-Governmental Organizations, any local government unit or the community? Is the community ready to utilize the given resources? Is it logistically feasible? The possibility to implement determined actions will depend on the geographical, social, political and economic context. Sometimes, it is not practical to implement certain actions due to the complex geographical conditions, conflict or due to social acceptability.
- **Social acceptability:** when the action is implemented at community level ensure community engagement, the selected actions should be discussed and agreed with targeted communities. Previous experiences in which partners telling communities what they should do have proven to not be conclusive. Appropriate community approaches, according to cultural context, should be adopted in which the set of actions will be adopted moving from “what you should do” to “what can we do together”. Community engagement is, de facto, a factor of success.
- **Value for Money:** As a general estimation, how does the cost of this action compare to the benefit that it will bring (evidenced) and its scale? The estimated total cost of the action should be compared to available funds in the preparedness fund to ensure it is possible to carry out. However, not only keeping focus on the economic benefit for the community, government and/or organization, but also in the non-economic/monetary benefits.
- **Relevance:** which organization has the expertise and capacity to implement the action according to the given context? The action implemented by the respective organization in support to the government should be subject to discussion/peer analysis among key possible implementers in order to determine the most relevant actor.
- **Appropriate financing options:** What is the estimated cost of the action? These will vary according to scale, approach to risk management, funding environment. Is this feasible taken into account available funds at Government and/or organization level?
- **Efficiency** - From this standpoint, social protection / cash transfer mechanisms should be prioritised if at all possible. A forecast-based financing mechanism within existing social protection programs could guarantee an efficient implementation and high impact, as each family could decide which kind of early action or/and preparedness for response can be implemented according to their specific risks and conditions. This is very relevant if scale, lead time, capacity of implementation, practically are challenging aspects. Existing safety nets and pre-identified vulnerable communities could enhance the efficiency of implementation of the FbF mechanisms.

(Box: These guiding questions could be used when interviewing practitioners or experts about a specific action that was implemented in the past as part of a pre-existing contingency plan, this will identify the gaps of implementation that could be managed by Forecast-based Financing. E.g. 1. Has the action been implemented? 2. Was it implemented as expected? 3. If it was not implemented, why not? 4. What were the bottlenecks? 5. Were early actions implemented (before the disaster) timely and effectively?) 6. If yes, what are the reasons of success, if not why it did not work and how it could be improved? 7. Are there funds available for the implementation of early actions? If yes, from whom and how do they work. Etc. if not, which actions should be funded before the disasters? By whom?) 8. Which preparedness actions could be implemented with the given lead time? Brainstorm of new ideas is encouraged.

Step 2 and 3 are essential to understand the existing landscape of early actions and preparedness for response actions from community to national level, it will also facilitate the creation of new ideas that forecast-based financing could enable to improve the current system. At this stage the implementing team has the possibility to produce a report that could be shared with all the actors involved so far in this process and that could benefit from such information.

4. Prioritize actions

In this step each action is analysed within the government or/and organization that is leading the implementation. Selection of actions should be realistic in terms of: capacity of implementation of the respective actor, the different timescales that should be taken into account for a successful implementation and the capacity of the government/organization to support the cost of the intervention. Once this organizational factors are studied and actions prioritized, a list of actions will be examined in detail in step 5 and 6.

- **Time and Duration:** Identify how many days are necessary to be able to implement this action (e.g. procurement, transport, etc.). It is important to separate *preparation time*, meaning to have everything ready before the forecast and the actual *implementation/activation time* once the action is triggered by the forecast. A critical factor is also *timing* of the implementation. Some actions have to rely on a seasonal livelihood (or crop) calendar to make sense. In other cases, it is important to consider the *time a specific action takes to make effect*, for example, ahead of a flood you want to provide vaccines to people. While the implementation time is only a couple of days, the time until the antibodies are build might be much longer. Or ahead of a drought there is time to distribute drought tolerant crop, but it may not be the planting season, so the timing of this particular action is wrongly chosen. The *action lifetime* should be also defined, this mean the time that the impact of this action will last once it is implemented, for example distribution of chlorine tables will last for 30 to 60 days, while distribution of shelter kits to reinforce houses could last up to one year, in this case there won't be need to re-distribute in case of another trigger within that period of time. If possible, include into the analysis maximum time at which an action can be

implemented, after the forecast (even when the hazard is already hitting). This information will be crucial for step 6.

- **Capacity to Implement:** Depending at which level the action is aimed at, there is need for specific capacities to implement. Identify if the organization/government/community is capable to implement this action based on the current situation/context, without need of extra capacity building to implement. Could this intervention be reliably implemented, or are there easily imagined logistical or other issues? Would further capacity improve this? E.g. analyse recourses needed to implement the action vs resources available (human/material/financial), analyse technical expertise needed vs expertise available, determine the scale of implementation, what geographic area/communities could be covered with the existing capacities?
- **Resources:** Estimation of the overall cost of the action. If it is at community level then define cost per household or by cluster of households which is more suitable for urban settings. Determine which financial, material, human, technological resources are needed to implement the action. (including operative cost, taking into account preparation and activation times, this will be used for the elaboration of the Standard Operating Procedures – see guide No 3).
- **Access considerations:** Estimation of the potential access issues which may hinder the provision of assistance. Access could be jeopardised due to complex geographical conditions, but also due to ongoing social tension, conflict or other socio-political factors.

Once this analysis is done it will be possible to filter the actions that could be part of the Forecast-based Financing mechanism. The stakeholder group will assess the most feasible and cost-efficient actions. Please note that in the last step, actions will be matched with the [menu of triggers](#), therefore clear identification of time for preparation and implementation of the action is crucial, this will be analysed in detail in the next step.

5. Elaborate list of high-priority actions

At this point, there should be a short list of priority actions (from step 4) that will be analysed by a group of actors (some of the people already involved in the step 3) in order to define the list of high-priority actions that will be matched with the given trigger choices. The following tables should be filled out to further develop the thinking and rationale behind the actions that have been selected, also to gather enough information to match them with appropriate trigger options..

- a. Develop a Theory of Change. It is a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context. (See [Theory of Change](#)). At the end of this section, stakeholders involved in this process have a sound

understanding of the relevance and pertinence of the analysed actions. The most relevant actions will be analysed following the next tables.

Theory of Change					
Risk	Action	Outputs	Short term outcomes	Long term outcomes	Available capacities to implement this action
Y% of the population in the target areas could be infected by a possible diarrheal outbreak after a flood event.	Distribute chlorine containers at HH level	Z% of population has access to clean and safe water after the flood event	The target area did not have a diarrheal outbreak during the floods	Water borne diseases have been reduced from X% to Z% after floods	-Local suppliers of water treatment tablets -Volunteers network of more than X volunteers per branch

- b. Identify target level of implementation, coverage and sector for the respective action. Although the ultimate goal is to implement preparedness actions at community level, there are some institutional preparedness actions that must be carried out by the organization or the government. Actions at community level should define clearly the coverage, which is related to the scale of the intervention discussed on step 3. Identification of the sector(s) of intervention for each of the actions will ensure that coordination with relevant stakeholders is planned. Once the coverage is determined it will be possible to conduct a depth cost benefit analysis described in the next table.

Target intervention - at	Coverage	Characteristics of Vulnerable target population	Sector
Community level Government level Organizational level	Coverage (all HH in village? Farmers? Vulnerable groups?)	Findings from risk assessment	WASH Shelter Health Food Protection
Community level	Z% (1000 HHs) - informed by risk mapping from step 1	Z% of HHs have limited access to potable water in normal conditions, and during floods it is common practice to drink surface water without any treatment. Previous data shows that region is epidemic prone area	WASH Health/ Epidemic Control

- c. Cost Benefit Analysis: Based on evidence gathered in the previous step, estimate both qualitatively and quantitatively the cost and benefit of each action (See [CBA Guide](#)). This calculation is crucial to determine the feasibility of implementation. One of the ultimate goals of Forecast-based Financing is to ensure that if the action is

implemented in a timely way the costs of response will be significantly reduced. For this estimated costs should be gathered following the CBA guide. When possible a probability trigger could be selected based on CBA.

Cost Benefit Analysis			
Cost in € to the organization per household	Benefit in € per household	Benefit in € for government	Benefit in € for organization
10	100	10000	100000

- d. Identify the time it will take to prepare and implement the action and identify approximately for how long the action will last. Drawing on the experience from disaster managers at all levels, the respective times will be estimated. This information should have been discussed already in [step 3](#). For Forecast-based Financing the relation between implementation time and forecast lead time is crucial. Forecast lead times could vary depending on the hazard, for example forecast of tropical cyclones in Mozambique have a lead time of 5 to 3 days, while forecast of floods in certain areas of Peru have a lead time of 9 to 7 days. Lead time of forecasts for seasonal and slow-onset disasters are also to be considered; they could be up to 3 months lead time. Depending on these times actions will be matched in step 6.

Time				
Preparation time in days	Implementation time in days	Action lifetime in days	Time a specific action takes to make effect	Timing
20	4	30 to 60 days	Water could be drink safely 1 hour after treatment	Any season

- e. Roles, responsibilities and capacities: Identification of who will be involved in the implementation of the respective action is the key for the effective implementation of the Standard Operating Procedures (See [SOP design guide](#)).

Roles , responsibilities and capacities of implementation (can be implemented or there is need of extra support - be specific)						
Organization Focal Point Position / Role	Organization M&E Focal Point Position/ Role	Government Counterpart Department/Position/ Role	Community leader Focal Point Position / role	Partner agency – could be local / international NGO, CSO, FBO, UN, private sector etc. If yes, Name	Met-hydro services position / role	Feasibility related to the available institutional and HR capacity. (Propose a solution)

				company/Position / Role		
DM Officer -	MEAL officer	DRRM department	CBDRR president	Civil Defense	Chief Hydro-met	All staff is in place and with full capacities of coordination and implementation

- f. Identification of responsible positions from operational departments. The below mentioned positions should be included in the standard operating procedures planning process in order to guarantee that each of the task necessary to implement the action are executed effectively.

Operations
Operative support (which departments of the government/organization are involved in FbF implementation: Procurement, Finance, Fleet etc?)
Procurement: Position/Name - yes actively informed Finance: Position/Name - yes actively informed

- g. ‘Acting in vain’ is an action that is implemented, but later considered unnecessary because no extreme event occurs. There is a strong relationship between forecast capabilities/probabilities, vulnerability and budget allocation for the respective action. Acting in vain does not necessarily have a negative connotation as there are actions that could be ‘no-regret actions’. For example, if diarrhoea is endemic, purification tablets/chlorine containers are distributed without floods. During floods it is likely to become epidemic therefore, the action will not be totally in vain when vulnerability is high.

Action in vain			
How frequently is the organization/community willing to act?	What are the consequences of taking action in vain? Include community perspective	Kind of actions: High Regret Low-Regret No-regret	What is the plan B in case of acting in vain
Every time the forecast reach the danger level (unless there has been a distribution in the previous 30 to 60 days)	-X amount will be spent every time FbF is activated. -Distribution of chlorine containers go along with awareness campaigns, therefore community will increase their behaviours and practices in the long term even if the action is in vain. -Early action fatigue could be a negative effect (Crying wolf effect),	No regret	-The community is encouraged to store the chlorine containers in safe places in order to be use in case of future floods (within 30 to 60 days). -The organization keep registry of distributions and randomly monitors the use and status of the chlorine containers. If the product is still good, in case of

	for this, strong sensitization is crucial to minimize this risk.		future forecast reaching danger level, there won't be need to re-distribute. (Depending on the context)
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- h. The implementation of each action has a consequence or effect. Analysing the possible emerging risks (incl. environmental, social and economic) that could be generated by the action is critical to ensure that Forecast-based Financing is not contributing negatively to the creation of new risks. This analysis is done in step 2

Possible Emerging Risk What should be considered to avoid creation of new risks?
<ol style="list-style-type: none"> 1. Risk assessment of the target area before implementation 2. Sound understand of social, cultural and economic practices in relation to the use of chlorine containers 2. High quality dissemination campaign of safety key messages to handle chlorine containers.

6. Match actions with forecast options

Once all the information has been collected, recorded and examined by a multidisciplinary team, (same one mentioned in step 1) it will be possible to match those actions with the possible triggers. For this, a menu to select a trigger for your action is available as explained at the beginning of this document. (See [menu of triggers](#) guide). It is important to highlight that the above mentioned steps do not need to be implemented necessarily one by one, depending on the context steps could be done in parallel.

- Specify which forecast trigger from the menu will be used for each of the actions. For this, use the above described information about Time ([section d](#)) and Acting in Vain ([section g](#)). Note: As explained in the menu of triggers guide, in some countries it is difficult to find historical forecast, in some cases there are no more than 5 days forecast for certain hazards and many times it is only deterministic forecast and low resolution. Actions should be adapted to this conditions, and the implementing team should always keep this in mind from step 1 of this guide.
- In this process technical experts from the Meteorological/Hydrological department as well as disaster risk management practitioners should be involved in order to clarify any discrepancy and to provide technical support for the definition of the best action according to the available scientific information.
- With all of this information, the next step is to design standard operating procedures; see [SOP design guide](#).

Annex 1: From OXFAM - A PREVENTABLE CRISIS El Niño and La Niña events need earlier responses and a renewed focus on prevention

EXAMPLES OF PREPAREDNESS AND EARLY ACTIONS

Preparedness General measures

- Undertake risk analysis: combine meteorological and agricultural data to forecast impacts.
- Strengthen national and community-based early warning systems; communicate results effectively to all relevant groups.
- Develop multi-sectoral national action plans.
- Map start-up timelines and decision points.
- Identify resources, agree contingent funding.
- Develop and agree triggers for early action. Develop clear processes for triggering, escalating, recording and justifying decisions; harmonize these across organizations.
- Set up coordination, communication and information management structures and systems.
- Identify potential partners and traders, develop memoranda of understanding (MoUs).
- Provide training for local, district and national officials and partners.
- Provide information on how best to prepare at household and community levels.
- Undertake vulnerability assessments and register people for cash transfers.
- Build crisis modifiers into existing projects/donor proposals.
- Pre-position stocks.
- Identify key response modalities (cash, in-kind, vouchers etc); develop voucher templates if appropriate.
- Ensure evolving contingency plans that are updated with regular field information.

Examples of food security and livelihoods approaches:

- Identify critical markets and create/update market and livelihoods baselines in light of forecasts to determine appropriate food assistance and livelihood support.
- Support cereal banks or investigate the creation of new ones.
- Collect regular indicators from community and national levels for use in early warnings.
- Identify key geographical access routes to get to markets in the event of flooding.

Examples of WASH approaches:

- Collect community indicators and early warning information on surface water levels and yields, groundwater table levels, community indicators and seasonal trends in disease patterns
- Establish baseline data on access to water and sanitation, and hygiene habits and practices.
- Conduct water, sanitation item and non-food market baselines and analyses.
- Develop a water trucking contingency plan with community involvement by: identifying water sources; conducting market analysis of water trucking actors etc; identifying/mapping distribution points; and mapping health centres, ensuring all have minimum WASH standards.
- Promote good hygiene practices, household water treatment and water conservation for water scarce environments.
- Protect wells, boreholes and springs from run-off contaminated water.
- Promote raised latrines in flood-prone areas.
- Undertake evacuation drills.
- Prepare sandbags and pumps for use
- Identify emergency flood refuge sites and develop a WASH plan.

Early Action General measures

- Activate MoUs with pre-identified service/commodity/cash providers.
- Engage actively with donors. Develop clear proposals and budgets.
- Activate crisis modifiers in existing projects.
- Activate existing contingency plans and coordination structures.
- Deploy surge capacity.
- Undertake rapid assessments and continuous surveillance.
- Use the UN cluster system to map needs, responses and gaps.
- Scale-up safety nets.
- Coordinate humanitarian work closely with development actors and, where possible, integrate with development programmes.

Examples of food security and livelihoods approaches

- For pastoralists: undertake commercial destocking, provide veterinary services (mass vaccination programmes and diagnosis and treatment of diseases), and survival feed to core breeding animals.
- Provide cash for work and support for livestock diversification or flood protection.
- Support crop diversification/rotation, distribute and promote early- maturing and drought-resistant varieties, and shift crop calendars.
- Activate market-based systems to ensure adequate cereal supplies (support traders, lift export bans, make careful use of strategic grain reserves). Strengthen community adaptation capacity and improve the resilience of agro-ecosystems through training, farmer field schools, and techniques such as agroforestry, conservation farming and integrated production models.

- Begin food assistance in the most appropriate modality or combination. Increase size and duration of safety nets.
- Provide materials and support communities to protect their livelihoods assets (e.g. through elevated platforms/safe spaces to keep food, livestock, seeds and tools).
- Pre-position grain and seed protection bags.
- Establish flood/drought monitoring and early warning systems, and ensure that essential meteorological and related information are actively disseminated to farmers and the general public.
- Expand investment in irrigation and other water supply development and management facilities.
- Design and implement agricultural insurance schemes that minimize the risks that occur as a result of extreme weather events and other impacts of climate change.

Examples of WASH approaches

- Assess WASH-related health risks and begin mitigation measures through improving access to water, sanitation and hygiene promotion.
- Provide in kind, or activate market access to, non-food items such as soap, jerry cans, etc. to improve hygiene and water storage.
- Begin mass communication and community mobilization to minimize risk of disease outbreaks.
- Select and train community volunteers and hygiene motivators. Provide free or subsidized water for immediate domestic uses by 1) rehabilitating water sources (repairing existing hand pumps, tap stands, boreholes, spring catchments); 2) developing new water sources 3) or, if no other option, water tankering. Develop relationship with local water department to gain information on water points and access to local technical expertise.
- Distribute pumps and promote water saving, watershed management, soil conservation and new irrigation techniques.
- Provide safe water and sanitation to shelters.
- Provide/promote raised latrines in flood-prone areas.
- Provide drainage to remove stagnant water.