Step 2: Define how to assess the impact of the EAP activation

The ultimate goal is to determine whether the early actions implemented enabled the expected risk reduction (and effective response) goals (i.e. reduced the prioritized impact) that were planned and how those goals were achieved. Did the actions make a difference in the lives and livelihoods of people at risk? To what extent? Do people in FbF-assisted communities experience less adverse impacts on their lives, health or property than people who were not assisted through FbF? Impacts will be measured on key indicators related to health, well-being, physical assets and productive capacity.

Develop the impact assessment section of your EAP M&E plan, as follows:

- Define indicators (see examples in Table 2).
- Define your counterfactual approach.
- Choose data sources, data collection tools Develop/modify data collection tools.
- Define if the impact evaluation (and/or cost benefit analysis) will be conducted by the NS itself, by the IFRC or jointly, or via an external contract- e.g. academic institution, consultant etc.).

Assess household /community level impacts.

Investigate whether FbF has contributed to improve humanitarian outcomes. How you measure your impacts will vary according to your interventions.

Tip:
Keep in mind gathering impact data on the success of your FbF interventions will depend on the type of intervention. For example, early actions for shelter are immediately observable directly after the disaster event, while early actions such as the distribution of water purification tablets to prevent a cholera outbreak could take weeks to show full effect.

The following materials can support you in planning your impact assessment.

- Guidance on the evaluation approach: When and how to measure impact? (Guidance from the FbF M&E Guide, Section 3.2)
- Post-disaster survey questionnaire (example)
- Key informant interview (KII) guide (example)
- Focus group discussion (FGD) guide (example)
- Impact survey – mobile data collection template. Please note you need to create a (free, for humanitarian organisations) account on https://kobo.humanitarianresponse.info to access, copy & adapt this form

> **Brief list of common indicators/ measures of success**

The choice of indicators depends on the type of hazard, the impacts to be prevented or mitigated and the early actions to be taken.

Indicators to measure the impact of early actions are often taken from the following categories:

Health & well-being

- Mortality
    - *"Did less/no people die because of the disaster, as a consequence of FbF assistance?"*

- Morbidity
    - *"Did less people fall ill during/after the disaster, thanks to FbF assistance?"*

- Stress / anxiety
    - *"Did people feel less stressed and better able to cope with the impacts of the disaster, thanks to FbF assistance?"*

Shelter & housing

- Household housing structures
    - *"Did less people experience severe damages to the roofs and walls of their houses, as a result of received early assistance through FbF?"*

- Communal shelters
    - *"Did communal cyclone shelters withstand the disaster impacts and protect community members as planned?"*

Assets

- Personal assets
    - *"Did less people experience severe damages to their valuable possessions, as a result of received early assistance through FbF?"*

- Productive assets (livestock, orchards, sheds, etc., for example:
    - *"Did people experience fewer livestock deaths and injuries because they received forecast-based early assistance?"*

Factors impacting health, well-being, livelihoods, and others

- Food / water supply
    - *"Did people who received FbF cash assistance before the disaster suffer from less food insecurity during the disaster?"*

- Labour constraints
    - *"Did forecast-based actions help to reduce the time that people were unable to work*

due to the disaster impacts?"

- Public infrastructure (roads, clinics, schools, etc., for example:
  - *"Were community health centres better able to provide medical care to affected vulnerable people, thanks to FbF assistance?"*

- There are many other possible measures, depending on the programme/project theory of change, logframe and M&E plan.

Counterfactual approach

For example, "did households who were assisted through FbF experience fewer disaster impacts than households who did not receive this type of early help?"

How can we say with certainty that it was FbF assistance that led to the achievement of positive results, such as reduced suffering and fewer disaster impacts, rather than other interventions or external factors?

The use of counterfactuals has become an accepted and widely-used approach to causal inference in social science research.
In the context of FbF, a counterfactual is employed to answer a question such as: "What would have happened if the community hadn't received assistance through forecast-based actions?". The impact of FbF is estimated by comparing counterfactual outcomes (what would have happened without FbF) to those observed under the intervention (what happened with FbF assistance).

The challenge is that the counterfactual cannot be observed directly.
They must be approximated with reference to a comparison group that resembles the conditions of the counterfactual as closely as possible.

In practice, FbF teams will usually aim to use one of two types of comparisons (or both) to estimate the counterfactual:

Historical impact data

Historical impact data from the same or comparable communities/areas that have been affected by a comparable disaster in the past.

+ Opportunities:

Historical data can be cheaper to obtain because they have been collected by someone else in the past. Since people have lived through the past disaster, historical data also provides a common reference point that may yield additional credibility to the analysis. (Check the risk

analysis conducted at the beginning of the EAP development in case information is relevant)

– Challenges:

The comparability of historical data is often problematic on several levels: the past disaster must be comparable to the disaster that triggered FbF actions in magnitude and timing; its impacts on the vulnerable and exposed population must have been similar. The data about the disaster and its impacts must be available for the same units of analysis, and the same level of disaggregation, which are used to assess the current (FbF-triggering) disaster and its impacts, and to analyse the effects of FbF.

Example:

If one of the primary indicators to measure the success of forecast-based actions is the reduction in the proportion of people suffering from diarrheal diseases during/after a disaster, the historical data must contain information on the incidence of diarrhea among the vulnerable and affected population group during/after the past disaster event. It will not suffice to have data only on the disaster itself or the damages to infrastructure and houses. The historical data must be available for the same geographical area in which the EAP implementation took place.

Impact data from comparison communities or households

Impact data from comparison communities or households who have been affected by the same disaster (which triggered forecast-based actions) and who are comparable in every other aspect, except that they did not receive assistance through forecast-based actions before the disaster.

+ Opportunities:

It is more likely to achieve data comparability when a random sample is drawn from the population of affected and vulnerable communities. Given the limited amount of funding and therefore coverage of most FbF interventions, it is likely to find comparison communities that were affected by a disaster but were not reached by assistance through forecast-based actions.

– Challenges:

The sampling frame needs to be designed and implemented carefully to avoid introducing bias into the data. Primary data collection is typically more expensive than working with historical, secondary data sets. Also collecting data in comparison communities can lead to expectations by interviewees that they will receive assistance, as following a disaster, assessments by a National Society are usually done to plan response.

Using a counterfactual is not necessary but strongly recommended given the current stage and

funding of FbF projects. Otherwise, the analysis cannot show a causal relationship between the intervention and outcomes convincingly.

It is unlikely in the case of FbF, there are situations where non-experimental approaches (without a comparison group) are the only feasible research design. For example, when a programme/project is implemented universally and every exposed and vulnerable person is being reached, there are no more isolated comparison groups. Unfortunately, FbF programmes – with their limited amount of funding – are far from this scenario. Therefore, the use of experimental or quasi-experimental assessment designs with comparison groups to assess the impact of FbF projects/programs is strongly recommended.

M&E Tasks and Tools

Review the availability of reliable secondary data sources

- IFRC M&E Guide on assessing the availability of secondary data (section 2.2.2, p. 33)

Identify a comparison group

- 2-page summary guidance on identifying comparison groups for FbF projects.
- BetterEvaluation.org overview of randomized controlled trial (RCT) methodology, including case study examples how to select comparison (or "control") groups
- Overview: Strategies for Causal Attribution (unicef)