

# Submission of the Zurich Flood Resilience Alliance on Financing Nature-based Solutions to the Standing Committee on Finance

In response to an invitation for submissions to the Standing Committee on Finance (SCF), in regards to the organisation of the forum on financing for Nature based Solutions (NbS) the Zurich Flood Resilience Alliance (ZFRA) offer the following inputs;

Submitted by **Practical Action** on behalf of the **Zurich Flood Resilience Alliance**.

## Scope and purpose of the Forum

The scope and purpose of the forum must be inclusive of both parties and of Non state Actors, and it must include the full diversity of NbS. NbS are the actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges, in our case their contribution to flood resilience. The forum must include NbSs that address a better use of natural or protected ecosystems (no or minimal intervention); NbSs for sustainability and multi-functionality of managed ecosystems, as well as the design and the management of new ecosystems.

The role of Nature based solutions is universal and the ZFRA feel we have practical and technical capacities that we could contribute to this forum as outlined below.

## NBS related papers and case studies that could inform the Forum

ZFRA has worked in over 20 developed and developing countries exploring practical ways to help communities strengthen their resilience to flood risk. Our objectives are to increase funding for flood resilience, to improve policies for flood resilience at local and global scales and to improve flood resilience in practice. As an Alliance we work to

In partnership with:



achieve our objectives through long-term flexible programming by delivering community programmes, producing new research, sharing our knowledge, and influencing key stakeholders on flood resilience.

Central to the ZFRA conceptualisation of flood resilience is the five capital including the Natural capital which we define as the natural resource base, including land productivity and actions to sustain it, as well as water and other resources that sustain livelihoods and wellbeing. To help communities understand the factors that contribute to their resilience and help them identify possible solutions including NbS, we have developed the Flood Resilience Measurement for Communities (FRMC) framework. Based on our ongoing work we have two specific case studies that could be valuable to share at the forum.

In Pekalongan, Indonesia, the alliance member Mercy Corps - in partnership with the Insuresilience Global Partnership - is designing an impact bond that will finance flood resilience projects including nature-based solutions/natural infrastructure and livelihood initiatives. In this pilot program an upfront investment in the flood resilience interventions will be made by an investor, that will receive their money back with a return from an agreed upon actor once the desired outcomes are achieved by the service provider within a predefined time period. Example of NBS interventions under considerations include: cash-for-work community projects for the planting of mangroves to serve as coastal protection through green and grey infrastructure, green engineered riverside swales for storm water runoff management as well as for sediment removal, eco-edu tourism, wetland rehabilitation, silvofishery (mangrove-aquaculture activity) and sustainable batik production through natural colouring substrate and constructed wetland for wastewater treatment. A key challenge in developing this financing structure has been being able to reliably project and quantify the monetary benefits of the nature-based solutions selected. Because of the systems-level benefits that nature-based solutions can provide, it becomes difficult to attribute which actors are benefiting most and could be engaged for allocating resources towards the NBS. In addition, NBS can take time to physically grow to the point of being effective and so the timescales can be difficult to align with potential constraints the resource-holders and investors have. This case study is being documented but has been covered as a case study on page 51 of the Report: [Blue Infrastructure Finance, where all win](#)

In Nepal the alliance member Practical Action has supported local communities to construct biodykes. These are simple bio engineering measures to manage and control flood water. This approach for is particularly useful as there is no need of heavy engineering works or a community is unable to afford construction of heavy engineering. The cost of construction and maintenance of bio-dyke is significantly cheaper than construction of concrete structures making them more suitable for developing countries. The constructions of bio-dykes require simple understanding of the technology and uses locally available resources in its construction. Hence, they can be implemented by local people in remote locations. We have produced a technical brief that describes the construction methodologies of building bio-dykes using local resources in a participatory manner, which included finance, budgeting and long term sustainability. This can be accessed [here](#).

## Potential institutions and events to partner with, in the organization of the Forum

The ZFRA would be interested to explore with the forum organisers how we could share our ideas and expertise to make the forum a success. Given the uncertainty around face to face meetings under the current Covid pandemic, we would be willing to contribute our expertise via webinars and also be sharing our knowledge products available on the flood portal, [here](#).

## Input to the forum on Financing Nature-Based Solutions:

We offer the following tools to support the better identification and analysis of the contribution of natural capital to flood resilience building;

The Flood Resilience Measurement for Communities (FRMC): was created by the Alliance in 2013 and is an innovation in community flood resilience theory and practice. It allows users to generate evidence about the ways in which a given area or community is already resilient to floods, as well as providing a guide to further develop this resilience. A core component of the tool is an assessment of Natural capital and the tool aids in an understanding of how natural capital interacts with the other capitals of the sustainable livelihoods framework. You can learn more about the FRMC here:

<https://floodresilience.net/FRMC>

The Post Event Review Capability (PERC): This award winning methodology was created to provide research and independent reviews of large flood events. It seeks to answer questions related to aspects of flood resilience, flood risk management, and disaster intervention. It looks at what went well, as well as opportunities for improvement, and results in a set of recommendations for reducing future risk. To learn more about the PERC methodology <http://floodresilience.net/PERC>

## About the Alliance

The Zurich Flood Resilience Alliance is a multi-sectoral partnership. Since 2013 we are focusing on finding practical ways to help communities in developed and developing countries strengthen their resilience to flood risk. The partnership is made up of the following ten organisations: [Concern Worldwide](#), the [International Federation of the Red Cross \(IFRC\)](#), the [International Institute for Applied Systems Analysis \(IIASA\)](#) the [Institute for Social and Environmental Transition-International \(ISET-International\)](#), the [London School of Economics](#), [MercyCorps](#), [Plan International](#), [Practical Action](#) and [Zurich Insurance](#). To read more about the alliance and our work visit the flood portal at <https://floodresilience.net/>