

# National Disaster Risk Reduction Center



**Ecosystem:** Wetlands, Grasslands, Forest, Fresh water/Oceans

**Area Impacted:** 6,945 ha

**Production Quantity:** 5,684,500 kilos

**People Employed:** 8,612

**Population Impacted:** 72,751



**Nepal**

## The Situation

Nepal's Banganga River Basin and surrounding communities face dangerous circumstances. Slash-and-burn agriculture, combined with erratic rainfall patterns, imperil the area. Compared to the 1990's, the forest coverage reduced by 60% due to slash and burn practices and climate induced disasters (DFOs, 2015). High tillage and unmanaged slopes have led to heavy soil erosion upstream. In the last 53 years, 16 major landslides have destroyed over 6,000 ha of land. The resulting flooding impacted over 118 species, four of which are listed on the verge of extinction.

These environmental challenges have only exacerbated challenges faced by local communities. As a result of the land degradation upstream, indigenous communities began moving downstream – causing conflicts between locals and newcomers as they competed for scarce resources. About 53% households in the area own less than one hectare of land, and eight percent are landless (land hold data, 2015). Further, farmers began using synthetic chemicals to combat the severe malnutrition among women and children in the area. Food sufficiency was only three to five months.

## The Solution

NDRC eliminated the traditional unsustainable slash-and-burn farming practices through local awareness campaigns. As a result, the practice decreased 80%. Instead, the organization encouraged the adoption of agro-forestry (products such as broom grass, lemon grass, bamboo, etc), sloping area land technology, climate-resilient cash crops (banana, turmeric, ginger, pineapple, etc), climate adaptive leguminous cover crops and a zero tillage farming system. These techniques have not only helped to restore soil biodiversity and control erosion, but they also increased incomes and ensured higher food security. By working with the communities, conflicts between indigenous groups decreased 70%. And along the way, NDRC reduced environmental impacts. Through bioengineering techniques, improved cooking systems, solar home systems and biogas plants, carbon emissions decreased and the use of wood decreased, further protecting the local forests and biodiversity.



# Farming for Biodiversity

Unsustainable agricultural practices remain one of the greatest threats to ecosystems and biodiversity. As the world population is expected to reach nine billion by 2050 and climate change further threatens livelihoods, we have to find ways of agricultural production that support farmers and the environment we all rely on.

The good news is these solutions already exist: From modern beekeepers who work on reviving ancient local wisdom to phone apps connecting rural farmers with urban consumers.

With Farming for Biodiversity, we are on a global mission to surface these local solutions, celebrate them and bring them to scale.

Our vision is to make these community-led initiatives shine and reach:

- Over 200 million globally through media impressions and publications
- Over 100,000 active website participants and readers of online publications
- 200 selected agriculture & biodiversity pioneers through eight technical and campaign trainings, hosted across the globe
- 800,000 farmers, conservationists and other land users at the community-level



Through our crowd-sourcing contest Solution Search, we have identified over 300 innovative and replicable ideas that connect agriculture, livelihood and the environment. These selections were assessed by our renowned panel of expert judges from leading organizations around the world.

Based on the solutions surfaced, we will host eight in-country workshops to introduce the most promising approaches to local influencers. Trainings will equip participants with the skills to implement locally driven solutions in their own communities. Longer term grants will provide an additional incentive to continue their work. These efforts will expand these approaches globally, reaching 800,000 people!

Throughout the project, we will gather, analyze and publish lessons learned. An online peer-to-peer network will connect all solution providers and facilitate interactive exchange across countries and themes. We will actively engage in global environment and agriculture policy processes – such as the Convention for Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC) and Sustainable Development Goals (SDG) meetings, drawing attention to community leaders and local champions.