

# A community financing mechanism for disaster risk reduction: The Bio-rights approach

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CASE STUDY



The **Humanitarian Innovation Fund (HIF)** supports organisations and individuals to identify, nurture, and share innovative and scalable solutions to the challenges facing effective humanitarian assistance. The HIF is a programme managed by ELRHA. [www.humanitarianinnovation.org](http://www.humanitarianinnovation.org)

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Front and back cover: Family from Nahualá Sololá, Guatemala, taking care of tree seedling for hillside reforestation. Credit: Care Nederland



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## HIF-ALNAP case studies on successful innovation

This study is one in a series of 15 case studies, undertaken by ALNAP in partnership with ELRHA's Humanitarian Innovation Fund (HIF), exploring the dynamics of successful innovation processes in humanitarian action. They examine what good practice in humanitarian innovation looks like, what approaches and tools organisations have used to innovate in the humanitarian system, what the barriers to innovation are for individual organisations, and how they can be overcome.

### About the case studies

Case study subjects are selected from a pool of recipients of grants from the HIF, (£75,000-150,000). The HIF awards grants for each stage of innovative practice<sup>1</sup>: grants of up to £20,000 are available for the recognition, invention, and diffusion stages, and grants of up to £150,000 can be obtained to support the development and implementation stages. The HIF selects grantees on the basis of a variety of criteria designed to achieve a robust representation of the range of activity in humanitarian innovation.

The case study subjects are chosen to reflect innovation practice in the humanitarian system. They cover information communication technology (ICT) innovations and non-ICT innovations, and they offer a balance between innovations that have reached a diffusion stage and those that have not. They also reflect the wide geographic range of the areas where innovations are being trialled and implemented. (For more information on the methodology and criteria used to select case study subjects, see the forthcoming 'Synthesis report' for the case study series).

### About HIF-ALNAP research on successful innovation in humanitarian action

These case studies are part of a broader research partnership between ALNAP and Enhancing Learning and Research for Humanitarian Assistance (ELRHA) that seeks to define and understand what successful innovation looks like in the humanitarian sector. The ultimate aim of this research is to improve humanitarian actors' understanding of how to undertake and support innovative programming in practice. This research partnership builds on ALNAP's long-running work on innovation in the humanitarian system, beginning with its 2009 study, *Innovations in International Humanitarian Action*, and draws on the experience of the HIF grantees, which offer a realistic picture of how innovation actually happens in humanitarian settings.

Innovation is a relatively new area of work in humanitarian action, yet it is one that has seen exponential growth in terms of research, funding and activity at both policy and programming levels. While the knowledge base around innovation in the humanitarian sector is increasing, there remain a number of key questions for humanitarian organisations that may be seeking to initiate or expand their innovation capacity. The HIF-ALNAP research has focused on three of these:

#### Primary research questions

**What does successful humanitarian innovation look like?**

**What are the practices organisations can adopt to innovate successfully for humanitarian purposes?**

#### Secondary research question

**What are the barriers to innovation in the sector and how can they be mitigated?**

The case studies will be used to produce a synthesis document that addresses these three questions. The outputs of this research are aimed at humanitarian organisations interested in using innovative practices to improve their performance, as well as organisations outside the humanitarian sector, such as academic institutions or private companies, seeking to engage in innovation in humanitarian action.

## 1. About this case study

Organisation	CARE Netherlands
Partners	Wetlands International
Project	Bio-rights: linking community- and ecosystem-based approaches to disaster risk reduction
Start date	February 2012

Grant	Start date	Grant period	Total HIF budget	Location
Development	1 February 2012	21 months	£150,000	Guatemala

This case study concerns a **Bio-rights** project carried out in partnership by **CARE Netherlands and Wetlands International in western Guatemala**. Bio-rights is a microcredit finance mechanism that unites community and ecosystem-based approaches to disaster risk reduction (DRR). Its innovation lies in the application of (i) combined sustainable livelihoods/ecosystem restoration programming to reduce disaster risk; and (ii) a financial incentive mechanism used in sustainable development in a DRR context.

Developed by Wetlands International in the early 1990s, Bio-rights is an approach that ‘covers the costs communities face to change their current unsustainable practice into long-term sustainable livelihood strategies’, while engaging the communities in this change and providing them with the skills necessary to maintain and further nature conservation activities on their own.

In its traditional form, Bio-rights helps communities meet their short-term development needs at the same time as working on longer-term ecosystem restoration. Small loans are provided to a community to help address the former and the community makes payments through conservation and the restoration of environment activities to achieve the latter. The loans are converted into donations once conservation measures prove successful at the end of a multi-year contractual period.

This innovation process was largely one of adaptation rather than invention of a new product or process. Bio-rights was successful at enhancing learning around the use of a community- and ecosystem-based approach in a DRR context. In addition to providing financial incentives for engaging in ecosystem restoration to reduce disaster risk and protect livelihoods, the project sought to build capacity for DRR through the establishment of community organisations for the coordination of DRR and humanitarian action and through the creation of community DRR action plans. Interviews with programme staff and community representatives indicated Bio-rights

communities had significantly stronger ownership of DRR activities than communities participating in other DRR programming in the region. The innovation process included some diffusion, but principally at the national level; however, case studies and other forms of data were gathered to disseminate learning around the approach post-programme.

Research for this case study was carried out remotely over the period of May 2014 to June 2015. A desk review was conducted and interviews took place over the phone with programme implementers as well as participants.

## 2. The Problem

With 75% of its population affected by poverty, and 29% of this figure living in extreme poverty, the department of Sololá, in western Guatemala, is subject to many vulnerabilities.<sup>1</sup> Situated in the mid-section of the Masá River's water basin, the Mayan K'iche' communities of Tzamabaj, Chicorral, Pasaquijuyup and Pak'im depend heavily on the cultivation of maxán leaves and coffee beans.

A lack of opportunities and means to improve agricultural and livestock production has resulted in residents expanding their traditional agricultural crop areas into the forest. This deforestation traps families in a downward spiral. By cutting down trees, communities facilitate erosion, which further increases the risk of landslides and mudslides during the rainy season. This also makes their homes, transportation routes and livelihoods more susceptible to harsh weather conditions.

The four Mayan K'iche' communities are, by many accounts, isolated. As programme developers explained, government services in the region are limited, with state representatives coming only for periodic visits, and there are no financial institutions. Moreover, the local DRR coordination bodies that should have been established, in accordance with Guatemala's national DRR policy, are not yet in place.

Yet the communities are extremely self-organised. Cultural leaders, called *principales*, act as community representatives, facilitating community decision-making and participation. *Principales* help advance the work of local and national organisations and fulfil important functions such as park management.

In sum, the four Mayan K'iche' communities faced the combined problems of disaster risk, vulnerable livelihoods and eroding ecosystems, yet also possessed a strong local capacity for participation. CARE Netherlands and Wetlands International identified the Bio-rights method as an appropriate mechanism for addressing this set of problems while capitalising on the local capacity for participation.

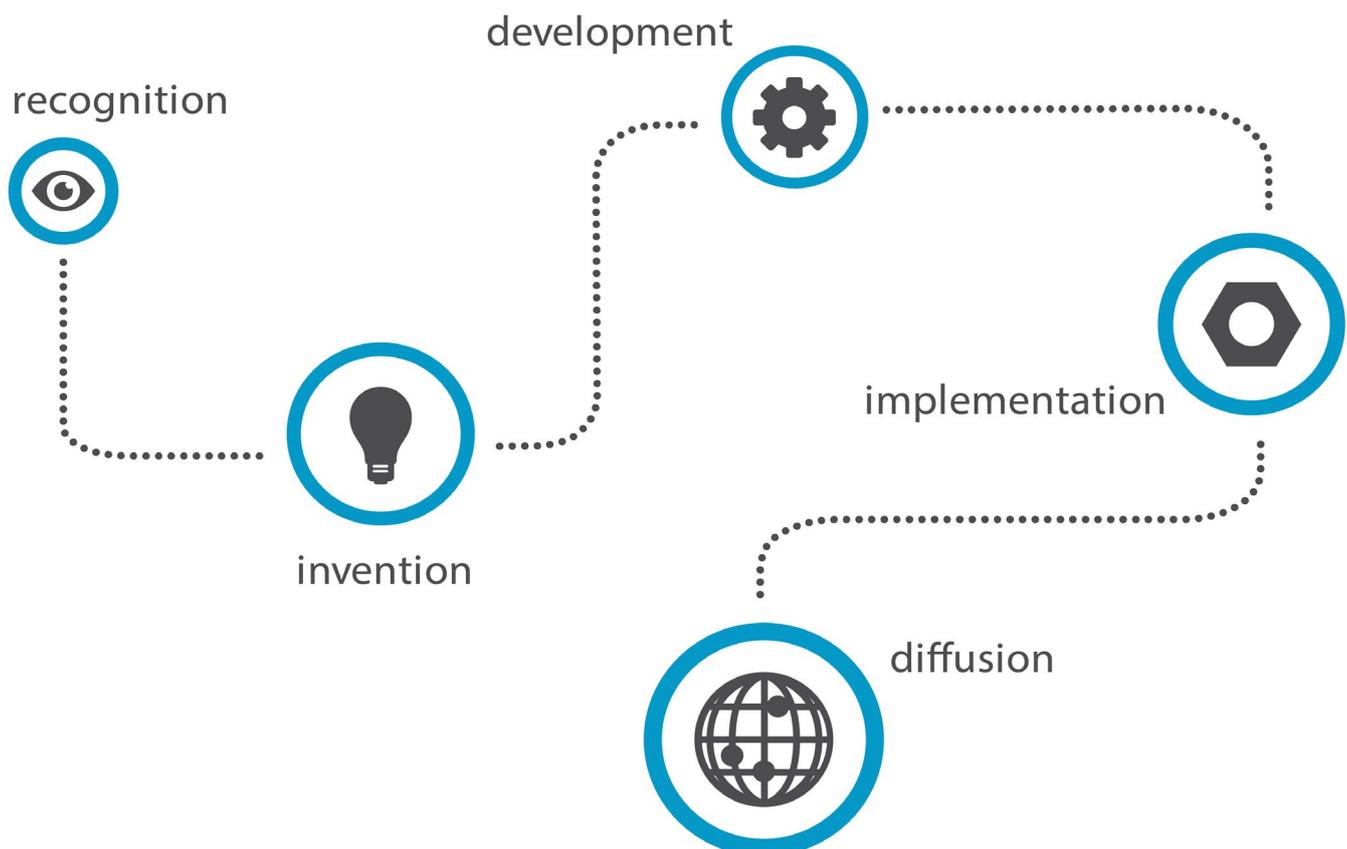
### 3. The innovation process

The stages through which successful innovations progress are often unpredictable and dynamic in nature, but there are often similarities. It is therefore useful to understand this innovation process when trying to capture why particular innovations succeed or fail.

There are various models to describe the innovation process, but HIF uses a model based on five stages:

- **Recognition** of a specific problem, challenge or opportunity to be seized
- **Invention** of a creative solution or novel idea that addresses a problem or seizes an opportunity
- **Development** of the innovation by creating practical, actionable plans and guidelines
- **Implementation** of the innovation to produce tangible examples of change, testing it to see how it compares with existing solutions
- **Diffusion** of successful innovations – taking them to scale and promoting their wider adoption

These five steps provide a useful archetype for the innovation process and are used in the HIF case study methodology. But they come with the caveat that innovation is complex and non-linear, and that identifying deviations from this model is just as important as (and possibly more so than) confirming the applicability of the model itself. The HIF-ALNAP case studies will seek to map in greater detail the chronology of these stages and how they overlap and interact for each HIF grantee.



### 3.1 Recognition



The Bio-rights project was implemented through a partnership between CARE International, a non-governmental organisation engaged in development and humanitarian assistance, and Wetlands International, an environmental organisation working on the conservation and protection of wetlands worldwide. The two organisations began working together through the Partners for Resilience (PFR) alliance, consisting of five Netherlands-based organisations, which was launched in 2011. The PFR's mission is to contribute to the resilience of communities by using an integrated approach to DRR that incorporates climate change adaptation (CCA) and ecosystem management and restoration (EMR).

Half a year after the formation of the Alliance, at a Global Conference for PFR partners, Wetlands International proposed applying the Bio-rights approach in a subset of the PFR projects in Guatemala. Wetlands International had developed Bio-rights as an integrated approach to sustainable development and ecosystem management in Mali and Indonesia, and senior staff felt it would be a potentially useful tool for an integrated approach to DRR. CARE has worked in Guatemala since 1959, implementing programmes in the Sololá region for some years. Wetlands International started work in Central America much more recently. These partners were implementing PFR projects in six communities when the opportunity to apply the Bio-rights approach was recognised.

Bio-rights is an innovative financing mechanism for reconciling poverty alleviation and environmental conservation. It was originally designed to address a critical problem in sustainable development programming – namely, the perceived trade-offs between longer-term ecosystem conservation and the more short- or medium-term economic development of poor communities that live in or near such ecosystems (see Box 1 for more background).



Photo: Development of a community risk map by the small village of Pakim, Nahualá Sololá.

Credit: Care Nederland

### Box 1: Background on Bio-rights approach in the sustainable development context

Implementation of Integrated Conservation and Development Projects (ICDPs) from the 1980s onwards, represented the first major effort to bring together sustainable development and environmental conservation objectives (Ferraro & Simpson 2001). Two decades later it was concluded that most ICDPs did not produce the required results as they failed to adequately address the trade-offs that constrain the achievement of win-win solutions, while no mechanisms were built in to ensure long-term sustainability (Mc Shane & Wells 2004; Barret & Arcese 1995; Sanjayan et al., 1997). Subsequently, Payment for Environmental Services (PES) schemes emerged, under which resource users pay local land users a mutually agreed market price for the maintenance of an ecosystem service. In Central America for example PES has been established to ensure stable and clean water supplies through watershed protection (Sanchez-Azofeifa et al., 1997; Pagiola 2007).

While PES has delivered success locally, the poorest and most disadvantaged groups are rarely able to engage in these funding schemes (Landel-Mills & Porrás 2002; Ravnborg et al., 2007). This is the result of the fact that most PES schemes are purely financial transactions, with little or no emphasis on capacity building, awareness raising, community mobilisation and dialogue on allocation of local resources rights. Wetlands International has developed the 'Bio-rights approach' in response to these challenges, uniting innovative finance schemes, derived from the microfinance and PES sectors, with more conventional conservation and development approaches.

Source: Stichting CARE Netherlands (2011) Bio-rights Grant application: 3-4

Wetlands International developed the Bio-rights approach to work towards reconciling conservation and development.<sup>2</sup> Bio-rights achieves this by offering small loans to communities in exchange for their active involvement in ecosystem restoration and conservation. These loans are used to support sustainable development activities that improve the livelihoods of community members. If communities fully implement the pre-agreed conservation activities, the loans are converted into grants and used as community-based revolving funds that can provide longer-term capital for sustainable development. Bio-rights projects are structured through a contractual agreement between Wetlands International and the participating communities, and typically span several years.

Given the PFR's mission of achieving an integrated approach to CCA, ecosystems management and DRR, Bio-rights was seen as a way to boost PFR programming in terms of reach and learning while also testing the approach in a new context (key informant interviews). CARE and Wetlands International wanted to test 'how Bio-rights [could] be integrated into the disaster risk reduction planning cycle, as a means to combine different risk reduction measures and create resilience' (key informant interview).

### 3.2 Invention



While some innovations in the humanitarian sector represent inventions of new solutions, others are in fact the identification and application of best practices from other sectors in the humanitarian context. Bio-rights is an example of the latter.

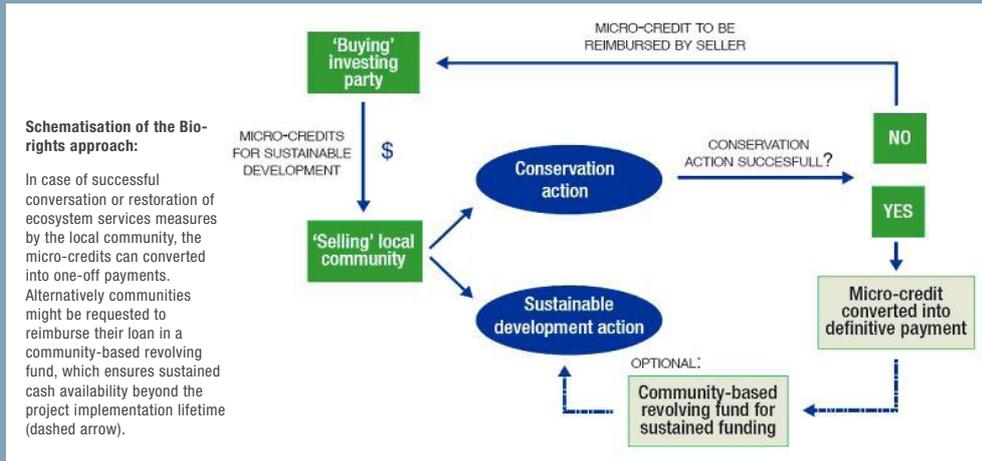
The Bio-rights approach has only ever been used in purely development contexts. It has principally been used in more stable contexts for livelihoods diversification or improvement and, most often, payment activities are tied to the restoration of mangroves. The implementing teams at CARE and Wetlands therefore needed to adapt the approach in a number of ways to fit the context and the timescale for the project (see Table 1).

**Table 1: Comparison between Bio-rights in a development context, Bio-rights for DRR and PFR DRR programming**

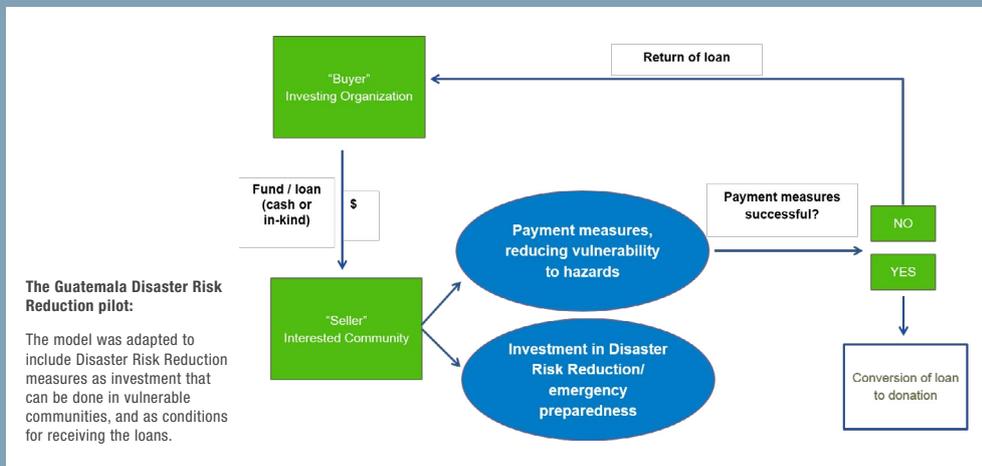
	Bio-rights as originally designed for development context	Bio-rights adapted to DRR context	PFR
<b>Aims</b>	Ecosystems management, watershed management, CCA	Ecosystems management, DRR, with less focus on CCA	Ecosystems management, DRR and CCA
<b>Levels at which it strengthens resilience</b>	Community, civil society, landscape	Focused mainly on community; some engagement with municipalities	Community, civil society, landscape
<b>Includes financial incentive</b>	Yes	Yes	No
<b>Timeline</b>	Multi-year	1 year	4 years

As with the previous Bio-rights projects, communities in Guatemala were offered loans to support sustainable development activities. However, in this case, the loans were paid for through ecosystem-based risk reduction activities, such as reforestation (see Figure 2 for a comparison of the two approaches). The implementation of the four projects began and ended prior to those of the six PFR-implementing communities. At the close of the initiative, the four Bio-rights projects were absorbed into normal PFR programming. The DRR and ecosystem restoration activities continued independently, but community representatives took part in PFR trainings and assisted the other six communities by contributing learning<sup>3</sup>.

Figure 1: Comparison of original Bio-rights model and version adapted for DRR context



**THE ORIGINAL BIO-RIGHTS MODEL**  
Combining conservation and development



**BIO-RIGHTS MODEL ADAPTED**  
To a disaster risk context

Source: Wetlands International (2014) Bio-rights promotional presentation for PFR partners.

### 3.3 Development



Wetlands International had already developed detailed step-by-step guidance on the Bio-rights approach. A book of guidance and case studies was published in 2009.<sup>4</sup> However, many adjustments needed to be made to suit the contextual particularities and principal aim of DRR. The majority of these were done in an ad hoc fashion owing to the new context and type of activities chosen by the communities as well as the limited exposure implementation staff had to the approach. To assist with this, one of the authors of the original Bio-rights guidance acted as an advisor to the programme.

As one key informant explained, if one were to compare the Sololá Bio-rights model to the traditional model described in the guidance, 'it was sincerely simplified'. CARE and Wetlands International attempted to apply a fuller model at first, but, through the development and implementation phase, elements were dropped or deprioritised. For instance, in the traditional model, 'communities receive support with the establishment of revolving funds for sustained lending in case they meet their contractual obligations'.<sup>5</sup> Given the short programme cycle and the particularities of the communities, this element was modified significantly.

Early on, a workshop was organised to train the CARE and Wetlands International teams on the approach. However, this took place prior to half of the core team members being hired. This meant untrained team members learned the Bio-rights approach as they went, leading to a feeling that the programme was in a continuous process of trial and error.

The combination of extreme poverty, local financing constraints, high levels of community engagement and vulnerability to disasters that could be significantly reduced through the application of a longer-term approach made the Sololá region a suitable testing ground. Four communities were selected for the project proposal based on their fulfilment of a number of programme-specific characteristics:

- Exposure to common threats;
- High levels of vulnerability;
- Similar socioeconomic and geographical characteristics;
- Low capacity to deal with risks;
- Experience of the partners in the region.

The data initially used to analyse the Sololá region were not sufficiently detailed. During the initial scoping visit, it became clear the four communities' political and administrative divisions did not match the watershed divisions envisaged, in part because of the mountainous terrain that split the main watershed into several smaller 'micro-watersheds'. As a consequence, CARE and Wetlands used a micro-watershed-based approach with a much smaller geographical focus than originally anticipated. The selection process had to recommence and four new communities were chosen, delaying implementation of the projects significantly.<sup>6</sup>

Once the communities were chosen, CARE and Wetlands International started contract negotiations with community leaders, the *principales*. This step is an integral to the Bio-rights approach. The following components were negotiated:

- Delimitation of the involved communities;
- Identification of direct participants and their roles;
- The types of activities to implement with the loans;
- Details of the loans.<sup>7</sup>

However, this proved rather challenging. The negotiations lasted much longer than expected, in large part because of the financial nature of the agreement. Furthermore, in Mayan culture, verbal agreements carry the same level of confidence as formal documents. The term ‘contract’ was deemed too rigid, so both parties signed ‘agreements’.

### 3.4 Implementation



In this stage, community representatives were trained in DRR and local coordinators for disaster reduction were formally established.

The selection of development activities to be funded by the loans was highly participatory. PFR programme staff held meetings and community assemblies with the communities, specifically encouraging the participation of women. Communities received training on how to assess their own vulnerabilities and needs and led the selection of the most suitable community project. Activities funded by the loans have always been, in Wetland International’s words, very ‘green’ (e.g. planting fruit trees, sustainable farming and fishing, ecotourism). In Sololá, the projects were seen as much more ‘grey’, focusing on infrastructure (see Table 2). They also had a clearer connection to DRR than they did to supporting sustainable livelihoods. This was unexpected for Wetlands International and pushed the programme team and its advisors to stretch beyond their areas of expertise.

Table 2: Projects chosen by communities participating in Bio-rights<sup>8</sup>

Community	Project
Pak’im	Emergency shelter/community hall
Chicorral	Emergency shelter/classroom
Pasaquijuyup	Rehabilitation of 5 km of dirt access road
Tzamabaj	Emergency shelter/classroom

The selected payment activities fell under the following categories: landslide risk mitigation, reforestation and forest management, soil conservation, livelihood strengthening and adaptation<sup>9</sup>. Communities engaged in capacity-building activities on DRR, CCA and EMR. They also undertook the development of local emergency response plans and integrated DRR plans.

Principales and members of the Local Coordinator for Disaster Risk Reduction (COLREDs)<sup>10</sup> took a central role in organising and coordinating work calendars for the defined activities. The technical officers would visit one community per week to offer trainings or assist with other activities.

The Bio-rights programme ran for one year, at the end of which it was integrated into broader PFR programming in Guatemala. There had been the intention to embed the approach in government funding facilities or to bring a microfinance agency on board to continue the finance mechanism over a longer period of time. However, there was insufficient time in the implementation of the project to achieve these linkages for longer-term sustainability. This was because Bio-rights was tied exclusively to HIF funding, without further financing from PFR.

Despite this, the Bio-rights communities continued participating in DRR activities after the close of the Bio-rights project, even when no financial incentive for these activities.

### 3.5 Diffusion



The Bio-rights was one facet of a larger PFR programme in Sololá and this, in turn, was a facet of the broader country programme. This structure lent itself to the circulation of learning. Community representatives often took part in seminars and conferences to share learning, while staff at more senior levels worked on or liaised across both regional and national programming. PFR staff from Guatemala were also invited to the opening and closing workshops of Bio-rights. They heard first-hand from implementers and community representatives what the methodology resembled on a daily basis and its pros and cons.<sup>11</sup>

Wetlands International saw this initiative as an addition to its portfolio, a way of further demonstrating the value of the Bio-rights approach. Therefore, significant efforts were made to document the case and promote it more widely. For instance, the approach was presented as a means of promoting investments in DRR, while addressing the root causes of ecosystem degradation at the UN International Strategy for DRR Global Platform for DRR in May 2013 in Geneva. Wetlands International has also invested in documenting this initiative to update its guidance material on the Bio-rights approach.

As this case study was being finalised, PFR partners were preparing for a final Global Conference in October 2015. The PFR Alliance is coming to a close at the end of 2015 and the group will transition into an advocacy mode, working to influence policy and practice in ecosystem management and CCA. Bio-rights has been applied to other countries by PFR partners and the Global Conference will feature learning from these cases; it is likely that the advocacy work of the PFR Alliance will also promote the further application of Bio-rights.



Photo: Tapexcos, indigenous table like structures, were used to help improve and make safer the production of granadilla and make it safer.

Credit: Care Guatemala

## 4. Was this a successful innovation process?

Inherent in all innovation processes is some degree of failure. This presents a challenge to understanding what contributes to a good innovation process: even successful processes will experience difficult pilots or setbacks in design or diffusion. The HIF-ALNAP research on innovation processes therefore distinguishes between a good innovation – an output of an innovation process that leads to measurable gains in effectiveness, quality and efficiency – and a good innovation process. This research defines a successful innovation process through three criteria:

Table: Criteria of success for innovation processes

Increased learning and evidence	There is new knowledge generated or an enhanced evidence base around the problem the innovation is intended to address, or around the performance of the innovation itself.
Improved solution	The innovation offers a measurable, comparative improvement in effectiveness, quality, or efficiency over current approaches to the problem addressed by the innovation.
Adoption	The innovation is taken to scale and used by others to improve humanitarian performance.

Through the research process for the case studies, ALNAP and HIF are also seeking to understand how HIF grantees define success in their work, in order to identify unexpected or unacknowledged benefits from engaging in innovation.

Evidence collected for this case study was used by the research team to assess the success of the Bio-rights innovation process against the above three criteria. Overall, Bio-rights was successful in generating evidence and learning around the Bio-rights approach. While all key informants, from both the implementing organisations and communities, felt the communities that participated in Bio-rights had greater ownership over activities than communities working with the standard PFR approach, there has yet to be a comparative study that establishes the specific contribution of the Bio-rights approach to improved resilience outcomes. Specifically, findings were as follows:

### Increased learning and evidence

PFR has acted as a platform to circulate best practice gathered in Sololá. Having Bio-rights embedded within a broader programme, with a longer timeline, meant much learning could be transferred and exchanged. Community representatives started sharing learning from their activities to assist in the development of other communities' projects.

Learning has also been spread beyond Guatemala, influencing Wetlands' further applications of the Bio-rights approach in other DRR contexts, as described below under 'Adoption'.

### Improved solution

Given Bio-rights projects' compressed timeline, it was difficult to draw comparisons between these communities and those participating in the normal PFR programme. There was recognition within CARE and Wetlands International, and among external evaluators visiting the projects, that the Bio-rights communities felt much more ownership of their activities.<sup>12</sup> The external evaluator and the accompanying staff member from headquarters were 'surprised' by the difference between the communities that took part in Bio-rights and those that took part in PFR projects.<sup>13</sup> All community representatives and programme staff interviewed stated that Bio-rights had generated greater ownership in large part because of its participatory approach. Communities also engaged in DRR activities after the end of the project, when the financial incentive was no longer present, indicating potential long-term impacts of the Bio-rights project on community attitudes and behaviours.

Unfortunately, an external evaluation that was conducted for all PFR and Bio-rights programming did not disaggregate data collected from the PFR and the Bio-rights communities. This resulted in a missed opportunity to undertake a comparative analysis that could support conclusions regarding the contribution of Bio-rights to improved DRR or resilience outcomes. Wetlands International is seeking to improve its use of comparative methods in the future in order to demonstrate the causal link between Bio-rights and improved programme outcomes. For the time being, there is considerable qualitative and anecdotal evidence of the positive effects of the programme, but no formal evidence it offers a more effective approach than alternatives.

**“Two elements made Bio-rights more sustainable [than PFR]. First, the community groups truly assumed their role [...] [Second], the communities participated in an active way.”<sup>14</sup>**

### Adoption

In addition to the advocacy work planned by PFR, which will include reference to the Bio-rights approach, Wetlands International has continued to build on its use of Bio-rights in a DRR context, using the lessons learnt from the HIF-funded project in Guatemala to support further applications. Currently, Bio-rights is being used as an instrument in the Indonesia-based Building With Nature. This multi-year project aims to use ecosystem restoration along the coastlines of Indonesia in order to achieve longer-term DRR objectives, while also creating opportunities for inclusive economic growth. It is supported financially both by the Indonesian government and by the private sector. Specific lessons from the use of Bio-rights in Guatemala have been applied to inform the Building With Nature project, such as the importance of keeping a focus on livelihood activities rather than engaging only with infrastructure-building activities that do not directly support local incomes.

At the time of writing, Bio-rights has yet to be systematically implemented by anyone other than Wetlands International. However, the organisation continues to document applications of the approach and has promoted it within the PFR Alliance and beyond. Other organisations have shown an interest in testing the approach in different contexts.

## 5. What are we learning about innovation?

Drawing on research from the humanitarian sector and beyond, including previous case study material, HIF has identified a range of factors generally held to be fundamental to successful innovation processes. An important part of the case study research lies in testing, through the experience of the HIF grantees, the extent to which these propositions hold true in humanitarian settings.

- **Managing relationships and setting common objectives**

Innovation always involves multiple actors – partners, implementers and end users – all of whom can change over the different stages of an innovation process. Assigning specific time and resources to managing these relationships and ensuring common objectives across the different stakeholders of an innovation will contribute to a successful innovation process.

- **Dividing tasks and responsibilities**

Given the complexity of many innovation processes, a clear division of tasks and responsibilities between individuals and organisational units is important for developing a successful innovation.

- **Resourcing an innovation**

Working in innovation requires flexibility to deal with the unknown, and this is particularly so with an innovation in the humanitarian sector. Budgets and resource plans therefore need to be suitably flexible to accommodate several possible outcomes (e.g. the need for further trials) as well as likely deviations from the original plan.

- **Flexibility of process**

At its heart, managing an innovation process is about creating space for flexibility. Processes featuring flexible timelines, feedback loops for adaptation during the piloting phase and individuals resourced to execute changes in response to emerging results will be more likely to succeed.

- **Assessing and monitoring risk**

Innovation processes in humanitarian action need to have an appropriate relationship to risk. We expect processes will be more likely to produce improved solutions and achieve uptake when they include an assessment of the different risks that might have an impact on the effectiveness of the innovation, as well as a strategy or plan to monitor and adjust development in light of changes in these risks on an ongoing basis.

- **Drawing on existing practice**

Knowledge of existing practice and experiences is expected to contribute to more effective innovations through a better understanding of past attempted solutions, an accurate initial understanding of the problem or opportunity addressed by the innovation and an awareness of potential users and their needs.

Findings for these six propositions are presented in the graphics on the next few pages.

## Managing relationships and setting common objectives

### How this factor worked in this case study

Although a clear memorandum of understanding was laid out between CARE and Wetlands International, this related only to the management of funds and reporting requirements. Day-to-day communication and coordination with external partners was done much more fluidly.

The programme was designed to be implemented and managed collaboratively by CARE and Wetlands International. The two technical officers, one from each organisation, would work together with the four communities, complementing each other's areas of expertise. Their supervisors, who both worked as coordinators in the broader PFR programme, would provide support, and three advisors at the headquarters or regional level were available to assist periodically.

### Challenges

The original arrangement for co-managing the project by CARE and Wetlands International required fundamental adjustments when personal issues emerged between the two technical officers that undermined a constructive working relationship. In order to address this issue, the communities were divided between the technical officers, rather than engaged with under shared management, and most cross-organisation communication had to take place at the level of the supervisors.

### How this factor related to the performance of the innovation process

Despite this challenge, the resulting adjustment in implementation and communications did not seem to have hindered the teams and their partners' understanding and commitment to the objectives of Bio-rights. A possible explanation for this was the deep commitment of the communities to this initiative because of the financial mechanisms behind the Bio-rights approach,<sup>15</sup> the participatory nature of the project and the strong existing capacities for organised participation present in the implementing communities.

## Dividing tasks and responsibilities

### How this factor worked in this case study

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As indicated above, Bio-rights had a clear hierarchy within the implementation team. Furthermore, this innovation was a 'marriage' of equal partners with complementary areas of expertise: CARE had knowledge of the region and the communities and Wetlands International was the owner of the approach.

### Challenges

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However, team dynamics required fundamental changes to day-to-day implementation of activities. Regardless of this difficulty, programme objectives were met and surpassed. From the interviews conducted, it seems the team could adapt to these changes and, though communication was compromised at certain levels, clear divisions of tasks of responsibilities maintained.

### How this factor related to the performance of the innovation process

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While a clear division of tasks and responsibilities was present, it was not clear from this case study how this contributed to a successful innovation process, particularly in comparison to other factors that seemed more relevant, such as the team's ability to draw on existing practice and experience.

## Resourcing an innovation

### How this factor worked in this case study

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The Bio-rights programme demonstrated that considering long-term resourcing of an innovation is a cornerstone to the first success criterion of increasing learning and evidence.

Bio-rights was designed to sit under the PFR umbrella during its implementation and to then be merged with other PFR programming in Sololá after its completion. The innovation had a timeline of a year, while other projects would run for four years.

### Challenges

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While Wetlands International has resourced further DRR applications of the Bio-rights approach, Care and Wetlands International did not undertake efforts to finance further diffusion of the approach.

### How this factor related to the performance of the innovation process

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This approach enabled learning to be smoothly and constructively transferred between communities and types of projects. Community representatives from Tzamabaj, Chicorral, Pasaquijuyup and Pak'im were invited to participate in broader PFR Linking & Learning activities and trainings. Given the more advanced nature of their projects, they were able to share very relevant lessons with their peers. This process continues even now Bio-rights is officially finished.

## Flexibility of process

### How this factor worked in this case study

The line between development and implementation can understandably become quite blurred when a programme is very flexible. Bio-rights was indeed flexible as a programme, as demonstrated by its positive results regardless of delays in the timeline. However, while in some innovation projects undertaken by HIF grantees there has been an intentional approach to building in flexibility to a development and implementation process, in the case of Bio-rights this flexibility appeared to occur more by accident than by design. The flexibility was largely a response to unforeseen challenges in staff dynamics that were not directly related to the Bio-rights approach or the innovative nature of the project.

### Challenges

Staff working on the day-to-day implementation of the innovation did not necessarily always see it as an innovation. There was a 'push and pull' between Bio-rights being perceived as an innovation or not. For example, two implementers stated that the initiative was a 'continuous process of trial and error', but felt this was largely because they had not been formally trained on the Bio-rights approach before starting work on the programme. Trial and error therefore did not refer to identifying and working on unexpected issues in a pilot, as is typically the case in an innovation, but instead referred to the demands placed on staff who were not appropriately trained in the approach at the outset of the project.

Moreover, implementers and advisors said experienced staff quickly fell back into their old habits and implemented the innovation as they would any other programme.

### How this factor related to the performance of the innovation process

In order to support greater flexibility in future innovation projects, team members offered suggestions on how to establish a stronger awareness among programme staff of innovation processes as distinct from regular forms of programming:

- One advisor believed the team had not taken enough distance to assess how Bio-rights was progressing as an innovation. It was suggested that Bio-rights would have benefited from having someone in the implementation team responsible for organising periodic meetings where hard questions were asked about the innovation process rather than the programme;
- Another suggestion was to very clearly 'frame' the programme as an innovation from the very beginning. One staff member did not feel this happened because some staff started after the design phase was already completed.

There was also the idea of having a researcher involved throughout the project to capture qualitative data about the programme. This individual would help build the 'story' of the innovation while also reminding the team of the distinct nature of the programme.

## Assessing and monitoring risk

### How this factor worked in this case study

A thorough risk assessment for the initiative was done during the drafting of the programme proposal for the HIF. During implementation of the programme, a number of risk assessments were done at the community level. These were to be expected because of the central aim of the programme: DRR.

However, beyond these, no evidence was found of the higher-level, programmatic risk assessment being revised or updated. It is difficult to determine if the innovation would have been more successful had this been done.

### Challenges

CARE and Wetlands International correctly identified and mitigated a number of risks. Nonetheless, two risks were not anticipated and did present themselves. These were:

- Lack of sufficiently detailed community information at the time of community selection;
- Extension of the contract negotiations with communities.

Interviews with programme staff indicate that monitoring of risk and progress was not prioritised.

### How this factor related to the performance of the innovation process

These risks had a compounding effect, creating significant delays in project timelines. This 'triggered' a number of the risks that had originally been identified and appropriately mitigated. A clear example of one of these risks was that of having communities' activities coincide with the rainy season or harvest. In this case, the success of the innovation was not compromised because the donor gave a no-cost extension.

## Drawing on existing practice

### How this factor worked in this case study

For the traditional Bio-rights approach, Wetlands International has made significant efforts to capture learning and reflect these in guidance. In Guatemala, strides were taken to ensure these were used. For instance, a workshop with CARE and the local Wetlands International team was organised, and one of the creators of the approach acted as an advisor to the programme.

### Challenges

Nevertheless, this application of the approach was so distinct that existing practice was of only partial use.

Moreover, not all staff were hired yet when the Bio-rights training took place. Therefore, they learned much more on the job rather than drawing on existing experience or practice

### How this factor related to the performance of the innovation process

The day-to-day implementers' recent exposure to the methodology may have contributed to a greater openness to adapt and adjust the approach to this new context, the DRR focus and the condensed timeline. Such willingness to accept change was important in assuring the innovation progressed and achieved its primary goals.

## 6. Emerging lessons for best practice in innovation

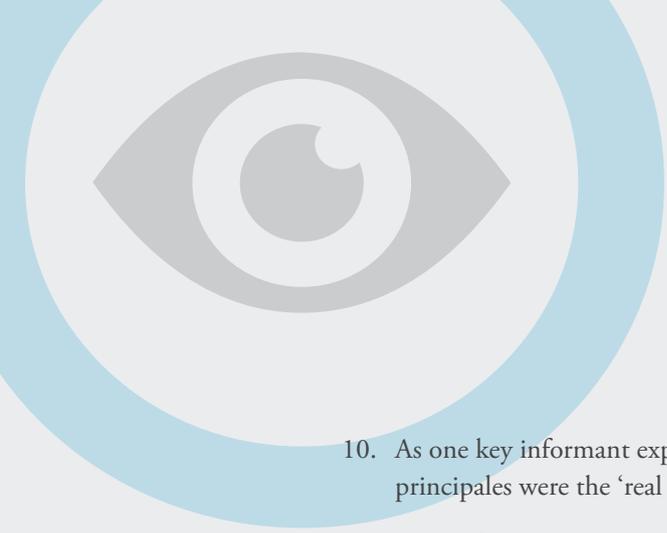
- A spirit of opportunism is necessary in innovation. Implementing teams must be able to identify worthwhile opportunities and projects or programmes must be flexible enough to allow staff to seize these.
- To support better generation of learning, the day-to-day implementers of the innovation should be encouraged to see the project as distinct from typical programming and should be given the time and space to periodically 'zoom out' from the project or programme in order to review the innovation process as a whole.
- Depending on the stage of the innovation, flexibility and formality can complement each other. This is particularly true for activities around communication with partners and end users, relationship management and dividing task and responsibilities.



## Endnotes

1. Stichting CARE Nederland (2011) HIF Large Grant Application.
2. Van Eijk, P. and Kumar, R. (2009) 'Bio-Rights in Theory and Practice. A Financing Mechanism for Linking Poverty Alleviation and Environmental Conservation'. Wageningen: Wetlands International.
3. Stichting CARE Nederlands (2014) HIF Final report: 2; key informant interviews.
4. Van Eijk and Kumar (2009).
5. Stichting CARE Nederland (2011) HIF Large Grant Proposal: 7.
6. Stichting CARE Nederland (2012) HIF Interim report 2 and 3; key informant interviews.
7. Wetlands International (2014) Bio-rights promotional presentation for PFR partners.
8. Ibid.
9. Stichting CARE Nederland (2012) HIF Interim reports 2 and 3.





10. As one key informant explained, the COLREDs were the ‘formal decision-makers’ while the principales were the ‘real decision-makers’.
11. Key informant interview.
12. Dávila, M. (2014) PFR in Guatemala Country Case for the Qualitative Process and Impact Study. Groningen University. ([www.rug.nl/news/2015/03/partners-for-resilience-and-gsg-present-research-results](http://www.rug.nl/news/2015/03/partners-for-resilience-and-gsg-present-research-results)). The external evaluation states, ‘A difference was found in the communities in which a Bio-rights approach was used. By working through a watershed management approach, performing multiple awareness campaigns and working intensively with the communities over a longer period of time, true ownership of the program was experienced’. (p.12) However, this statement includes two key inaccuracies: Bio-rights did not use a complete watershed management approach because of the particularities of the communities discovered after the start of the project, and the period of time for implementation was actually shorter, not longer, than that of the PFR programme. Therefore, the accuracy of this evaluation’s finding is questionable.
13. Key informant interview.
14. Key informant interview.
15. Contracts are usually signed with communities. Such relationships are taken very seriously in Mayan culture, so much so that the name of this document needed to be changed to ‘agreement’ to reduce legal connotations.





## Other case studies from HIF and ALNAP on innovation

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