Applying RAPTA to Indigenous People’s Green Climate Fund Concept Notes

UNDP, Bangkok, 7-8 February 2017
Citation

Contact details
CSIRO Land and Water, GPO Box 2583, Brisbane, QLD 4001, Australia
james.butler@csiro.au

Cover photo
Workshop participant presenting key issues for the Kenya case study (UNDP)

Copyright and disclaimer
© 2015 CSIRO To the extent permitted by law, all rights are reserved and no part of this publication covered by copyright may be reproduced or copied in any form or by any means except with the written permission of CSIRO.

Important disclaimer
CSIRO advises that the information contained in this publication comprises general statements based on scientific research. The reader is advised and needs to be aware that such information may be incomplete or unable to be used in any specific situation. No reliance or actions must therefore be made on that information without seeking prior expert professional, scientific and technical advice. To the extent permitted by law, CSIRO (including its employees and consultants) excludes all liability to any person for any consequences, including but not limited to all losses, damages, costs, expenses and any other compensation, arising directly or indirectly from using this publication (in part or in whole) and any information or material contained in it.
# Contents

Executive summary.......................................................................................................................... 4

1 Background.................................................................................................................................... 7
   1.1 The Resilience, Adaptation Pathways and Transformation Assessment (RAPTA) framework ................................................................. 7
   1.2 Indigenous People’s Green Climate Fund concept notes .............................................................. 8
   1.3 Case studies ............................................................................................................................. 9
   1.4 RAPTA components .................................................................................................................. 10

2 Workshop sessions .......................................................................................................................... 11
   2.1 System Description ................................................................................................................. 11
   2.2 System Assessment ............................................................................................................... 11
   2.3 Options and Pathways .......................................................................................................... 12

3 Vietnam case study ....................................................................................................................... 13
   3.1 System Description ................................................................................................................. 13
   3.2 System Assessment ............................................................................................................... 14
   3.3 Options and Pathways .......................................................................................................... 16

4 Nepal case study ............................................................................................................................ 18
   4.1 System Description ................................................................................................................. 18
   4.2 System Assessment ............................................................................................................... 19
   4.3 Options and Pathways .......................................................................................................... 22

5 Nicaragua case study .................................................................................................................... 25
   5.1 System Description ................................................................................................................. 25
   5.2 System Assessment ............................................................................................................... 27
   5.3 Options and Pathways .......................................................................................................... 27

6 Kenya case study ............................................................................................................................ 31
   6.1 System Description ................................................................................................................. 31
   6.2 System Assessment ............................................................................................................... 33
   6.3 Options and Pathways .......................................................................................................... 33

7 Conclusions and evaluation .......................................................................................................... 37
   7.1 Applying RAPTA to GCF ....................................................................................................... 37
   7.2 Evaluation .............................................................................................................................. 39

8 References ........................................................................................................................................ 41
The Resilience, Adaptation Pathways and Transformation Assessment framework (RAPTA) began development by CSIRO in 2013 following a request by the Scientific and Technical Advisory Panel of the Global Environment Facility. RAPTA seeks to apply existing principles of resilience, transformation, adaptation pathways and learning to the scoping, design and implementation of large development programs. While many of these concepts are well-established, to date they have not been applied within a single framework, or as a cohesive ‘toolbox’, to intentionally intervene in complex systems and achieve sustainability goals. The RAPTA Guidelines version 1.0 were published (in collaboration with UNDP) in 2016, and are now being piloted and refined by CSIRO and its partners through various development program planning activities.

In this case, CSIRO was invited by the United Nations Development Program’s (UNDP) Climate Change Adaptation Unit, Bangkok, to assist in the design of concept notes by Indigenous People’s representatives for submission to the Green Climate Fund (GCF). On the 7th and part of 8th February 2017, James Butler (CSIRO Land and Water) demonstrated tools from the System Description, System Assessment and Options and Pathways components of RAPTA using four case studies from Vietnam, Nepal, Nicaragua and Kenya. Using causal loop analysis, Theory of Change and intervention pathways, 20 Indigenous representatives, three UNDP and five consultancy participants analysed priority climate and development challenges and identified key interventions in the case study systems, and the sequencing of actions to achieve transformational change. Although too short and limited to allow a full multi-stakeholder RAPTA process for each case study, the 1 ½ day exercise served to highlight priority interventions that could form GCF project proposals. For each case study, these were:

- **Vietnam** (Tay, Nung, Hmong San, Diu, Dzao, San Chi, Caolan, Hoa and Kinh ethnic groups, Thai Nguyen Province): The priority issue was unstable upland agricultural productivity caused directly by increased climate variability and reduced water flows from native forests. The priority intervention was the allocation of public forest lands to local ethnic groups to be managed under successful traditional practices through co-management with government.

- **Nepal** (Gorung, Tamang, Magar and Dura ethnic groups in the Lamjung region): The priority issue was upland water scarcity, caused directly by longer dry seasons, inappropriate forestry policies, and the introduction of non-native vegetation. The priority intervention was the strengthening of traditional natural resource management and knowledge.

- **Nicaragua** (Miskitu ethnic group from Haulover, Indigenous Territory of Prinzu Awal Un): The priority issue was coastal erosion, caused by sand extraction, weak customary policies and institutions, deforestation, lack of awareness of climate change, and intensified waves and flooding. The priority intervention was strengthened natural resource management norms.

- **Kenya** (Maasai ethnic group from Narok and Kajiado Counties): The priority issue was famine, caused directly by drought, cross-border restrictions on movement, limited livelihood options, constrained access to water and poor pasture management. The priority intervention was the restoration and strengthening of cultural norms and practices for rangeland management.

Participants then developed a Theory of Change for the implementation of their interventions. Following this exercise, project activities were sequenced to minimise risks posed by future uncertainty. The resulting ‘implementation pathways’ formed the basis for potential GCF project plans.
A causal loop diagram being prepared by the Kenya case study group, which focussed on famine (UNDP)

A comparison between the priority RAPTA interventions identified by the four case studies and the initial GCF concept notes’ objectives developed prior to the workshop showed some changes (Table A). For Vietnam and Nepal the focus remained similar, with the management of public forests and strengthening traditional forest management, respectively. For Nicaragua the emphasis altered from territorial governance to strengthening coastal natural resource management, and in Kenya a similar shift was evident for pastoralism. The RAPTA interventions were more specific than the GCF objectives because they targeted underlying direct and indirect causes of climate and development problems, their complex linkages and related ‘vicious cycles’. As a result, they were potentially transformational, even though they did not necessarily address climate issues directly. The RAPTA analysis now provides the case studies’ representatives with a clearer rationale and justification for their GCF concept notes, and a potentially transformational set of targeted interventions. The draft implementation pathways also provide a logical plan for future program activities which account for future uncertainty.

**Table A.** Draft GCF concept note objectives developed for the four case studies prior to the RAPTA workshop, and the priority intervention identified as a result of the RAPTA exercise.

<table>
<thead>
<tr>
<th>Case study</th>
<th>Pre-workshop concept note</th>
<th>Priority RAPTA intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>Community ownership and co-management of forests between government and communities to sequester carbon and promote adaptation</td>
<td>Allocation of public forest lands to local ethnic groups to be managed under proven traditional practices through co-management with government</td>
</tr>
<tr>
<td>Nepal</td>
<td>Awareness raising on resilience to climate change; capacity-building of Indigenous people and their traditional knowledge and practices; alternative livelihood development; information dissemination</td>
<td>Strengthening traditional natural resource management and knowledge</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Strengthen territorial governance and livelihoods to adapt to climate change</td>
<td>Strengthen coastal natural resource management norms</td>
</tr>
<tr>
<td>Kenya</td>
<td>Enhance resilience of pastoralist livelihoods; facilitate an enabling environment for pastoralism; enhance knowledge generation</td>
<td>Restoration and strengthening of cultural norms and practices of rangeland management</td>
</tr>
</tbody>
</table>
At the end of the workshop each participant was asked to write a single statement about the primary learning they had derived from the RAPTA exercise. A range of answers were given, and the following are examples:

“It is very important to know the vicious circle of problems, direct/indirect causes to address both indirect/direct impacts and end up with activities to implement and right interventions”

“Need to prioritise the activities, but we also need to consider the uncertainty of futures and possible risk – especially for infrastructure or activity with higher risk. Need to have enough information, consultation, meetings to minimise risk and optimise higher impact to meet the goal”

“My analytical and critical skills have deeply been enhanced and strengthened”

“I learned a systems assessment and the feedback loops which determines what priority interventions to take”

“RAPTA is like mathematics – with a formula, systemic way of doing things (system assessment) and a way of checking (feedback loops). The equation gets completed when you are able to point out where you should begin your intervention”

“I can work in a different context, even if I don’t have expertise in one area/issue”

“I think in a different way”

“RAPTA could be easy to use with communities – flexible methodology”

“Prioritise interventions/sequence activities with keeping in mind uncertainty and changes in conditions”

“Very good training with logical framework – I will apply it in project design – I will use the tool to train others, especially local communities”

“It really fits into the GCF standards in the sense that they were looking how the project affects the people”
1 Background

1.1 The Resilience, Adaptation Pathways and Transformation Assessment (RAPTA) framework

The world is changing at an unprecedented rate. Through globalization, local communities and the social-ecological systems that they are part of are becoming more complex, inter-connected, dynamic and unpredictable. This requires a new approach to the design and implementation of development projects. Instead of assuming simple cause-and-effect relationships, project design must understand the complex systems that they are intervening in, and allow for uncertainties in their operating environment.

With response to this challenge, in 2013 the Scientific and Technical Advisory Panel of the Global Environment Facility invited CSIRO to develop a unified approach to resilience indicators (O’Connell et al. 2016), which evolved into the Resilience, Adaptation Pathways and Transformation Assessment framework (RAPTA). RAPTA seeks to apply existing principles of systems, resilience, transformation, adaptation pathways and learning to the scoping, design and implementation of large development programs (O’Connell et al. 2016). While many of these concepts are well-established, they have not been applied within a single framework, or as a cohesive ‘toolbox’, to intentionally intervene in complex systems to achieve sustainability goals. RAPTA consists of seven components (Figure 1):

1. **Scoping**: A standard component of project development that summarises the purpose and nature of the project, and might involve a ‘light pass’ of RAPTA.

2. **Engagement and Governance**: Stakeholder engagement seeks to develop shared understanding of the many perspectives of problems and solutions. This component defines the roles, responsibilities and accountabilities of stakeholders involved in project design, implementation and governance.

3. **Theory of Change**: A Theory of Change is a key activity which outlines the assumed linkages between project goals, impacts, outcomes, outputs and activities. It underpins Monitoring and Assessment (M&A) and project evaluation.

4. **System Description**: Drawing from stakeholders’ diverse perspectives, this component produces an understanding of the features and characteristics of the system concerned.

5. **System Assessment**: This component identifies key dynamics and feedback loops in the system, its potential alternative states, and opportunities for adaptation or transformation.

6. **Options and Pathways**: The intervention options are identified and arranged into a provisional order for implementation which allows for future uncertainty. This forms an implementation plan which can be actively updated and adaptively managed over time through the Learning component.

7. **Learning**: This component encompasses M&A and connects all other components. Results of M&A inform adaptive management and ongoing testing of the Theory of Change. The engagement of stakeholders in Learning is essential to enhance self-assessment, awareness of their roles and their capacity to influence future action.
Following this order is not essential: users should choose a sequence that best suits their project. Each project is itself a complex system, and requires a flexibility to learn and adapt in a sequence that best serves its goals. Equally, different tools can be applied from the toolbox to suit the context and time available. The key is that stakeholders are engaged to take a systems view of the problems they are aiming to tackle, within an adaptive learning approach.

Figure 1. The RAPTA framework and components, inputs, outcomes and potential meta-indicators to assess a RAPTA process’s effectiveness (from O’Connell et al. 2016).

1.2 Indigenous People’s Green Climate Fund concept notes

RAPTA is being tested and refined by CSIRO and its partners through various development program planning activities. In this case, CSIRO was invited by the United Nations Development Program’s (UNDP) Climate Change Adaptation Unit, Bangkok, to assist in the design of concept notes by Indigenous People’s representatives for submission to the Green Climate Fund (GCF). On the 7th and part of 8th February 2017, James Butler from CSIRO Land and Water joined a planning workshop which included 20 representatives of Indigenous organisations, three UNDP and five consultancy participants. On 6th February, the Indigenous representatives had begun designing their preliminary GCF concept notes, and presented these for discussion to the UNDP.
Nine Indigenous organisations were represented, from Asia, Africa and South America:

- Center for Research and Development in Upland Areas (CERDA), Vietnam
- Center for Indigenous Peoples Research and Development (CIPRED), Nepal
- Indigenous Peoples’ International Centre for Policy Research and Education (Tebtebba), Philippines
- Institut Dayakologi, Indonesia
- Indigenous Livelihood Enhancement Partners (ILEPA), Kenya
- Lelewal Foundation, Cameroon
- Center for Indigenous Peoples’ Autonomy and Development (CADPI), Nicaragua
- Federation for the Self-determination of Indigenous Peoples, Paraguay
- Center for Indigenous Peoples’ Cultures, Peru

1.3 Case studies

To illustrate RAPTA tools and processes, it was decided to focus on four case studies. These were partly determined by the presence of participants who had an in-depth knowledge of the regions concerned. The case studies were:

- Vietnam: The Tay, Nung, Hmong San, Diu, Dzao, San Chi, Caolan, Hoa and Kinh ethnic groups from Thai Nguyen Province
- Nepal: Gorung, Tamang, Magar and Dura ethnic groups in the Lamjung Region
- Nicaragua: Miskitu ethnic group from Haulover, Indigenous Territory of Prinzu Awal Un
- Kenya: Maasai ethnic group from Narok and Kajiado Counties
1.4 RAPTA components

Due to the limited time available (1 ½ days), and in order to inform the development of the GCF concept notes, it was decided to focus on three RAPTA components: System Description, System Assessment, and Options and Pathways. The Systems Description would encourage participants to conceptualise the case studies as systems. The System Assessment was designed to focus on the key linkages amongst the systems, and intervention points that could achieve transformational change. This would assist participants to prioritise and justify interventions in these terms in their GCF proposals. Finally, the Options and Pathways would encourage participants to design the implementation of their proposals in the context of future uncertainty and rapid change. While not comprehensive, the participatory exercises were intended to illustrate some of the tools applied in RAPTA, build the capacity of the participants to use these in their own work, and support the development of the GCF proposals by CERDA (Vietnam), CIPRED (Nepal), CADPI (Nicaragua) and ILEPA (Kenya).
2 Workshop sessions

2.1 System Description

Prior to starting the workshop process, the participants were divided into four groups, one for each case study. Members of CERDA (Vietnam), CIPRED (Nepal), CADPI (Nicaragua) and ILEPA (Kenya) led each group’s discussion, since they had first-hand knowledge of the case studies. These groups were joined by Indigenous representatives from the same region (e.g. the Indigenous Peoples’ International Centre for Policy Research and Education, Philippines, took part in the Vietnam case study). The UNDP staff also joined the groups, and contributed their general knowledge of climate change and development issues, rather than specific information on each case study. In this way, each group intentionally combined local, regional and external or expert knowledge and perspectives, which is an important principle for conducting RAPTA.

The System Description session was allocated 1 hour. Each group was asked to describe the following aspects of their case study:

- The location and geography
- The local ethnic groups concerned
- The history of its people and environment
- Relevant cultural and political dynamics, and influences from outside or within the location
- The key issues and drivers affecting development in the location

The intention was to encourage participants to consider the characteristics and dynamics of their case study, and present this as a story. In this case, the tool we applied was based on Participatory Systemic Inquiry, which is defined as “learning and deliberation which involves multiple stakeholders in generating deep insights into the dynamics of the systems that they are trying to change” (Burns 2012, p. 88). The ‘system’ concerned is the web of causal relationships between issues that stakeholders are concerned about, and embedded within. By considering issues (e.g. poverty), dynamics (e.g. historical events which have determined current issues), and cross-scale linkages (e.g. national government policies driving local outcomes), participants began to take a systems view of their case study.

2.2 System Assessment

The second session, System Assessment, was allocated a total of 4 hours, and divided into two parts. The first part was allocated 1 hour, when groups discussed and listed the key development issues in each case study, and then ranked them in terms of importance. The aim of this process was to identify the major drivers or barriers to development within the system concerned.

The second part was allocated 3 hours, and involved groups conducting a ‘causal loop analysis’ for the highest-ranked issue in their case study on a large piece of flipchart paper. A causal loop analysis breaks down a problem from a systems perspective, in order to expose the causal linkages and pinpoint key intervention points needed to change the system. In this case, the tool was one modified by Butler et al. (2015) from CIFOR and SEI (2009). The first step requires participants to consider the ‘downstream’ direct and indirect impacts of the issue and their linkages. This is followed by an investigation of the ‘upstream’ direct and indirect causes, and their linkages. Next, possible feedback loops between impacts and causes are considered. These are differentiated as positive, which amplify the effects of impacts on causes, and negative, which dampen these effects. In the final step, interventions are designed to intervene in the ‘vicious cycles’ created by the feedback loops, which exacerbate and maintain the issue concerned (Figure 2). These interventions are also ranked by importance.
**Figure 2.** The four steps of the causal loop analysis.

From a RAPTA perspective, the aim of this exercise is to identify the underlying ‘controlling variables’ and feedback loops which maintain a system in a fixed state, and often prevent it from being changed to a more desirable state. In a causal loop analysis, these are likely to be the indirect causes of the key issue being assessed. The interventions which tackle the indirect causes, and break the vicious cycles caused by the feedback loops, may therefore be ‘transformational’. In this workshop, due to a lack of time, only the most important issue was addressed. However, as illustrated by the case studies, many of the issues identified by groups were inherently linked, and were therefore captured by the analysis of the primary issue.

In a full RAPTA exercise the System Assessment component would explore alternative system states, and a vision of what a desired system would look like. It would also identify thresholds in the relationships between controlling variables, where, if breached, rapid change will ensue. These models of conceptual understanding would then be tested and/or informed by data and evidence – but there was insufficient time in this workshop.

### 2.3 Options and Pathways

In this session each group was asked to design an ‘implementation pathway’ for the interventions listed in their causal loop diagram. The session consisted of two steps which were carried out partially overnight as ‘homework’, and then with 1 hour in the second day. First, a Theory of Change was created on a large sheet of paper, which worked back from the expected goal of the interventions (e.g. reduced coastal erosion) to their impacts, outcomes, outputs and activities. The linkages between each, and the assumptions of cause and effect, were highlighted to show ‘impact pathways’. Second, the activities were prioritised and sequenced to allow for future uncertainty, whereby ‘no regrets’ activities were carried out first, and more risky or irreversible activities were delayed. From a RAPTA perspective, this sequencing of activities in the implementation pathway allowed flexibility to be built into the project design, and to minimise the risk of introducing an activity which was potentially mal-adaptive.
3 Vietnam case study

3.1 System Description

Members of CERDA led the discussion and presentation of the system description. The focus of this case study was the Tay, Nung, Hmong San, Diu, Dzao, San Chi, Caolan, Hoa and Kinh ethnic groups from Thai Nguyen Province, which is a mountainous area in northern and central Vietnam. The communities are the poorest and most vulnerable groups in Vietnam. Recently, the target communities have been suffering from the impacts of climate change and uncertain livelihoods, and despite government support they have not been able to overcome their problems. Negative impacts of climate change include changeable weather, damaging extremes of hot and cold, and unseasonal rainfall.

Forest degradation and deforestation is also impacting the communities’ livelihoods, since water generated from the native forests is declining, and forest products (i.e. timber and non-timber forest products) have been exhausted. As a result they have to invest more in agricultural production, which depends on water availability. As a consequence almost all households must borrow money from government banks, and only generate sufficient income to pay back the interest rather than the loan.

In 2012, Vietnam had 13.8 million ha of forests categorized into special use forest, protection forest and production forest. The Management Board of Protected Forest (MBPF) and State Forests own 30% of the forest area, while 16% is unallocated and remains under the management of the Communist Peoples Committee (CPC) through local authorities. Forest under the management of MBFP and the temporary management of CPC is degraded and deforested because it lacks the effective involvement of local communities who live near and depend on the forests. The Forest Protection and Development Plan for 2011-2020 states that management boards of special use and protection forests should initiate co-management mechanisms with local communities to share responsibilities for forest protection, development and mutual benefits. Ethnic minorities with traditional knowledge and customary governance can make significant contributions to the prevention of deforestation, and hence contribute to both climate mitigation and adaptation.

With the support from a project conducted by CERDA, the case study communities have been allocated public forest lands, and therefore have the use rights for 50 years. The CERDA project is also building capacity (technical, legal, governance and management), and promoting the institutional development of the target communities which ensures that they have legal entities and are able to function as the forest owners. They are also adapting to and mitigating the impacts of climate change by protecting the natural forest through collective action. After 2 years of protection, the natural forest is already providing better water supplies for crops, allowing diversification out of agriculture and reduced incidence of landslides and flooding. Training in business management has also enabled communities to earn more income from forest products, including REDD+ schemes.
3.2 System Assessment

The case study group identified and ranked the following key issues:

1. Unstable agricultural production
2. Poor community access to forest land and resources
3. Limited market access for local produce
4. Limited community access and influence on state policies
5. Gender inequality
6. Limited community power in decision-making through poor participation
7. Poor community access to public information and technology
8. Declining respect for traditional knowledge

The group’s causal loop analysis focussed on the primary issue, unstable agricultural production (Figure 3). Notably, many of the other issues listed emerged as direct or indirect causes, with the exception of market access for local produce (although this was addressed by the interventions), gender inequality and declining respect for traditional knowledge. There were four direct impacts: abandonment of agricultural land, less food, unstable and less income, and increased agricultural inputs. This led to illegal logging, urban migration, poverty, and debt burdens to banks and black market lenders, and ultimately children with motherless families. Direct causes were extreme weather events and reduced natural water supplies from the forests. Indirect causes were conversion of natural forest, forest degradation and illegal logging, which in turn were driven by improper land use planning and policy, and limited community participation and access to forests. Two positive feedback loops were identified. First, illegal logging exacerbated the reduction in water supplies from the forest. Second, increasing poverty further reduced community participation in forest planning.

The interventions were: 1. Allocation of public forest lands to local ethnic groups to be managed under successful traditional practices through co-management with government; 2. Achieving legal status of communities; 3. Capacity-building for communities and state agencies; 4. Alternative income generation activities (e.g. organic produce, new markets). These all aimed to tackle the vicious cycles caused by the feedback loops, and the indirect causes of illegal logging and limited community access to forests, plus weak land policy enforcement and low community participation in forest management.
Figure 3. The causal loop analysis for the primary issue in the Vietnam case study, unstable agricultural production. Interventions (stars) were: 1. Allocation of public forest lands to local ethnic groups to be managed under successful traditional practices through co-management with government; 2. Achieving legal status of communities; 3. Capacity-building for communities and state agencies; 4. Alternative income generation activities (e.g. organic produce, new markets).
3.3 Options and Pathways

In this session the group designed an 'implementation pathway' for the most important intervention: Allocation of public forest lands to local ethnic groups to be managed under successful traditional practices through co-management with government. Activities were sequenced over time to follow a logical chain, but also to avoid committing to actions which might prove maladaptive or a waste of resources if sudden shocks were to occur (Figure 4). For example, the group recognised that establishing Free and Prior Informed Consent with target communities was essential before certificates of ownership could be issued. However, some engagement with government was necessary early in the process, since without their approval further progress was futile.

The Vietnam case study group conducting their casual loop analysis for unstable agricultural production (UNDP)
Figure 4. The implementation pathway for the Vietnam case study’s most important intervention, Allocation of public forest lands to local ethnic groups to be managed under successful traditional practices through co-management with government. Activities are sequenced over time to maximise flexibility under future uncertainty.
4 Nepal case study

4.1 System Description

Members of CIPRED led the discussion and presentation of the system description. The focus of this case study was the Gorung, Tamang, Magar and Dura ethnic groups in the Lamjung Region of Nepal, which lies in the middle of the country and spans tropical to trans-Himalayan ecosystems. Indigenous peoples comprise 35% of the total population of Nepal, and they have a close relationship with forests and natural resources. Forests underpin their livelihoods, and their cultural, traditional and spiritual values. Although the Government of Nepal has recognized 59 Indigenous groups and voted for the United Nations Declaration on the Rights of Indigenous Peoples, there have been no initiatives by the government to address Indigenous rights and to support the continued practice and protection of their traditional knowledge to manage forests, ecosystems and biodiversity. Consequently many government policies, particularly forest regulations, climate change policies and programs are not in line with their international obligations and agreements.

The impacts of climate change are highly visible amongst Indigenous communities in Nepal, who have depended upon subsistence farming and natural resources for generations. Their water sources are drying up and rainfall patterns are changing, resulting in longer dry seasons and intense rainfall. Snow and glacier melt is accelerating, causing flooding and landslides. Indigenous peoples have been protecting and managing forests, water resources, ecosystems and biodiversity, and their traditional knowledge and cultural practices could contribute to the sustainable management of natural resources. However, they require support to apply these skills, and also to build their own resilience to climate change.

For the Magar and Dura ethnic groups, climate change is having negative impacts on their agricultural production and animal husbandry. Also, by managing native forests using traditional knowledge, they have protected water resources both for drinking water and farming, not only for their communities but also for the neighbouring villages. Due to the lengthening dry season and forest fire, water sources are declining, and highly endangered species are disappearing from the forests.

CIPRED has been working with Dura communities in Sindhure and Neta Village Development Committees in Lamjung District to protect more than 1000 ha of forest. CIPRED has worked both at local and national levels to coordinate activities with concerned government agencies, such as the Ministry of Forest and Soil Conservation and the Ministry of Environment, Science and Technology. More recently CIPRED has been developing a program for emissions reductions in coordination with the Nepal Federation of Indigenous Nationalities, Federation of Community Forestry Users’ Group, Rastria Dalit Network and others. As a result, government agencies have committed support for Indigenous peoples to ensure their rights for the sustainable management of forests and livelihoods, moving towards a policy for Indigenous Peoples’ Sustainable Self-determined Development.
4.2 System Assessment

The case study group identified and ranked the following 16 key issues:

1. Water scarcity
2. Forest fires
3. Landslides and soil erosion
4. Recognition of landownership rights for Indigenous peoples
5. Changes in seasons and weather patterns
6. Changes in cropping patterns
7. Urban migration
8. Low level of women's participation in decision-making
9. Lack of native species' seed
10. Food insecurity
11. Illegal logging
12. Corruption in local and national government
13. Lack of transparency in access to funding for Indigenous peoples and women
14. Limited market access for sale of local produce
15. Lack of shelter homes for natural disasters
16. Lack of road and electricity infrastructure

The group's causal loop analysis focussed on the primary issue, water scarcity (Figure 5). Several of the other issues listed emerged as direct or indirect causes and impacts, with the exception of landslides and soil erosion, women's participation in decision-making, market access for local produce, lack of transparency for funding, shelter homes and road and electricity infrastructure.
There were five direct impacts: low agricultural production, abandonment of agricultural land, decreasing drinking water supplies, dry crops and vegetation, and conflict over water distribution. This led to food insecurity, urban migration, sanitation and animal husbandry problems, forest fires and social disunity and disharmony. In addition, food insecurity encouraged urban migration. Direct causes were deforestation, introduction of water-intensive crops, inappropriate forestry policies, no recognition of traditional governance, and changes in cropping patterns and the use of inorganic inputs. Indirect causes were illegal logging, which was fuelled by corruption, declining native species and vegetation, conflicting watershed and forest policies, and temperature increases and longer dry seasons caused by climate change.

Three positive feedback loops were identified. First, food insecurity was driving changes in cropping patterns and the use of inorganic inputs. Second, forest fires were exacerbating increasing temperatures and longer dry seasons. Third, forest fires were also accelerating the decline in native vegetation species.

The three interventions identified were: 1. Strengthen traditional knowledge and practice in natural resource management and land use; 2. Introduce organic farming and climate resilient crops; 3. Reforestation using native species. The first two targeted the linked indirect and direct causes of water scarcity, temperature increases and longer dry seasons caused by climate change and resulting changes in cropping patterns and the use of inorganic inputs. The third tackled the vicious cycle caused by forest fires accelerating the decline in native vegetation.
Figure 5. The causal loop analysis for the primary issue in the Nepal case study, water scarcity. Interventions (stars) were: 1. Strengthen traditional knowledge and practice in natural resource management and land use; 2. Introduce organic farming and climate resilient crops; 3. Reforestation using native species.
4.3 Options and Pathways

In this session the group designed an implementation pathway for the most important intervention, *Strengthen traditional knowledge and practice in natural resource management and land use*. First, the group developed their Theory of Change, which had the ultimate goal of reducing water scarcity (Figure 6). This showed three impact pathways within the Theory of Change: one related to policy advocacy and lobbying, a second related to re-planting of native species and reducing fire for ecosystem health, and a third related to restoration of water sources and rainwater harvesting. Next, they sequenced activities from the Theory of Change over 5 years to follow a logical chain, but also to avoid committing to actions which might prove mal-adaptive or a waste of resources if sudden shocks were to occur (Figure 7). For example, the group recognised that establishing rainwater storage and rainwater harvesting was only feasible in Years 3 and 4 after foundational research had been completed in Year 1.

The Nepal case study’s casual loop analysis for water scarcity (UNDP)
Figure 6. The Theory of Change for the Nepal case study’s most important intervention, *Strengthen traditional knowledge and practice in natural resource management and land use*, with the goal of reducing water scarcity. There were three ‘impact pathways’: policy advocacy and lobbying (purple arrows), re-planting of native species and reducing fire for ecosystem health (green arrows), and restoration of water sources and rainwater harvesting (orange arrows).
Figure 7. The implementation pathway for activities in the Nepal case study’s most important intervention, *Strengthen traditional knowledge and practice in natural resource management and land use*, with the goal of reducing water scarcity. Activities are sequenced over time to maximise flexibility under future uncertainty.
5 Nicaragua case study

5.1 System Description

Members of CADPI led the discussion and presentation of the system description. The focus of this case study was the Miskitu ethnic group from Haulover, Indigenous Territory of Prinzu Awal Un, located on the Caribbean seaboard of Nicaragua (Figure 8). This region has the highest rates of poverty in the country, with low levels of education and health services. Land is owned collectively within an Indigenous Territory, which is governed by a board of community members. Communities have a model of self-determination based on national laws. Nationally, 33% of the country’s area is demarcated and titled in the name of the Indigenous communities.

The Miskitu community’s livelihoods are based on fisheries, but stocks are being depleted due to overfishing by industrial fisheries. For example, coastal shrimp fishery catches have dropped by 42% between 2003 and 2014. Lobsters, queen snails and sea cucumbers are the most valuable marine resources. Agriculture and the extraction of pine wood are other important economic activities for the community. Climate change impacts are also evident, with coastal erosion caused by sea level rise, and extended dry seasons which encourage fires in the surrounding pine savanna. Extreme rainfall events and flooding are also becoming more frequent.

CADPI is an Indigenous community organization which supports the two ethnic groups in the Indigenous Territory of Prinzu Awal Un: the Miskitu and Mayangna. At the community level CAPDI provides training on climate change issues, community reforestation, Indigenous TV and radio communication, agricultural production with a focus on food security as a form of adaptation to climate change, wood-burning stoves, and supporting territorial governance. For example, CAPDI has built community maps in high relief (3D) to assist community natural resource and livelihood planning processes. CAPDI have also supported the traditional use of pine savannas, mangroves and coral cays, plus promoting the role of women in fisheries. CAPDI also acts as a broker for communities in discussions with the national government on fishery, climate change and governance issues.
Figure 8. Haulover (circled), located on the Caribbean seaboard of Nicaragua

A coastal community in Haulover, Nicaragua (CADPI)
5.2 System Assessment

The case study group identified and ranked the following key issues:

1. Coastal erosion from sea level rise, and resulting loss of soil and vegetation
2. Increasing salinity in freshwater wells, affecting access to water
3. Low state investment in health, education, security and other basic services
4. Depletion of mangroves due to harvesting for firewood
5. Depletion of natural resources due to savanna fires and flooding
6. Gastro-intestinal disease
7. Disabilities amongst divers
8. Social impacts of the narcotic economy

The group’s causal loop analysis focussed on the primary issue, coastal erosion (Figure 9). As for the other case studies, many of the other issues listed emerged as direct or indirect causes and impacts, but in this case with the exception of disabilities amongst divers and the social impacts of the narcotic economy.

There were three direct impacts: loss of vegetation, loss of soil and land, and salinization of freshwater wells. This led to a reduction in fish stocks and biodiversity, sedimentation, declining agriculture and linked food security, less land for housing, gastro-intestinal diseases, and water scarcity. These led also to a lack of job opportunities and urban migration, plus social disunity and conflict. Direct causes were lack of awareness of climate change amongst the community, erosive waves, flooding, deforestation and sand extraction. Indirect causes were low levels of education amongst the community, sea level rise, more intense hurricanes, weak Indigenous territorial institutions and linked intensive extractive practices, poverty and the need for cash.

Two positive feedback loops were identified. First, the depletion of fish stocks was promoting intensification of extractive practices, and particularly sand extraction and deforestation. Second, a lack of job opportunities for the local community was driving poverty and a need for cash, which in turn was causing sand extraction and deforestation.

The five interventions identified were: 1. Strengthen natural resource management norms; 2. Enforce traditional regulations; 3. Income generation activities and fishery diversification; 4. Reforestation, and 5. Coastal protection. The first four tackled the feedback loop and interactions between weak Indigenous territorial institutions and intensive extractive practices, poverty and the need for cash, and deforestation and sand extraction. The fourth was a direct response to sea level rise and resultant erosive waves.

5.3 Options and Pathways

In this session the group designed an implementation pathway for their interventions. The group developed their Theory of Change, which had the ultimate goal of reducing coastal erosion (Figure 10). This showed five 'impact pathways' within the Theory of Change: one relating to community and stakeholder mobilisation, a second for mobilising and recording traditional knowledge, a third for reforestation of mangroves, coconuts and pine forest, a fourth for rainwater harvesting, and a fifth for coastal protection. Rather than draw a separate implementation pathway, the group ordered the activities into a sequence that would provide necessary social and institutional preparation, and also to maximise flexibility under future uncertainty (Figure 10). The first key step was to establish Free and Prior Informed Consent from the community, followed by organising community sectors and engaging with external stakeholders. The final, most risky activity, constructing artificial reefs and coastal protection, was the last to be implemented due to the significant level of irreversibility and 'sunk' costs.
Figure 9. The causal loop analysis for the primary issue in the Nicaragua case study, coastal erosion. Interventions (stars) were: 1. Strengthen natural resource management norms; 2. Enforce traditional regulations; 3. Income generation activities and fishery diversification; 4. Reforestation; 5. Coastal protection
Figure 10. The Theory of Change for the Nicaragua case study’s interventions, with the goal of reducing coastal erosion. There were five ‘impact pathways’: community and stakeholder mobilisation (purple arrows), traditional knowledge (blue arrows), reforestation (green arrows), rainwater harvesting (brown arrows), and coastal protection (orange arrows). Activities are ordered by number into an implementation pathway, whereby they have been sequenced over time to maximise flexibility under future uncertainty.
The Nicaragua case study group’s casual loop analysis for coastal erosion (UNDP)
6 Kenya case study

6.1 System Description

Members of ILEPA led the discussion and presentation of the system description. The focus of this case study was the Maasai ethnic group from Narok and Kajiado Counties of Kenya. Pastoralist communities, including the Maasai, have been classified by international and regional mechanisms as Indigenous Peoples. However, indicators for life expectancy, school enrolment and the Human Development Index are far lower and poverty levels far higher amongst pastoralists, with poverty levels averaging 70% compared to a national average of 47%. Yet Kenya’s national livestock herd produces up to 12% of the country’s GDP, and Kenya’s dry lands carry over 60% of the country’s livestock population. The beef sector is ranked as one of Kenya’s fastest rising economic sectors with meat consumption increasing by nearly 10% in the past 6 years, with steady growth projected over the coming years. Policy and institutional bottlenecks are key constraints to the development and sustainable management of livestock in Kenya, coupled with poor road conditions and high transport costs. Hence there is great potential for some of the poorest Indigenous pastoralist communities in Kenya to develop through improved livestock management, but there are significant social and economic impediments to realising this.

Climate change presents a significant and growing challenge to achieving sustainable rangeland management and the human development of Indigenous pastoralists. Approximately 85% of Kenya’s land area is classified as arid and semi-arid. In many areas, rainfall has become irregular and unpredictable, extreme and harsh weather is now the norm, and some regions experience frequent droughts during the long rainy season while others experience severe floods during the short rainy season. The 2010-2011 Horn of Africa drought crisis demonstrated how vulnerable Kenya is to climate change, and this is compounded by local environmental degradation, primarily caused by habitat loss and conversion, pollution, deforestation and overgrazing. Pastoralist areas are particularly vulnerable to the impacts of climate change. Extended periods of drought erode livelihood opportunities and community resilience, leading to undesirable coping strategies that damage the environment and impair household nutritional status, further undermining long term food security.

Sustainable pastoralism is a multi-functional livestock management system which can provide ecosystem services that extend well beyond the boundaries of the rangelands, while maintaining soil fertility and soil carbon, water regulation, pest and disease regulation, biodiversity conservation and fire management. Rangelands have a potential to sequester between 200 and 500 kg of carbon per ha annually, playing a key role in climate change mitigation. At the heart of the environmental sustainability of pastoralism is adaptive management based on the Maasai’s local knowledge, culture and institutions. However, pastoralists face manifold pressures on their communities and lifestyle. These include drought and other disasters brought about by natural hazards and advancing climate change, localised and cross-border conflict and violence, cattle rustling, cross-border incursions, the exploitation of natural resources and shrinking areas of land to range over. When adaptive migration is no longer possible and coping capacities are largely exhausted, the result is forced displacement. The loss of traditional grazing land to privatisation and land sales also increases the risk of conflict when droughts occur, because it makes dwindling resources scarcer and interferes with migration routes both within and across international borders.

ILEPA aims to enhance environmental conservation and livelihood diversification for pastoralist Indigenous communities. ILEPA is an active broker at the community, county, national and international level, and has cultivated a good working relationship with actors across these levels. Conservation, climate change adaptation and Indigenous knowledge systems are ILEPA’s key strategic focii. ILEPA is founder member and serves as one of the technical advisors to the Indigenous Peoples National Steering Committee on Climate Change and REDD+. 
Maasai herder and livestock in Narok and Kajiado Counties, Kenya (ILEPA)

The Kenya case study group discussing the key issues (UNDP)
6.2 System Assessment

The case study group identified and ranked the following 10 key issues:

1. Drought and famine, plus floods
2. Weak policies and laws relating to pastoral practices
3. Land fragmentation
4. Land-grabbing and selling
5. Inadequate basic social services (e.g. health centres, veterinary services)
6. Weak political voice and representation
7. Poor market access
8. Weak governance systems in county and national government
9. Disregard by mainstream government for Indigenous knowledge systems and practices
10. Natural resource-related conflict and insecurity

The group's causal loop analysis focussed on the primary issue, famine (Figure 11). As for the other case studies, many of the other issues listed emerged as direct or indirect causes and impacts, but in this case with the exception of poor market access.

There were six direct impacts: lack of water, migration, loss of cattle, weakened cattle, loss of life and food insecurity. This led to a complex web of linkages to indirect impacts: disruption of social order, children dropping out of school, social conflict over limited resources, increased human-wildlife conflict, increased dependency on poor state services, less income and a particular impact on women. Direct causes were drought, restrictions on cross-border movements of people and cattle, limited livelihood opportunities, constrained access to water, and poor pasture management. There were overlapping and multiple links to indirect causes: climate change, land fragmentation, land grabbing and sale, weak policies and laws, a disregard for Indigenous knowledge, and the breakdown of cultural norms.

Two positive feedback loops were identified. First, the disruption of social order resulting from famine drives further breakdown of cultural norms, which exacerbates several direct causes of famine, causing a vicious cycle. Second, migration in response to famine encourages land grabbing and land sale, which further limits livelihood opportunities, access to water and poor rangeland management.

The four interventions identified were: 1. Restore and strengthen cultural norms and Indigenous knowledge; 2. Policy advocacy; 3. Drought early warning system; 4. Enhanced access to livestock markets and veterinary services. The first, priority intervention addressed the feedback loop and interactions between the disruption of social order resulting from famine and the breakdown of cultural norms. The second addressed the feedback loop involving migration, weak government policies and laws which drive land grabbing and sale, and resulting restrictions on cross-border movements, limited livelihood opportunities, constrained access to water and poor pasture management. The third tackled the increasing incidence of drought, and the fourth aimed to improve livelihood opportunities.

6.3 Options and Pathways

In this session the group designed an implementation pathway for their interventions. First, the group developed their Theory of Change, which had the ultimate goal of reducing the incidence of famine (Figure 12). This showed four ‘impact pathways’ within the Theory of Change: one relating to improving pasture, water and livestock routes; a second to develop early warning systems and disaster preparedness; a third to strengthen Indigenous knowledge and governance of natural resource management, including policy advocacy, and a fourth for enhancing access to livestock markets and veterinary services. The group then ordered the activities into a 5 year implementation pathway that would first provide necessary preparation, and then implement infrastructural and policy change (Table 1).
Figure 11. The causal loop analysis for the primary issue in the Kenya case study, famine. Interventions (stars) were: 1. *Restore and strengthen cultural norms and Indigenous knowledge*; 2. *Policy advocacy*; 3. *Drought early warning system*; 4. *Enhanced access to livestock markets and veterinary services*. 
Figure 12. The Theory of Change for the Kenya case study's five interventions, with the goal of reducing the incidence of famine. There were four ‘impact pathways’: improving pasture, water and livestock routes (purple arrow); developing early warning systems and disaster preparedness (blue arrow); strengthening Indigenous knowledge and governance of natural resource management and policy advocacy (green arrow); enhancing access to livestock markets and veterinary services (orange arrow).
**Table 1.** The 5 year implementation pathway for the Kenya case study, with the goal of reducing the incidence of famine

<table>
<thead>
<tr>
<th>Activities</th>
<th>Project duration (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scoping research</td>
<td></td>
</tr>
<tr>
<td>2. Research, document and disseminate Indigenous knowledge systems and customary governance related to natural resource management through a knowledge-sharing platform</td>
<td></td>
</tr>
<tr>
<td>3. Build pastoralists' capacities and put in place pasture management and storage infrastructure</td>
<td></td>
</tr>
<tr>
<td>4. Train pastoralists in early warning system (EWS) technology</td>
<td></td>
</tr>
<tr>
<td>5. Create awareness and promote implementation of policy issues related to pastoralism and land tenure systems and accountability</td>
<td></td>
</tr>
<tr>
<td>6. Establish the EWS infrastructure</td>
<td></td>
</tr>
<tr>
<td>7. Build water harvesting infrastructure including surface water run-off dams, boreholes, roof-water</td>
<td></td>
</tr>
<tr>
<td>8. Delineate livestock routes to pasture, water-points and saltlicks</td>
<td></td>
</tr>
<tr>
<td>9. Train pastoralists on livestock market dynamics and establish the infrastructure to enhance access to livestock markets and veterinary</td>
<td></td>
</tr>
<tr>
<td>10. Establish dialogue platforms to build experience and knowledge-sharing between institutions related to pastoral systems</td>
<td></td>
</tr>
<tr>
<td>11. Enhance regional cooperation on cross-border pasture access</td>
<td></td>
</tr>
</tbody>
</table>


7 Conclusions and evaluation

7.1 Applying RAPTA to GCF

Prior to the RAPTA workshop sessions the Indigenous Peoples’ representatives had drafted concept notes for the GCF. These aimed to meet the GCF’s six investment criteria:

1. Climate impact potential (*Potential to achieve the GCF’s objectives and results*)
2. Paradigm shift potential (*Potential to catalyze impact beyond a one-off project or program investment*)
3. Sustainable development potential (*Potential to provide wider development co-benefits*)
4. Needs of recipient (*Vulnerability to climate change and financing needs of the recipients*)
5. Country ownership (*Beneficiary country ownership of project or program and capacity to implement the proposed activities*)
6. Effectiveness and efficiency (*Economic and financial soundness and effectiveness of the proposed activities*)

The GCF naturally places primacy on climate change issues. However, RAPTA tools enable a systems analysis of the linkages between climate and development issues, and potentially transformational interventions. As such, the System Assessment exercises helped the case studies to investigate the GCF’s second and third criteria in more depth: paradigm shift potential, and sustainable development potential.

A comparison of the priority RAPTA interventions identified for the four case studies with the initial GCF concept notes developed prior to the workshop showed some changes (Table 2). For Vietnam and Nepal the GCF and RAPTA priorities were similar, with the management of public forests and strengthening traditional forest management, respectively. For Nicaragua the emphasis altered from territorial governance to strengthening coastal natural resource management, and in Kenya a similar shift was evident for pastoralism. In all case studies the RAPTA interventions were more specific because they targeted the underlying direct and indirect causes of climate and development problems, their complex linkages and related vicious cycles. As a result, of the 16 interventions in the four case studies, only three specifically addressed climate change issues, and none were priorities. These were: introduce organic farming and climate resilient crops (Nepal, 2nd priority); coastal protection from erosive waves (Nicaragua, 5th priority), and drought early warning systems in Kenya (3rd priority).

The RAPTA analyses now provide the case studies’ representatives with a clearer rationale and justification for their GCF concept notes, and a potentially transformational set of targeted interventions. The draft implementation pathways also provide a logical plan for future program activities that take into consideration future uncertainty. However, it should be noted that these are initial results, and only represent the views of the participants. To conduct a full RAPTA planning exercise, which should include the other important components on engagement, governance and learning, a more comprehensive process is required which involves a wider range of stakeholders and their knowledge, values and goals over several days. In addition, the conceptual models of the system and the key points of intervention identified would be tested and informed by various forms of data and evidence.

This 1 ½ day exercise simply aimed to demonstrate some of the key principles of taking a systems perspective of climate and development challenges, and to provide the Indigenous Peoples’ representatives with some new project planning skills. As described in the next section, it appears that these objectives were successfully achieved. Holding an introductory workshop such as this, followed by a period in which participants could conduct more rigorous analysis testing the ideas with broader group of stakeholders, as well as drawing on relevant forms of data and evidence would be useful. Reconvening the
participants for a follow-up workshop with more focus on Options and Pathways, and Learning, would enhance the capacity building as well as the robustness of the project design itself. RAPTA does recommend a detailed analysis of costs and benefits and developing an implementation plan, and formalising a learning framework as part of the Options and Pathways module, but there was insufficient time for conducting these elements. Therefore we recommend that to develop a robust GCF project design, at least two RAPTA workshops are conducted with a few weeks in between for the data and evidence to be collated and used. This workshop shows, however, that even a light exposure to the approach can lead to project designs which aim to address systemic issues and plan more logically for desired impact.

**Table 2.** Draft GCF concept note objectives developed for the four case studies prior to the RAPTA workshop, and the priority intervention identified as a result of the RAPTA exercise.

<table>
<thead>
<tr>
<th>Case study</th>
<th>Pre-workshop concept notes</th>
<th>Priority RAPTA intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>Community ownership and co-management of forests between government and communities to sequester carbon and promote adaptation</td>
<td>Allocation of public forest lands to local ethnic groups to be managed under proven traditional practices through co-management with government</td>
</tr>
<tr>
<td>Nepal</td>
<td>Awareness raising on resilience to climate change; capacity-building of Indigenous people and their traditional knowledge and practices; alternative livelihood development; information dissemination</td>
<td>Strengthening traditional natural resource management and knowledge</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Strengthen territorial governance and livelihoods to adapt to climate change</td>
<td>Strengthen coastal natural resource management norms</td>
</tr>
<tr>
<td>Kenya</td>
<td>Enhance resilience of pastoralist livelihoods; facilitate an enabling environment for pastoralism; enhance knowledge generation</td>
<td>Restoration and strengthening of cultural norms and practices of rangeland management</td>
</tr>
</tbody>
</table>
7.2 Evaluation

At the end of the workshop each participant was asked to write a single statement about the primary learning they had derived from the RAPTA exercise. A range of answers were given:

“I learned how to isolate the direct impacts from the indirect”

“I learned there is a need to identify project risks and needs”

“The RAPTA framework is quite helpful”

“It is very important to know the vicious circle of problems, direct/indirect causes to address both indirect/direct impacts and end up with activities to implement and right interventions”

“Need to prioritise the activities, but we also need to consider the uncertainty of futures and possible risk – especially for infrastructure or activity with higher risk. Need to have enough information, consultation, meetings to minimise risk and optimise higher impact to meet the goal”

“My analytical and critical skills have deeply been enhanced and strengthened”

“The project cycle and prioritisation of the needs of society”

“I have learned key issues and how to give them priority based on the RAPTA framework”

“I have learned a systems assessment and the feedback loops which determine what priority interventions to take”

“I need to do more work on how to formulate plans in the context of climate change adaptation and mitigation”

“RAPTA is like mathematics – with a formula, systemic way of doing things (system assessment) and a way of checking (feedback loops). The equation gets completed when you are able to point out where you should begin your intervention”

“I can work in a different context, even if I don’t have expertise in one area/issue”

“I now think in a different way”

“RAPTA could be easy to use with communities – flexible methodology”

“I learned a different methodology to better structure interventions”

“Causal loop analysis to identify interventions”

“Prioritise interventions/sequence activities keeping in mind uncertainty and changes in future conditions”

“I’ve learned about finding key issues and challenges when designing a project, connecting direct and indirect impacts or causes, find out feedback loops and actions for a project to follow”

“Very good training with logical framework – I will apply it in project design – I will use the tool to train others, especially local communities”

“Prioritisation of activities through the Theory of Change”
“Prioritisation of activities – change is not easy but we must do our best”

“It really fits into the GCF standards in the sense that they were looking how the project affects the people”

“The RAPTA will give you an immediate picture of what the project will be in relation to issues – it is also systematic”

“RAPTA can be useful and can be integrated with other tools for projects (e.g. identification to design implementation)”
8 References


YOUR CSIRO

Australia is founding its future on science and innovation. Its national science agency, CSIRO, is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation.

FOR FURTHER INFORMATION

CSIRO Land and Water
Dr. James Butler
t +61 7 3833 5734
e james.butler@csiro.au