

APPENDIX E:

INTEGRATING PARTICIPATORY DISASTER RISK REDUCTION AND CLIMATE CHANGE ADAPTATION TO ENHANCE COMMUNITY

RESILIENCE IN THE PACIFIC:

CASE STUDIES FROM FIJI AND SAMOA

This report provides examples of current community based initiatives being implemented in Fiji and Samoa which focus on disaster risk reduction (DRR) and / or climate change adaptation (CCA). These projects were selected as case studies for the way in which they provide insight into how DRR and CCA are being integrated at the local level. Information for these case studies was collected in Fiji and Samoa over the months of July – September 2009. Researchers conducted meetings, semi-structured interviews, field observations and focus groups with a range of members from DRR and CCA organisations to gain insight into how these concepts are being integrated at the institutional and practical level.

Here, we present eight examples of how local communities are reducing risk and enhancing their resilience to disasters and climate change. Full details will become available over the coming months, as part of the broader research project, which will develop guidelines and recommendations for "best practice" for integrating DRR and CCA at the community level.

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Samoa Disaster Management Office Village Workshops

1. Introduction and background

The Disaster Management Office (DMO) in Samoa has begun a long series of village based workshops aiming to raise the awareness of disaster risk reduction. Given the strong and independent nature of villages, a program that identifies with this level of society was developed by the DMO to raise the awareness of disasters, and focuses on how people can go about reducing their risk to these types of events. The approach was developed some years ago, with the DMO collaborating with partner government ministries and NGOs to deliver an effective and comprehensive means to raise awareness and hopefully change behavior.

Samoa is fortunate to have a fairly long history in developing baseline information regarding natural hazards and vulnerability across the country to allow for future projects to by-pass the often time consuming task of assessing the needs of a community. For example, Coastal Infrastructure Management (CIM) Plans were conducted over the period of 1999 – 2007, and involved extensive participatory community engagement resulting in village specific plans. This has provided the means for many donors and



Fig. 1 DMO Office at Mulinuu, Apia, Samoa

government agencies to efficiently and effectively begin implementing development projects as the baseline information is available and ready to be built upon. The NDMO Village workshops are one example of this.

2. Project Partners

The Village Workshops are facilitated by the DMO. The workshops' approach also maximises the skills and expertise of other government ministries and members of the Disaster Advisory Committee (DAC). Additional groups involved in the workshops include Ministry of Health, National Health Services, Ministry of Work Transport & Infrastructure, Ministry of Women, Community & Social Development, Fire and Emergency Services Authority, Samoa Red Cross, Women in Business Development Inc.

3. Funding and resourcing

In 2008, Oxfam New Zealand funded a pilot workshop with the DMO and through the Women In Business Development Inc (WIBDI), a successful NGO in Samoa. Currently, the DMO now has funding from the World Bank, UNESCO and SOPAC. This funding will not cover the total remaining villages, with further funding required over the coming years to complete the rest.

4. Integration of DRR and CCA

Integration of DRR and CCA is relatively well advanced in Samoa especially from the government perspective as close relationships between people in government working on these two issues has lead to a streamlined and effective approach in reducing risk, whether it be from natural disasters or climate

change. Although taking a definite DRR approach, CCA is certainly not neglected in the Village Workshops, as the DMO is acutely aware of how climate change is likely to exacerbate the risks of disaster in Samoa. Therefore, climate change is part of the program and the causes of climate change are discussed in the workshops. Facilitators ensure very simple Samoan terminology is used because some phrases and words are technical. This issue of communicating technical terms in a local language is a common theme needing to be addressed in many community projects. Often there is no local translation for scientific terms, thus ways to convey the message without introducing too many new phrases is required. Having Samoan people at the forefront is a real benefit as they know how to go about this effectively.

5. Key Strengths

Village specific Disaster Management Plans: By utilising the CIM Plans and collecting village specific information in partnership with villagers themselves, the resulting plans are not only specific to the village and address local issues and concerns, they are also "owned" by the villagers. Having spent some time contributing to their development, people feel empowered to act upon the outcomes and make a difference where they can to reducing vulnerability where possible using local capacity.

Addressing DRR from a broad development approach: This is seen through the inclusion and participation of a number of government ministries and NGOs in the workshops. The approach is therefore comprehensive and presented in such a way so as to resonate with local people and address livelihood issues. In addition to this, climate change risks are addressed alongside risks associated with natural climatic variability and development.

Sharing experiences, ideas and lessons learned: The DMO Director is well aware of initiatives in DRR both in Samoa and across the region, through the Pacific Partnership Network for DRR. This provides the means to share experiences and lessons learned, both successes and challenges faced so as to improve future projects and assist others in the development and implementation elsewhere.

6. Challenges and Issues

Potential "development fatigue": This is a challenge of this and many community based initiatives. With many donors in the region, and with climate change being high on the agenda of many development partners and governments, there is the potential for a village to be approached by several different programs, all aiming to address some aspect of vulnerability. Many are in the assessment or policy development phase, resulting in some sort of plan – this project included. The Village Workshops are therefore aiming to result in a practical and useful approach, and raising the awareness of local people about reducing local risks to disasters and climate change.

Caritas Samoa's Building Disaster Response and Preparedness of Caritas Partners in the Pacific Project

1. Introduction and background

This report provides an example of a community based disaster risk reduction (DRR) project in the Pacific which is channeled through the Catholic Church network via the international organisation, Caritas. The initiative is being implemented in Samoa, Fiji, Vanuatu and Kiribati, however this case study focuses on the Samoa project only. Caritas Samoa was recently established and the DRR initiative described here is the opening project for the newly opened branch. The aim of the project is to develop awareness and understanding of DRR within the community by educating key people in the Catholic Church who will then use their influence to encourage positive and proactive responses to DRR.

2. Project Partners

Caritas International incorporates 162 member organisations in seven regions of the world, one of which is Caritas Oceania (CO). Caritas Australia is the largest member of CO and is the overall project manager for this initiative, providing not only the funding but also technical advice and assistance. Caritas Samoa was established to manage the project locally and to generally facilitate the day-to-day running of activities.

Background documents for this initiative and discussions with key stakeholders highlight the work done by other Pacific regional DRR organisations such as SOPAC, and another faith based initiative in Fiji from which experience can be gained. The Samoan Disaster Management Office (DMO) is also described as a partner for this project. The limited capacity of the DMO is mentioned, and Caritas sees themselves as filling this gap and using the strong links to community with the Catholic Church network.

3. Funding and resourcing

The source of the funds for this project comes from AusAID, with \$525,000 available in total for the four countries over four years. "In-kind" resourcing is provided by the Catholic clergy, who receive training regarding DRR activities and then pass their knowledge on to their parishioners. This is often the case with community-based projects: a key resource is the community (and key people within the community) themselves.

4. Integration of DRR and CCA

The Caritas Proposal for this initiative includes "Environment" as a cross-cutting issue, alongside Gender, Governance, Human Rights and HIV/AIDS. Within Environment, climate change is mentioned briefly as something that "is expected to have a major impact on low lying islands" (Caritas Australia, 2008: 12).

When speaking to the Caritas representatives in Samoa about the inclusion of climate change, there was the strong belief that it would be too much to educate people about DRR *and* climate change.

Thus, at this stage of the project it appears that climate change will not be explicitly addressed in the training and education aspects. This comes despite the known linkages between DRR and CCA and the similarities existing between these concepts with regard to activities to reduce vulnerability at the local level.

5. Key Strengths

Utilising existing and powerful networks: Christianity is the predominant religion in Samoa and its influence is seen in the daily lives of most Samoan people. Village priests hold considerable authority in the community, thus, utilising the strength and reach of the church in Samoa is an innovative and culturally appropriate means to pass information on to communities about DRR.



Fig. 2 Biblical approach to the Disaster Cycle

Focus on behavioural change: Much can be done in the way of reducing risk to disaster by behavioural change; alterations to daily practices that do not carry a cost but make a difference to the vulnerability of local people. Sometimes referred to as "soft solutions" as they are not associated with anything structural, behavioural change is a powerful tool for community based DRR.

Links to other projects and regional networks: There is considerable work happening in both Samoa and the Pacific region in terms of community based DRR initiatives. Learning from others experience and utilising the expertise of others working in DRR have been something that is integral to this initiative from its inception. This is certainly a strength, as project design and development can gain much from organisations such as the DMO in Samoa and Fiji.

Reinforcing good DRR practices: People of the Pacific have been exposed to disasters in the past. Events such as the 1990 and 1991 tropical cyclones and those dating back further have allowed Pacific Islanders to develop local coping mechanisms and strategies to reduce their risk to these types of events. The concepts of DRR are therefore not new, however the approach and terminology used may be. The recognition of this is a positive aspect of this project, as the approach can build upon existing knowledge to engage with people further and extend their understanding of DRR.

6. Challenges and Issues

Lack of inclusion of climate change and links to CCA: Climate change is likely to have a significant impact to the lives of people in Samoa. Given the similarities between DRR and climate change adaptation (CCA), it is somewhat disappointing that this initiative excludes mention of climate change. By incorporating the potential impacts of climate change into the program, the risk reduction activities could be more successful and collaborate with and learn from other community projects.

Challenge of community participation and commitment to change: Given the significant role of the clergy, there are legitimate concerns regarding the challenge of achieving participation from them to pass on the DRR message to their parishioners. This will be a learning experience and the approach may be adjusted over time to incorporate lessons learned.

Samoa Red Cross Community Based Health and First Aid

1. Introduction and background

The National Red Cross Society in Samoa has a relatively long history of community based development programs in operation across the Samoan islands. The current version is called the Community Based Health and First Aid (CBHFA) project, which is a holistic community program that makes special reference to disaster risk reduction (DRR) and climate change adaptation (CCA). The CBHFA program is implemented through the church network at the village level, and incorporates gender considerations with its approach by ensuring participation from both men and women, and girls and boys. Over a two week period, the project assesses the specific vulnerabilities of the village and develops a targeted response to educate people in ways to overcome and become more aware of the risks in their daily lives.



The CBHFA program utilises the Vulnerability and Capacity Assessment (VCA) tool, which was developed by the Red Cross body internationally and is applied as a means to gather information at the household level about vulnerability, particularly to disasters, and also equally about people's capacity to deal with these types of events (IFRC, 2006).

Fig.3 Samoa Red Cross Secretary General and staff member

2. Project Partners

The CBHFA works with government ministries including the Disaster Management Office (DMO) to combine efforts and deliver a holistic and well targeted response to reducing vulnerability at the community level. Ministries involved include Ministry of Natural Resources and Environment, Ministry of Agriculture and Fisheries, Ministry of Health, National Health Services and Ministry of Public Works and Infrastructure. In addition to government ministries, the CBHFA also works with non-government organisations (NGOs) such as Women In Business Development Inc (WIBDI), who work with organic farmers on developing sustainable livelihoods. Samoa Red Cross is also an active member of the Disaster Advisory Committee (DAC), allowing for partnership amongst DAC members, and member's inclusion in CBHFA implementation.

3. Funding and resourcing

The International Red Cross funds the daily expenses for the National Red Cross Society in Samoa, which extends to some of the CBHFA program costs. The Australian Red Cross funds the disaster aspects of the program while the New Zealand Red Cross funds the First Aid aspects of the program.

4. Integration of DRR and CCA

DRR and disaster preparedness and response have traditionally been part of the national Red Cross society's work, especially in Samoa where natural disasters are common. Their approach has been refined over time to result in an effective way to assess the needs of a community and also evaluate what capacity the community can build upon to enhance their own resilience to underlying risks.

The Red Cross in Samoa has also become one of the leaders in the Pacific with regard to community based CCA, given its strong history in local level DRR and existence of baseline information including the National Adaptation Plan of Action (NAPA) and Coastal Infrastructure Management (CIM) Plans. Due in part to this baseline information, Samoa was selected by the International Red Cross in 2002 to be a pilot country for the inclusion of CCA in community programs. CCA has therefore been integrated into the approach already developed for DRR, given the similarities between DRR and CCA, and since the impacts of climate change are likely to worsen the disasters that Samoan people have been dealing with for years.

5. Key Strengths

Vulnerability and Capacity Assessment (VCA): VCA is a tool developed by the Red Cross to identify exposure to risk and how to overcome vulnerability using resources available within the community (IFRC, 2006). It draws out details from family members that might go unnoticed if only village leaders had been consulted. In addition, the VCA also highlights the capacity existing in the village and also the practices that may be common and may unconsciously lead to effective reduction in risks.

Attention to gender considerations: The way in which the CBHFA Program works with the village is via the church networks and this allows the full participation of both genders as well as children and youth. If the approach was via the village mayor, women may be excluded to a degree as they would be expected to prepare food for the visitors to the village, while children and youth may be in school or also expected to assist with preparations in some way.

Holistic approach to addressing vulnerability: The CBHFA Program is holistic in its approach, which is made clear in the way DRR and CCA are addressed alongside health and diseases issues, development and building codes and any other means to address the vulnerability of the village. This is certainly a strength of the program as it allows the village to receive the full package rather than a piece meal approach to development.

Village specific: Each village has its own set of vulnerabilities and capacity, depending on location, demographics and social and cultural practices. Therefore, the way in which the CBHFA approaches each village separately, via the VCA and with the assistance of existing CIM Plans, and then constructs a training program based on the needs of the community is also a definite strength.

6. Challenges and Issues

Sustainability: Once the CBHFA Program leaves the village there is the potential for nothing more to result. VCA does provide for the identification of follow-up actions, however without dedicated people and funds to follow this up, there could be nothing more to come of the program. The linking of village people with the public services of the government does provide some hope that issues identified by the VCA will be followed through and needs will be met by these services.

WWF Coastal Resilience of Mangroves to Climate Change

1. Introduction and background

The World Wide Fund for Nature (WWF) Coastal Resilience of Mangroves to Climate Change project in Fiji forms part of a global initiative funded by the Global Environment Facility (GEF), also under implementation in East and West Africa and India. The aim of the project is to develop a "generalisable" approach to addressing coastal resilience across similar habitats (i.e. mangroves), and maintaining intact mangrove systems that support the connectivity between mangroves and coral reefs. This therefore builds resilience to sea level rise, erosion, and coral bleaching (all potential impacts of climate change) as the connections between these inter-linking ecosystems support each other. A key aspect of this project is the incorporation of WWF's Climate Witness Program, which facilitates the communication of testimonials of people who have seen, and are living with, the effects of climate change (WWF, 2008).

2. Project Partners

Project partners include the University of the South Pacific (USP), Wetlands International, SOPAC and the Wildlife Conservation Society (WCS). Government partners include the Department of Environment and the Department of Forestry. The Climate Witness Toolkit also includes a Scientific Advisory Panel who review and verify information that comes through from "Climate Witnesses". Academic staff members from USP are part of this Panel. Communities themselves also represent a significant partner in this project, since they hold the wealth of local indigenous information that is utilised to develop locally specific adaptation strategies in the face of climate change.

WWF also work with the Fiji Meteorological Office in sharing climate and weather records, and aligning historical records of temperature and rainfall with local knowledge and experiences e.g. times of poor fishing may correlate with periods of drought.

3. Funding and resourcing

This initiative is funded by the GEF and implemented by WWF Fiji. In-kind resourcing is provided by partner organisations, the Scientific Advisory Panel and communities themselves.

4. Integration of DRR and CCA

This project has a strong and explicit climate change angle as donor funding stems from the GEF, which is the financial mechanism of the United Nations Framework Convention on Climate Change (UNFCCC). In addition, the Climate Witness Program's focus is on documenting local changes in climate patterns, as seen by local people who depend upon the environment for their livelihoods. Asking the people who are most closely linked to the environment is an effective way of drawing out small but crucial and interlinking pieces of evidence that the patterns of weather and climate are changing.

Natural disasters, such as tropical cyclones, droughts and floods, will also live in the memory of many Pacific Islanders since the region experiences these events relatively frequently. The Climate Witness

Program therefore draws out disasters from people's memories and asks them to situate them in their longer life-history context. Are they occurring more frequently? Are they of the same intensity in the past? Answering these questions, using both traditional and scientific information, is the aim of the Climate Witness Project, however it may seem to fall short of DRR unless the risks associated with these events are addressed.

5. Key Strengths

Use of traditional knowledge: The Climate Witness Toolkit has its foundations in valuing local indigenous knowledge and observations of climate change and coupling this information to scientific

data. This recognises traditional knowledge and people's observations – people who are living in remote and perhaps vulnerable regions – as a valuable resource. It empowers people to continue to monitor and observe alterations in their environment, since it forms even stronger evidence that the natural systems are changing.

Inclusion of whole community and gender considerations: Through community consultations and workshops, transect walks, seasonal calendars, community monitoring and school activities, the whole community has been able to contribute to this initiative. The approach also recognises the need to hold single gender focus groups and workshops to ensure men's and women's concerns and observations are included to an equal degree. This is especially necessary in the Pacific where gender roles can lead to women being more vulnerable to climate change and disaster.



Fig. 4 Pacific women

Scaling up from local to global: The Climate Witness Program allows for local stories, observations and concerns to be voiced on the international stage. Recent high level international climate talks have allowed for "Climate Witnesses" to be included in proceedings, giving them a voice and potentially influencing global policy on climate change.

6. Challenges and Issues

Label of climate change and its possible misuse: Given the strong focus on local story telling, observations and anecdotes, there is the possibility that naturally driven changes through cycles such as El Nino Southern Oscillation (ENSO), and even human driven changes from poor development decisions, will be tagged as global climate change. The concept of climate change is known to many local people, even in remote locations, with the prevalence of radios and television. However, these sources may not give a full or accurate picture of climate change. There is therefore a danger in blaming climate change for any adverse changes to the environment over time. While climate change may indeed be the cause of altered patterns in marine and terrestrial life, it may not be the only cause. Human development has caused significant adverse changes to environments, often extending vast distances away from the initial disturbance. Care must therefore be taken in what is tagged as climate change.

Navua Local Level Risk Management

1. Introduction and background

Local Level Risk Management (LLRM) is a tool used to address risk by engaging with local organisational and institutional structures. This approach way employed in Navua, Fiji, which is an area susceptible to severe flooding with examples being recent events in 2003 and 2004. The aim of

this two year project is to build upon a previous project, which was funded by the European Union (EU) and developed an early warning system for flood. The LLRM project extends the EU funded initiative to work closely with the community, local organisations and various levels of government to reduce the area's risk to flooding. Additional tools such as the Red Cross's Vulnerability and Capacity Assessment (VCA) further allowed insight into how people in Navua could enhance their resilience in terms of natural hazards.



Fig. 5 Navua Flood Warning sign

2. Project Partners

The project is implemented by the UNDP's Pacific Centre. In addition, many of the major players in disaster risk management (DRM) in the country and region are involved in the project. This includes the Fiji Red Cross Society, with technical input from their global counterpart IFRC, SOPAC (which initiated the early warning system along with the Fiji Public Works (Hydrology Division) and Fiji Meteorological Service), the National Disaster Management Office (NDMO), TAF/OFDA for DRM training assistance and global donors such as the Global Environment Facility (GEF) and the Bureau for Crisis Prevention and Recovery (BCPR, a UNDP body) who also provide technical assistance in devising DRR strategies for implementation.

3. Funding and resourcing

Initial funds were sourced from the UNDP's BCPR who provides funding for projects focusing on DRM in the Pacific. Additional funds came from AusAID and NZAID via the UNDP core funding allocation.

4. Integration of DRR and CCA

The origins of this project lie in DRR, firstly from the EU funded flood early warning system, and then leading on to the LLRM approach which aims to reduce existing risk at the local level. Project partners also come from a DRR background (SOPAC, Red Cross, TAF/OFDA and importantly, the NDMO). Therefore, the scope and focus of the project is DRR, extending to the language and terminology used in workshops, meetings and documents, as well as the general mindset of the implementing partners. It could be argued, however, that this project does incorporate aspects of climate change adaptation (CCA) via the early warning system and also the community awareness aspects. Flooding could

become an increasing risk with climate change with potentially more frequent and intense severe flooding events (IPCC, 2007), thus this project could be seen to be adapting to the future risk by raising awareness and increasing preparedness to severe flooding.

5. Key Strengths

Inclusion of project partners from the inception phase: Since the project's inception, partners in DRR have been included in the development of the proposal and this includes national government via the NDMO as well as national government representatives in Navua. Also important is the commitment to building good relationships between project partners and stakeholders, something this project also aimed to do from the outset.

Working with all levels of government: The Navua LLRM project endeavoured to work closely with the existing levels of government (central, provincial and national) to ensure long term sustainability of the project. Although this was difficult at times, perseverance led to good working relationships and a level of trust developed, ensuring positive outcomes.

Use of local language and implementation within the Pacific context: Working with project partners such as the national Red Cross enabled the project to be implemented by people who understand what it is to work in DRR in the Pacific. Technical language and terminology from development agencies can sometimes hinder the success of a development project. Using the local language and appropriate phrases can make a big difference in how the community perceives outsiders coming in to implement development work. This project succeeded in that sense by using local people where possible.

Commitment to sustainability: The project notes the need to commit to long term sustainability, and working with local stakeholders to ensure this occurs. It also recognised the need to build trust with local partners. Project leaders went to great lengths to ensure stakeholders saw that commitment was genuine.

Vulnerability and Capacity Assessment (VCA): VCA is a tool developed by the Red Cross to identify exposure to risk and how to overcome vulnerability using resources available within the community (IFRC, 2006). The VCA is participatory by nature, requiring community input in describing community practices, systems and norms that relate to DRR, and also their vulnerability to hazards and risks in the community (IFRC, 2006). The Fiji Red Cross, along with support from the IFRC, was instrumental in implementing this aspect of the project which added value by empowering communities via allowing them to take control over disaster planning.

6. Challenges and Issues

Sustainability: local management issues: In early 2009 the local government changed with the replacement of key government representatives who had been fundamental in the project's development and implementation. This resulted in a significant loss of local capacity for the project. To overcome this setback and to make the most of the remaining time on the project, the UNDP is running workshops and holding consultations with new representatives over the coming months to try to get back to where the project was prior to the loss of key personnel.

Samoa Community Based Adaptation

1. Introduction and background

The Global Environment Facility (GEF) is the financial mechanism for the United Nations Framework Convention on Climate Change (UNFCCC), tasked to assist countries with on-the-ground action to cope with climate change impacts (GEF, 2009). The Community Based Adaptation (CBA) Project is one such initiative, developed as a pilot project for 10 developing countries, including Samoa. Enhancing community resilience, and the ecosystems upon which they depend, is a key aim of the CBA approach (GEF, 2009). The goal of the Samoa CBA initiative is to enhance the adaptive capacity of the village and reduce the vulnerability of the mangrove and coral reef ecosystem to the risks associated with climate change. This will be achieved via a number of activities, including education and awareness raising regarding climate change, construction of shoreline protection and replanting of mangroves to stop coastal erosion.

2. Project Partners

Global to local stakeholders are involved in this project. From the local level, the communities themselves represent a significant group, with sub-groups and key people involved in the project. This includes the church, the Council of Chiefs, the Women's Committee and the Development Committee. At the national level, government ministries such as the Ministry of Natural Resources and Environment (MNRE) and the Ministry of Works are involved, as well as the GEF-SGP Secretariat, the UNDP Country Team, the National Steering Committee and the Technical Review Committee. At the regional level, SOPAC, SPREP, UNSW and UNDP Technical Advisors are involved. Finally, GEF, AusAID and UNDP represent global level stakeholders.

3. Funding and resourcing

CBA initiative is funded by the GEF and co-financed by the Australian Agency for International Development (AusAID). This is channeled through AusAID's Vulnerability and Adaptation Programme for Samoa. Total financing from the two donors is US\$50,000 each, however the total funding required is US\$400,000. The remaining funds will be raised from other sources.



4. Integration of DRR and CCA

The "A" in CBA refers to climate change adaptation. Thus, from the outset, the aim of the CBA initiative is to adapt to climate change at the community level. However, the outputs listed for the CBA project focus on reducing risk and enhancing resilience, with activities which could be arguably contributing to DRR. It just so happens that climate-related risk is the focus. The CBA initiative in Samoa can therefore learn from the DRR field, by drawing on the expertise and experience of DRR practitioners such as those from the Disaster Management Office. This will enable lessons learned to be incorporated, and similar projects addressing vulnerability to be taken into account to reduce duplication of efforts and result in

Fig. 6 Samoa CBA Fasitootai site

better outcomes for the community.

5. Key Strengths

Close relationship with donor: Key members from the community of Fasito'otai have developed, over time, a reasonably close relationship with the CBA donors – both GEF and AusAID. The interest of the donor, which also extends to constant communication and feedback on the approach, allows the community to feel the donor is genuinely interested. As a result, the community feel empowered to meet the donor's obligations resulting in community ownership and participation in the decision making processes.

Building on past initiatives and aiming to address capacity and policy gaps: Key documents the CBA initiative builds upon in Samoa include the National Adaptation Programmes of Action (NAPA) and Coastal Infrastructure Management (CIM) Plans. These important documents are looked to for baseline information. It is also the aim to identify and fill policy gaps and to share experiences and lessons learned on the CBA journey, both in Fasito'otai and the other locations where CBA is being implemented in Samoa and abroad.

Learning by doing: There is much talk at the policy, legislative and institutional level on CCA but the CBA initiative represents one of the few CCA projects actually being implemented now. This means that with careful planning from the global level, incorporating flexibility based on local needs, a CCA project can begin implementation with the aim to scale up and replicate in other locations over time. This is one of the key aims of the CBA initiative.

Heavy emphasis on Monitoring and Evaluation (M&E): The CBA approach, like many UNDP projects, places a heavy emphasis on monitoring and evaluation (M&E), recognising the need to keep track of progress throughout the project's lifetime. The CBA project also incorporates a strong participatory approach to M&E from its early inception, calling on local to national stakeholders to assist in developing baselines for M&E (UNDP, 2008). The heavy emphasis on participatory M&E is thus identified as a strength of the CBA approach, as it leads to local ownership and the project being assessed according to culturally appropriate and locally identified baselines and targets.

6. Challenges and Issues

Shortfall in funding: The full project cost is US\$400,000. GEF and AusAID are providing US\$100,000, therefore there is a shortfall of US\$300,000. In an ideal situation, the project would be fully funded from the outset, therefore this shortfall is identified as a challenge for both the Fasito'otai proponents and the GEF-SGP Team who are assisting with implementation. Being a community-based initiative, the community decides how the project should be developed, thus it was their decision to proceed despite the lack of funds.

Lack of proper risk analysis: An aspect that may require more attention in future projects of similar scope is that of a thorough risk analysis. This relates back to the integration with DRR. The links between CCA and DRR are strong, and as such, similarities should be taken advantage of, as the DRR field has much to offer in terms of past experience in risk assessment and analysis.

Women In Business Development Inc Food Security Project

1. Introduction and background

Women In Business Development Inc (WIBDI) is a Samoan non-government organisation (NGO), established in 1991 with the aim to develop sustainable livelihoods for rural families through poverty alleviation and generating alternate income opportunities (WIBDI, 2008). Although called "*Women*" In Business Development Inc, their work is predominantly with the family unit in aiming to achieve their goals of sustainable livelihoods.

The targeted disaster management aspect of WIBDI's work began in 2008 with the first dedicated Disaster Management Officer who began looking into traditional methods for disaster preparedness and risk reduction, including food preservation techniques. WIBDI's current initiative for disaster risk reduction (DRR) and climate change adaptation (CCA) revolves around food security. Its approach, however, is holistic, extending to all aspects of sustainable livelihoods for people living in rural areas across Samoa.



Fig. 7 WIBDI Office, Apia, Samoa

2. Project Partners

WIBDI have developed good working relationships with many organisations in Samoa which has greatly assisted in the roll out and implementation of the Food Security project. The Government of Samoa's Ministry of Agriculture and Fisheries (MAF) is involved in a somewhat technical sense. Along with the researchers from the University of the South Pacific's (USP) Samoa campus, MAF provide advice on certain pests and diseases affecting typical Samoan crops such as taro and breadfruit. The Disaster Management Office (DMO), which falls under the Government's Ministry of Natural Resources and Environment (MNRE) is also involved, since they too have a village based DRR program.

3. Funding and resourcing

WIBDI's Food Security Project is funded by the United Nations Food and Agriculture Organisation (FAO), who have their regional headquarters in Apia. FAO provide assistance via the supply of seeds and vegetables to rural families and well as piggeries to support the ongoing needs of families. Technical assistance is also provided from staff at the regional office in Apia, as well as via specialised consultants who are frequently around offering advice and guidance. "In kind" assistance is provided by project partners, as described above, as is so often the case in community development work in Samoa.

4. Integration of DRR and CCA

This project provides a good example of an initiative that is neither explicitly DRR nor CCA, but rather an approach to vulnerability reduction and the creation of sustainable livelihoods that integrates

both elements equally. Although not referred to often, DRR and CCA are key aspects and drivers of the whole approach. Food Security is a rising concern due to the risks associated with climate change. A changing climate may reduce the yield of many plants and crops responsible for providing the bulk of the food requirements for local people (FAO, 2009). Another risk is that of increasing tropical cyclones, storminess, droughts and flooding – all of which have direct impact on the growth of local food crops. Therefore by being as prepared as possible, via diversity of crops and a self-sufficient lifestyle, risks associated with food security are reduced. Finally, the simple fact that the Disaster Management Officer is also in charge of CCA is a direct means to integrate the two issues. The Disaster Management Officer is fully cognisant of the links between DRR and CCA and implicitly addresses these through the Food Security Project. This approach is partly strategic by WIBDI, where staff are required to address a range of livelihood issues. It also shows how the relatively small capacity of the WIBDI office does not prevent them from delivering an effective and holistic program, as the range of skills and experience of staff are utilised in each and every project.

5. Key Strengths

Collaborative approach and information sharing: WIBDI are keen to work with other partner organisations in Samoa to maximise the benefits of their Food Security Project. This means sharing information they gather with others and contributing to the maintenance of the database of vulnerable families.

Development approach in tune with Samoan culture: WIBDI have always based their approach to building sustainable livelihoods on the basis of Samoan culture: the family. This way, their projects will be well received and situated in the right cultural context and therefore be sustainable as they are synchronised with the daily practices of Samoan people.



Fig. 8 Traditional ava ceremony

Focus on sustainable livelihoods and reducing vulnerability: Although the Food Security Project's aim is to deliver a long term solution to food availability, its approach is much more holistic via the attention paid to health and nutrition, its links to income generation, budgeting and reduced reliance on remittances and even household planning. In this sense, vulnerable families in Samoa are learning about ways to enhance their resilience to risks – be they related to disasters and climate change, or financial risks related to fuel and food prices globally.

6. Challenges and Issues

Lack of direct focus and awareness raising on climate change adaptation: An element that could be strengthened in the Food Security Project is that of raising climate change awareness amongst local people WIBDI works with. The Disaster Management Officer is keenly aware of this as something to put more emphasis on in the future. She notes that the government has a Climate Change Officer, so is already well aware of the people she needs to work with to further the climate change knowledge of WIBDI clients.

Pacific Community focused Integrated Disaster Risk Reduction

1. Introduction and background

Pacific Community-focused Integrated Disaster Risk Reduction (PCIDRR) is a community based disaster risk reduction (DRR) initiative, funded by AusAID and implemented through the National Council of Churches Australia (NCCA) and the church networks in the four countries in which it is implemented – Fiji, Solomon Islands, Vanuatu and Tonga. Its goal is to "create safer more resilient Pacific island communities to disasters so that people may achieve sustainable livelihoods and have more control over their lives" (PCIDRR Executive Summary, NCCA, 2007)."

The project activities involve training key people in Pacific communities in community based disaster risk management (CBDRM), and developing village specific Community Disaster Plans (CDPs) which identify relevant vulnerabilities and capacities, suggest ways to enhance community resilience to known threats (e.g. floods, tropical cyclones) and also include disaster preparedness and response plans to cope with these hazards should they occur.

2. Project Partners

From the village level, the village committees are represented, and linked to the PCIDRR Project Team via Field Project Officers (FPOs). FPOs are local to the region, employed for the duration of PCIDRR and encourage the whole community to participate in the development of their village's CDP. The PCIDRR Project Team (which includes the FPOs) then liaises closely with the National Disaster Management Office (NDMO) and the National Steering Committee, as well as the management team from NCCA and the Adventist Development Relief Agency (ADRA), who are contracted to manage the training component of the project.



Fig. 9 PCIDRR Village Scenario, Namuka village

In-country partner organisations include the NDMO, SOPAC, UN Agencies, Red Cross, village communities and faith based institutions. AusAID DRR staff are included in project activities to ensure feedback and lessons learned are included along the way.

3. Funding and resourcing

AusAID are providing the funds for this initiative in the four countries, having determined that funding for a community-based DRR initiative in the Pacific should be channeled through the existing church networks. Over the three years and three months of the project, AusAID has committed AU\$2,564,600. In terms of local resourcing and capacity, the project aims to draw upon the skills and capacity within the community wherever possible.

4. Integration of DRR and CCA

PCIDRR includes no explicit mention of climate change adaptation (CCA). It could be argued, however, that CCA is implicitly included since events such as tropical cyclones and flooding, which are identified in the CDP, are likely to become more frequent and intense with future climate change

(IPCC, 2007). Preparing for these hazards and identifying means to overcome community vulnerability to them may then be seen as a form of CCA. The focus solely on DRR is likely to stem from the project's origins and requirements from AusAID. The donor is likely to have specified the focus on DRR, thus the NCCA followed this up with the development of the project which uses DRR language, DRR partners and DRR methodologies. In addition, introducing CCA as an additional threat can bring in unnecessary confusion and complexity to an otherwise well understood field of reducing risk and vulnerability. Using local terms and phrases, and avoiding jargon and scientific terminology (as this project does) is more likely to result in communities taking on recommendations and achieving real risk reduction outcomes.

5. Key Strengths

Disaster Response, Roles and Responsibilities: While natural hazards are not a new phenomenon for Pacific Islanders, reminding people of how to best respond and putting this into practice and consolidating their response effort is a positive aspect of this project.

Link to National DRR Structure: A further aim of PCIDRR is for the NDMOs to see PCIDRR as part of their own overall program of addressing DRR in their respective countries, thus contributing to capacity building of the national DRR framework.



Fig. 10 PCIDRR Village Scenario, Naimalavau village July 2009

Local involvement at all levels: Having local, experienced people directly involved in implementation (e.g. FPOs and Project Manager) addresses many of the issues surrounding cultural sensitivity, local knowledge and the language barriers.

Participatory Approach: The process of formulating CDP aims to be as participatory as possible, encouraging local people to identify their own vulnerabilities and capacities specific to their village, and results in the village community being responsible for the creation of the resulting Plan.

6. Challenges and Issues

Project concept and design: Any new program coming into the region would gain much from thorough consultations with the wide range of actors and stakeholders with experience in DRR/CCA initiatives. It is also crucial to work within the national arrangements for DRR. This includes work with communities – this must be done within the context of national government arrangements. Much has been done to address this initial weakness in project design, and it is recommended that future projects include this from the outset, as doing so would promote the integrity of national structures rather than undermine it.

Expectations of communities: PCIDRR includes no provision to assist the community to meet their goals as identified in their CDPs. It is recommended that inadvertently raising expectations of communities should also be avoided, with sustainability clearly addressed in project design.