

TREATY VILLAGE RESILIENCE PROGRAM

South Fly District, Western Province, Papua New Guinea



Annual Report 2017-2018

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Prepared by the Reef & Rainforest Research Centre





1 Introduction

The Building Resilience in Treaty Villages project funded by the Australian Department of Foreign Affairs and Trade (DFAT) is working with all 13 Treaty Villages in the South Fly District of Western Province, Papua New Guinea. The region was selected as the project site because of its strategic importance to Australia under the Torres Strait Treaty and the close family ties between the PNG Treaty Villages and the Torres Strait and Cape York region in North Queensland. The project is delivered by the Reef and Rainforest Research Centre (RRRC) in partnership with INLOC International.

The Treaty Villages are impacted by seasonal flooding, extended drought periods, high water tables, extreme coastal erosion, sea level rise and no roads that present operational barriers to enabling improvements in healthcare, clean water, sanitation and hygiene. The predicted El Nino weather pattern for the 2018/19 Austral summer will trigger the planned response in Treaty Villages, mainly, the activation of Water Management Plans. The Plan controls access to water storage tanks to ensure access to drinking water throughout the summer and enable key community facilities, such as the Mabaduan School and Aid Post, to remain open despite water limitations.

The 'change to resilience' framework developed by the project is based on the successful Land and Sea Ranger programs in action across northern Australia over the last decade. The experience and lessons learnt from the Australian Ranger programs has informed both the theory and the practical implementation of the Building Resilience in Treaty Villages project (BRTV).

The commencement of Phase 2 in 2017/18 extended the Community Ranger training to the remaining 7 Treaty Villages after the Phase 1 pilot tested an innovative approach to building resilience and providing support for community development in four villages – Mabaduan, Sigabaduru, Buzi/Berr, and Sui/Parama. The 51 Rangers trained during the Phase 1 pilot acted as leaders and mentors for the 59 new Ranger candidates as they completed the same level of skills training in community health, marine safety, plumbing and sanitation, radio communications, first responder first aid, nutrition, disaster recovery, and new food security (crops and fisheries) and preservation techniques (air dryer and smokers). All Phase 2 Rangers have completed their training and graduated in a ceremony on 11 June 2018 in Daru, bringing the total number of Community Rangers the project has trained to 110, including 34 female Rangers.

The project has started development of two local small businesses for: (1) Urinary Diversion Dry Toilet (UDDT) kits, and (2) Magic Bags (reusable cloth sanitary packs). Importantly, female Rangers have been actively encouraged to take on greater leadership roles in the Ranger group as well as in their villages, and have been integral in the delivery of women's health education, reproductive health services and the Magic Bag business.

Building on the notable progress to date, the project has delivered:

- 1 A total of 110 Community Rangers in all 13 Treaty Villages who have attained competency in a diverse range of skills.
- 2 Four Ranger Support Officers who are disabled villagers who have been unable to undertake other jobs or tasks.
- 3 More than 1.3 million litres of water holding capacity, 10 new wells, manual water-lift pumps for 5 wells and constructed 61 toilet kit facilities.
- 4 14 air dryers and smokers being used to preserve fruit, vegetables, fish and meat.
- 5 Routine monthly Community Action Days lead by Rangers in support of BRTV-initiated community activities in villages.
- 6 New drought- and salt-resistant food crops introduced with agronomy training for Rangers in planting and harvesting these new cultivars that has been passed onto villagers.
- 7 Review of current fishing practices and exploration of opportunities to target alternative species and support better fish handling, post-harvest preservation and storage.

2 Governance

The project faces the same governance and project delivery challenges that are well-recognised throughout PNG. Despite the mining wealth of Western Province, the Human Development Index is well below most other PNG Provinces, with the Middle and South Fly Districts being the most poorly developed and under-serviced. The South Fly District has a Human Development Index of 0.26, equivalent to the Democratic Republic of Congo and one of the lowest globally. The district struggles with even basic service delivery, resulting in extremely limited infrastructure and poor law and order. Official accountability is poor and resources are rarely delivered where they intended. As a result, there is limited trust by the citizens in the South Fly District, Western Provincial and PNG governments.

Governance affects virtually all aspects of a country's prosperity. Good governance is critical for improving aid effectiveness because it influences the extent to which governments develop and implement effective policy, citizens have access to basic services and hold leaders to account, and businesses flourish. Good governance underpins programs in all sectors, including education, health, food security and income, and determines the extent to which objectives are achieved.

There has been an evolution of governance in the BRTV from external agenda setting to Rangers setting priorities, and engaging with Elders and communities to deliver agreed task and negotiate funds. Significant progress on local governance has been observed, with some Phase 1 villages formally including Rangers as a 'sector' in their Ward Development Plan (e.g. in Mabaduan), and a Ranger group representative has been given full membership on the Ward Development Committee. A workshop with the Ward Members for these four villages held in February 2018 aimed at strengthening this approach in all four villages. Some Phase 2 villages are also adjusting their governance system to reflect the inclusion of their Rangers. The success of the project in delivering community leadership, infrastructure and services, as well as improving local governance has been noted at all levels, from local Councillors, Ward and Provincial Administrators to the national government and Joint Advisory Committee where the PNG and Australian Government representatives spoke very highly of the great work the PNG Rangers are doing and the significant difference they are making in their communities.

This evolution in governance is operationalising DFAT governance policy at a local level. The DFAT Effective Governance Strategy identifies a series of guiding principles for enhancing governance and



Ranger Representatives in Community Governance Structures

The Building Resilience in Treaty Villages project has always aimed to deliver greater self-reliance and effective governance at the local level. All Rangers trained in Phase 1 have developed skills in a range of fields, including health, water infrastructure and marine transport, as well as critical leadership and governance capacity. In 2017/18, a great focus was placed on leadership and mentoring, and promoting engagement and ownership of Ranger activities within their respective communities.

BRTV has now reached the level of maturity where all of the 13 Treaty Villages have requested that the Rangers be formally included as a 'sector' in their Ward Development Plan process (with other sectors such as Health, Education and Law & Order), and a Ranger group representative (in some instances two) has been given full membership on the Ward Development Committee. A workshop with the Ward Members for all Treaty Villages in June 2018 aimed at strengthening this approach in all villages.



emphasises the fundamental importance of understanding and responding to the specific context of recipient communities. The BRTV is delivering on these areas in relation to effective governance:

- Requires capacity, legitimacy and authority to deliver public services, [regulate the economy, maintain order and the rule of law, collect and use revenue,] and act in the public good
- Representative, accountable and transparent governance
- Gender equality
- Promoting local leadership and working on issues that are important locally

The governance outcomes of the project are consistent with DFAT's approach of supporting decentralised governance in PNG and downscaling organisational capacity and leadership from national to Provincial levels, to give PNG responsibility for delivery of services. The BRTV project downscales to a village level to give village communities responsibility for their service delivery and subsequent development.

A senior male and senior female Ranger have now been identified for all 13 villages, and one of these will be the senior Ranger overall in that village. It is likely that the senior Ranger will be a female in three of the 13 Treaty Villages – a leadership result that is not matched in any other (theoretically) gender-open leadership positions in PNG (e.g. Ward members, chairmen, magistrates).

3 Project Implementation

The continuation of Community Action Days has worked well with Rangers leading their communities on monthly Community Action Days in support of BRTV-initiated community activities. The Rangers provide the expertise, equipment and key materials, and the community provides their labour and local bush materials (e.g. sand and aggregate for making concrete). This approach has relieved the expense of using Rangers for unskilled labour tasks in support of BRTV activities, and has engaged the community in investing themselves directly into community outcomes – which is aimed at gradually changing the culture towards one of more communal ownership of shared resources and infrastructure. The Community Action Days are a permanent part of the BRTV as it continues over the next two years.

3.1 Physical environment – water and sanitation infrastructure

Since the start of Phase 1, the Community Rangers trained under BRTV have delivered greater than 1.3 million litres of water holding capacity in 13 Treaty Villages. In addition, ten new wells have been dug, each with a life span of 80-100 years (subject to sea level rise and damage from natural disasters), 5 manual water-lift pumps have been fitted, and infrastructure has been enhanced in three natural springs.

New infrastructure installed in Mabaduan school – two new rainwater tanks with associated water harvesting system and two UDDT being installed, one at the primary school and another at the preschool – has had additional benefits for student attendance and teacher availability. Noting that students no longer leave early to source drinking water, and teachers from outside the village who don't have access to clan water facilities no longer leave early to source ground water. Trials of innovative roofing fabrics at Mabaduan school have the dual benefit of rain water capture and weather-proofing classrooms. The trial had limited success and refinement is required before potential expansion.

All 110 Rangers have received training in the construction of concrete tanks, using modular concrete rings made with the ring moulds developed for lining of hand-dug water wells. This technique reduces the need for the purchase and transport of large poly tanks of similar capacity, and therefore reduces cost. It also makes villages less reliant on products from outside that have to be shipped in. Using the techniques taught, Rangers have been mentored through the installation of an innovative water management system at Mabaduan. To improve water management capability in support of village-determined water governance protocols, four concrete tanks have been constructed. These tanks are fed from the main water reserve, an 80,000 L metal tank, and are designed to self-level so that all four village clan groups receive exactly the same amount of water. Village leaders believe this system, which replaces one where all four groups consumed an ungoverned amount of water directly from the main tank via four separate taps, will greatly reduce inter-group conflict on water usage and the consequent frustration-fuelled damage of communal water infrastructure. Under the village Water Management Plan, use of the stored water will be controlled from October each year, particularly leading into predicted El Nino summers, to maintain secure drinking water supplies and avoid disease and conflict.

Links with other relevant WaSH projects are being established, particularly World Vision and Live & Learn. In 2017/18 the focus was on improving harvest and storage of water for Phase 2 villages, installation of community incinerators in all villages to reduce rubbish and disease, the construction and installation of community notice boards in all villages to provide the rangers with a continuous platform for community education on WaSH issues, continuation of community awareness presentations to all schools/pre-schools on WaSH in all villages, and the installation of UDDTs.

During the transition phase, different sanitation (toilet) designs were trialled and then assessed by Rangers and communities. The Rangers have constructed 30 Ranger community toilet facilities and 31 Ranger family toilet facilities in 14 villages (2 in Buzi/Berr). Village-based discussions and a documented survey about the different toilet designs identified a clear preference for the Urinary Diversion Dry toilets (UDDT). This design is

suited to the extreme rainfall/flood conditions often experienced in Treaty Villages, with minimal flooding of streets or houses during extreme wet periods or high tides. A microbusiness started in 2017/18 with the Rangers producing UDDT kits for installation in villages. Two types of UDDT, branded as 'Ranger Toilets' are now being produced: Type 1 is a stronger, private, more expensive version for use in public facilities such as schools, communal areas and aid posts; and Type 2 is a lower cost version using enhanced bush materials for use in private dwellings. Further community feedback and acceptance has been obtained in 2017/18, almost all of which was favourable. However, the less expensive Type 2 has been identified as the more sustainable option so all development effort is focusing on the less expensive, private use model to test the business potential with the aim of the first 120 kits being sold by the end of 2018.

3.2 Community Health

The BRTV project recognises that good community health is a pre-requisite to participation in economic, political, and social development. It is therefore important that community health be integrated into project activities. This is of particular importance with regards to women's health and the very high rates of communicable disease, including multi drug resistant TB, HIV/Aids, leprosy, cholera, filarial elephantiasis, gastro-based diseases and malnutrition. Some of the communicable diseases are selectively impacting women and children.

Community Rangers graduate in June 2018

The project has now trained 110 Community Rangers, including 34 female Rangers who have attained competency in skills for community health, marine safety, plumbing and sanitation, radio communications, first responder first aid, nutrition, disaster recovery, and new food security (crops and fisheries) and preservation techniques (air dryer and smokers). The 59 Phase 2 Rangers have completed their training and graduated in a ceremony on 11 June 2018 in Daru, bringing the total number of Community Rangers the project has trained to 110.



The project has continued to deliver in situ education, awareness and training in villages to respond to community healthcare issues, and referral pathways for villages to access the formal healthcare system (e.g. PNG Health TB program, Spacem Pikini program). Spacem Pikini, a PNG family planning organisation, conducted a week deployment to selected Treaty Villages in November 2017, supported by the BRTV and in particular, the female Rangers. Marie Stopes PNG opened a branch in Daru in early 2018, and BRTV (primarily through the female Rangers) continues to provide community-level female health awareness on behalf of Marie Stopes. BRTV also provided facilities support (access to accommodation, kitchen, etc.) at the Paho ranger camp to Marie Stopes when they commenced their reproductive health awareness sessions in the South Fly in January/February 2018.

All 110 Community Rangers have completed and are competent in First aid/First respondent training (standard HLTAID003) with the addition of relevant elements of HLTA302C Remote Area First Aid. Rangers from all villages have been issued with a quantity of 'birthing kits' to allow village women to assist in births where it is not possible to reach a formal health worker and/or medical supplies as increasingly the female rangers are being preferred by village women, even where other village women voluntarily provided those services, due to the better training given to female rangers.

The project has attracted further activities in the community health area by distributing donated Magic Bags (reusable sanitary packs) to female Rangers and school girls in Treaty Villages, supported by women's health awareness from the female Rangers. Targeted women's business training in August 2017 with female Rangers discussed health issues and provided resources that were delivered in villages. The villagers expressed their gratitude for the awareness sessions and to the donors and the Rangers for the Magic Bags.

3.3 Enhanced food security through improved agriculture and fisheries practices

Food security is a major issue facing communities in the Treaty Villages, with limited access to protein as well as poor soil and climate conditions for growing crops. This component of the Project focuses on two key areas; improved agronomy using drought-resistant cultivars and improved access to and use of fisheries resources. Training and demonstration garden plots began in March 2017, with the trial of new drought-resistant seeds. All Rangers have been trained in basic agronomy skills and there are 26 agronomy mentor Rangers. Adjustments made to practices, in terms of the timing of planting and harvest and crop types, to address pest and rainfall issues have been trailed. This second trial (with improved strain) of blacked eyed pea cultivars commenced in June 2018 and involves planting over a three-month period (June-August 2018) to compare production outcomes with other crops during the dry months (June-November 2018).



As part of the food security activities, there are also 26 fisheries mentor Rangers who were trained in 2017 and provide leadership and knowledge to other Rangers and their communities. Fisheries training in 2017 covered: better post-harvest handling and storage, construction of air drying and smoking equipment, targeting alternative species, increasing catches of pelagic fish (e.g. mackerel), and more efficient fishing practices. Community Rangers have constructed and installed 14 air dryers and smokers, used for post-harvest treatment and storage of vegetable, fish and meat. Training in villages is ongoing for using these preservation methods and improving fishing practices.



3.4 Women empowerment and equitable participation

While there remain significant barriers to active and equal participation by women and minority groups in decision-making in the Treaty Villages, the Resilience Project has trained 34 female Community Rangers in the two Phases and they now take on leadership roles in their communities. Low levels of literacy, obligations to the family and cultural issues were placed as initial barriers to female inclusion. However, after much negotiation 12 female candidates for Phase 1 were selected by clan elders and inducted into the training program. With these barriers now removed, the same process has been followed in Phase 2 to select and train a further 22 female candidates.

Female candidates undertake the same training as the men including boat handling, first aid, building, communications, small motor maintenance and plumbing. They also undertake additional training in women's health, nutrition and birthing assistance. Their inclusion in the Project to date has brought considerable benefit to the communities. For example, the female community rangers assisted during the water crisis by attending water collection points and training local women in water purification and gastroenteritis control. This in turn significantly reduced the reliance on the Torres Strait medical facilities during this period. The female rangers also play a significant support role for the health workers in each of the communities and providing ongoing community-level female health awareness.

Ranger training in Phase 2 (from November 2017 to June 2018 up to graduation) covered basic leadership skills, and Ranger groups now undertake all activities with a rotational leader each day. This includes leadership by the female rangers, sometimes supported by a mentor, and there has been an obvious increase in confidence and equity in the Ranger group. The success of the female rangers and the appreciation by community members has resulted in the female rangers having greater participation in village meetings and decision-making.

During August – September 2017, the female Rangers were consulted in detail on the potential for developing a small business around the sale of reusable sanitary pads. The female Rangers conducted consultation and awareness discussions within their home communities to judge acceptance. After a positive response, the trial of producing and selling reusable sanitary pad sets commenced, lead by female Rangers. The project is now in its fourth of six stages, and stock is being mass-produced ready for sale in late 2018 (stage 5) with a view to establishing a small business (stage 6). The immense social and health benefits, particularly for women, from this initiative must be noted, as they go far beyond the benefits of simply establishing small businesses.

Talking Women's Business

In August 2017, the project conducted a dedicated women's health awareness session with the Phase 1 female Rangers to discuss matters relating to reproductive health, communicable diseases, pregnancy and birth. The frank discussion revealed many misconceptions about these matters, and provided an opportunity to address some of these. It was also an avenue for providing birthing kits donated by Birthing Australia, Magic Bags (reusable sanitary pads) donated by communities in northern Australia, and lay the foundation for visits by Spacem Pikini, Marie Stopes and for the reusable sanitary pad microbusiness. The female Rangers shared much of the discussion in their respective villages and canvassed interest in the Magic Bag microbusiness which has informed how this has been developed.



Community Rangers are speaking out about gender and disability equality and family violence, which is an important factor in influencing broader community attitudes towards these issues. The Project is providing strong female role models and positions for disabled community members, promoting information to counter cultural norms about gender roles and community domains.

The female Community Rangers have developed an anti-family violence narrative based on the reality that if a women is beaten then she is unable to look after the children or undertake village work. Therefore beating your wife is an act against the whole village and pulls the village down. The male Community Rangers have adopted this narrative and represent a serious gender-enabling group. The male Community Rangers are held to the highest standards as community mentors. If a Community

Ranger commits family violence or other unsavoury conduct, he loses his job, which will bring shame to his Clan and reduce his family's income. Male rangers are also called upon to ensure that the female Community Rangers are safe at all times when visiting other villages or Daru

3.5 Disaster Risk Reduction

The Torres Strait and South Fly District are recognised internationally as a hot spot for climate change and increased natural disasters. There has been significant sea level rise (highest astronomical tide increase estimated at 52 cm since 1920's), and more frequent extreme rainfall events – drought and flooding. These natural disasters are predicted to increase in intensity over the next 50 years. Natural disaster impacts combined with communicable disease outbreaks (e.g. cholera, multi-drug resistant TB) are a significant driver of cross border instability.

Disaster risk reduction plans and response training are a significant component of the BRTV Project. The four safety vessels and equipment such as shovels and chainsaws make up part of the village disaster response facility. The delivery of 9 new safety vessels for the Phase 2 villages is currently postponed until the funding becomes available. Early warning and prior preparation are the key to building community resilience. Baseline studies conducted in the Torres Strait on traditional coping mechanisms are being utilised along with focused planning and broader community training. A mentor Ranger has been identified for each Treaty Village and they will become the Subject Matter Expert (SME) for that village on Disaster Response.

4 Monitoring and Evaluation

The Project has established a robust Monitoring and Evaluation (M&E) approach that provides both quantitative and qualitative metrics. The initial baseline infrastructure surveys provide the evidence for practical progress by the BRTV Project and Community Ranger progress is also being mapped against work plans. This evaluation approach allows for a comparative analysis of the effectiveness of different leadership approaches in tangible outcomes for the community. Qualitative and observational analysis can be made between pilot villages and others that have not received intervention from the Project.

As part of the administrative training for the Community Rangers and as a measure of progress, the Rangers are required to report on their activities. This reporting is comprehensive, and includes:

- Detailed reports on each first aid/medical emergency they attend.
- Detailed reports and photographs of the crowd of people attending the community training session that they conduct. This also provides a 'head count' of community members receiving training from the Rangers.
- Detailed reports of infrastructure work (installing tanks, digging wells) achieved independently of project mentors with supporting photographs for verification.
- Written report on issues and impediments and suggested improvements in the future.

These reports are collated and included in the general project reporting. The responsibility of reporting and evaluating performance is embedded as part of the overall leadership training. Accuracy and integrity in reporting is an essential element for each of the villages. The Community Rangers also verbally report to the Council of Elders in each village on their achievements against the work plan. Where the village leadership is weak, achievements against the work plan is poor, and this outcome is transparent.

The RRRC utilises the Australian Government M&E system and holds appropriate data in a number of formats. RRRC also holds relevant data from other Australian Government programs relevant to the South Fly District. In terms of information sharing, review and learning activities, the Community Rangers regularly meet with mentor/trainers and analyse progress and challenges.

5 Communications

The Project has a structured communication protocol with Treaty Villages and the District Administration and associated agencies. Regular briefings are given to update the District Administrator, District Treasurer, Police, Customs, Border Development Authority and Daru Hospital.

The sharing of information has helped the Project overcome considerable scepticism about the project objectives. Many community members believed that the intent of the project was to prevent the harvesting of dugong and fisheries resources by Treaty Villages, or some other policing exercise. These misconceptions have been addressed and the work of the Community Rangers now receives community support and regular coverage in the local and national newspapers. The District Administrator saves these articles about the activities of the Community Rangers on his wall, which are regularly updated by his staff.

Collaboration with other institutions and potential partners is principally through the annual Traditional Inhabitants meeting of the Joint Advisory Committee of the PNG and Australian Torres Strait Treaty. Updates are presented to the attending PNG and Australian government agencies. Given the rapid progress of the Resilience Project, the information supplied has been well received and opportunities to integrate with other Australian Aid funded projects are being identified.

6 Innovation

The entire BRTV Project approach reflects classic 'participatory action research', with an emphasis on community-driven action. The approach utilises community-based collective knowledge and learnings grounded in experience and social history. It is clear that innovation opportunities exist for: more functional water capture and storage, sanitation, alternative energy supply, food production and storage, fisheries practices and low input aquaculture. The innovative sanitation and food security activities started in the transition phase have continued in Phase 2.

The trialling of innovative water capture, storage products and the UDDT systems is well advanced in many Treaty Villages with the trialling and selection of the Type 2 UDDT design. These innovations will revolutionise water systems in remote rural communities that are difficult to access.





7 Value for Money

To date, an analysis of actual expenditure highlights the substantial investment in the initial ranger training and platform for implementation. The higher expenditure on trainers has given way to implementation costs, and are detailed as follows:

- Personnel costs (110 rangers + 2 female chaperones + 8 Australian mentors/trainers + 2 PNG mentor/trainers + PNG support staff + science support): 53.8% of the total budget (this includes community development officer wages/uniforms/equipment, trainer and specialist costs, all meetings, sustainable fisheries).
- Operational costs (fuel, materials, travel, supplies, safety equipment, vessels, freight): 42.5% of the overall budget (this includes community development officer equipment, operational costs – maintenance/freight, fuel, travel – international, travel – domestic, sanitation and WASH infrastructure, food garden sustainability – enhance cultivars, community communications and materials).
- Administration costs: 3.7% of the overall budget (includes administration, financial reporting and auditing, in-country coordination – excludes the RRRC contribution).

Given the high costs of staffing in-country, it is not unreasonable that personnel costs constitute the largest single component of expenditure. There are now 110 Community Rangers, 4 Ranger Support Officer, 2 chaperones, 10 trainers/mentors/experts (8 expat, 2 female nationals), 3 cooks/kitchen staff, and 4 guards.

The high expenditure on materials for repair, maintenance and new infrastructure, raises the question of PNG government investment. Through an MOU, the Project has been able to leverage nine new water tanks and two birthing beds from the PNG Border Development Agency. In addition, the RRRC philanthropic initiative has received 25 donated hospital beds that were distributed to the Mabaduan Hospital and other suitable aid posts for use as emergency beds.

8 Impact and Sustainability

In summary, the most significant improvements in community well-being and resilience to date include:

- Significant increased water capture and storage capacity (1.3 million L overall) and long-term increased access to water supply (water wells).
- Construction of 61 Type 1 and 2 UDDT. The Type 2 UDDT has been selected as the preferred design for future sanitation infrastructure.
- Building a critical mass of 110 trained Community Rangers (34 females Rangers) with capacity to deliver services into all 13 Treaty Villages. These are the leaders of the future and present a pathway to strengthen the social and economic fabric of the South Fly District.
- Addition of four Ranger Support Officers from the pilot Treaty Villages who are disabled and would otherwise have limited job prospects.
- Embedding the Rangers into community governance that reflects their recognition as future leaders and ability to deliver on community priorities.
- A culture of safety and maintenance has been introduced into Treaty Villages.
- Transitioning to a more self-driven leadership and governance systems lead by Community Rangers to deliver community services.
- Reduced family violence and improved gender equity that are openly supported by both male and female Community Rangers, resulting in a greater empowerment for women and opportunities to participate in decision-making and service delivery at the village level.
- Improvements in community health understanding and reduction in water-borne diseases.
- Enhanced knowledge of and access to female health issues and services for all Treaty Villages.
- Increased disaster/emergency response capacity in pilot villages and assistance to marine disasters.
- Establishment of a safe and reliable platform of service delivery enabling future 'fee for service' businesses to be developed (e.g. for Treaty Awareness visits, biosecurity, research and health services).
- Livelihood training for Community Rangers who are competent in preparation and costing of service tenders. There is also an audit of village skills and equipment to identify opportunities for the villages to compete against external tenderers for the delivery of service contracts that have been let by the District Administration or donor agencies.
- Improved 'work readiness' of Community Rangers through the skills training and qualifications acquired, to enable access to employment opportunities in PNG or internationally.
- New knowledge and skills in food security through nutrition and agronomy training, delivery of drought-resistant cultivars, and construction of 14 air dryers and smokers.
- Development of two new microbusinesses for UDDT kits and reusable sanitary pads (Magic Bags) that can deliver essential needs to communities as well as small-scale income.

Further Reading

Treaty Village Rangers, South Fly District, PNG: <http://rrrc.org.au/programs/png/>



