Capacity Development and TVET: Accredited Qualifications meeting the needs of coastal communities in Vanuatu

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Capacity development for increased resilience of coastal communities: A case study from Vanuatu

Authors:

Martin T., Hemstock S.L., Pierce, C., Gerecke, D. Jacot Des Combes H., Buliruarua L.-A.,

Abstract

The people of Pacific Small Island Developing States (P-SIDS) live in what are essentially "coastal communities", and are thus extremely vulnerable to climate change impacts and natural hazards due to their geographical location, topography and major economic sectors (agriculture, tourism and fisheries). For countries like Vanuatu, climate change remains the most significant single threat to sustainable development, in particular due to the large proportion of the population living in coastal communities. Pacific Island leaders are aware of this vulnerability and many related projects have been conducted on a national and regional basis by different stakeholders. A key priority for the Vanuatu government is recognized as 'achieving sustainable and resilient development across all levels and sectors in the small island nation, by addressing the risks faced from climate change and disaster impacts' (National policy on Climate Change and Disaster Risk Reduction 2016-2030). One of the key barriers to improving Pacific Island Countries' resilience to climate change impacts is the lack of local and regional capacity and expertise resulting from the absence of sustainable accredited and quality assured formal training programs in climate change adaptation (CCA) and disaster risk management (DRM) (Jordon, et al. 2010, Martin, Hemstock, et al. 2015). The European Union funded PacTVET project has partnered with The Pacific Community (SPC) and the German aid agency (GIZ) Coping with Climate Change in the Pacific Region (CCCPIR) programme to support the delivery of the first accredited TVET certificate in Climate Change and Disaster Risk Reduction (CCDRR) in the Pacific Islands region. TVET involves the acquisition of practical skills, attitudes, understanding and knowledge relating to work roles in various sectors of economic and social life. Capacity development through TVET is a process of empowerment that comes with an understanding that practical skills can directly impact livelihoods, cultures and the environment. This delivery of the CCDRR course is being led by the Vanuatu government through the Vanuatu Institute of Technology. The delivery of the CCDRR course in Vanuatu and the pending national accreditation at Certificate 1 level is leading regional and global developments in formal accredited TVET training for Climate

Change and Disaster Risk Reduction. Additionally this Certificate 1 in CCDRR has been aligned with the outcomes in the regional Certificate 1 in Resilience developed by the EU PacTVET project. The delivery of the CCDRR course in Vanuatu focuses on managing climate change in coastal regions through field work and practical activities to foster developing skills and knowledge leading to effective adaptation strategies for coastal communities. Collaborative work between the EU PacTVET project and the Vanuatu Qualifications Authority is aimed to provide CCDRR graduates with dual certification in August 1017.

Key words: climate change, resilience, disaster risk reduction, accredited qualifications, dual certification

INTRODUCTION

The small island states of the South Pacific have been described as a "global front line" in the struggle of developing countries to adapt to the adverse impacts of climate change (Ferris, Cernea and Petz 2011). Without addressing climate change, sustainable development cannot be achieved. At the international level, the Sendai Framework (UNISDR 2015) is a 15-year non-binding agreement which "recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders. The Sustainable Development Goals (September 2015; SDGs), and the Paris Agreement (December 2015; COP21), are two other recent landmark agreements that call for "capacity building" in disaster risk reduction, sustainable development, and climate-change adaptation and mitigation

Education and capacity building have roles to play in achieving the alignment and delivering the outputs of the three recent global initiatives (the Sendai Framework, SDGs and the Paris Agreement). Findings from the needs and gap analyses of all 15 Pacific –African, Caribbean and Pacific (P-ACP) countries indicate that formal qualifications which account for local contexts are required to build national capacity to: accurately monitor and assess impacts of climate change and natural hazards; identify solutions to reduce these risks; and plan, manage and implement risk reduction projects to reduce damage and losses (Martin, Hemstock, et al. 2015).

The significance of capacity building for climate change adaptation to the sustainable development of the Pacific Island countries and territories was seen in the endorsement by the Forum Leaders of the Pacific Islands Framework for Resilient Development (FRDP 2017) which replaces the Pacific Islands Framework for Action on Climate Change.

The Vanuatu government supports the global and regional direction in its national policy on Climate Change and Disaster Risk Reduction (20016-2030). A key priority for the Vanuatu government is stated as 'achieving sustainable and resilient development across all levels and sectors in the small island nation, by addressing the risks faced from climate change and disaster impacts' (Government of the Republic of Vanuatu 2015).

CONTEXT

Vanuatu's society, environment and economy are highly vulnerable to climate change and disaster risks. A 2012 United Nations report assessed Vanuatu as one of the most highly exposed countries in the world to disaster risks. The devastating consequences of a category 5 tropical cyclone in March 2015 and the recent strongest ever out-of-season cyclone to hit the Southern Hemisphere (May 2017) highlight the country's risk from natural disasters. Predicted increases in extreme weather from climate change means the country will face even greater impacts.

Though a tiny country by global standards, among South Pacific nations Vanuatu is relatively large, comprising a double chain of about 40 islands, and 40 islets and rocks of volcanic and coral origin (approximately 65 inhabited). The total land area of nearly 13,000 square kilometres includes more than 2,500km of coastline (see Figure 1). Over 65% of the nation's people rely on subsistence agriculture, while the remainder rely on a few key industries, of which the most valuable is tourism (ADB 2009). According to the World Bank in 2016, the total population of Vanuatu numbered more than 270,000, of which approximately 25% lived in urban areas in and around the capital Port Vila, and Luganville. 75% of rural Ni-Vanuatu are subsistence farmers and fishermen. Given the extensive coastal area in Vanuatu where the majority of the population live, coastal communities are the country's focus for economic activity. Best estimates of long term, systematic changes associated with climate change indicate that by 2050, sea level is likely to have increased by 20 cm thus increasing the challenges for the many people living in these vulnerable coastal communities of Vanuatu.

Figure 1: Map of Vanuatu
(Source:http://www.lonelyplanet.com/maps/pacific/vanuatu/map_of_vanuatu.jpg)

One of the key barriers to improving Pacific Island Countries' resilience to climate change impacts is the lack of local and regional capacity and expertise (Jordon, et al. 2010, Martin, Hemstock, et al. 2015). Although there has been substantial ad hoc training led by development partners over the past two decades, the lack of expertise is the result of the absence of relevant curriculum, trained personnel and well-resourced and equipped training institutions to deliver on the required formal training programme. Limited availability of appropriate training related to climate change adaptation and disaster risk reduction has led to: lack of locally trained people to implement and monitor projects; use of donor funds to support foreign experts; unsuccessful projects causing maladaptation or increasing vulnerability and risk.

Findings from a regional needs and gap analysis (Martin, Hemstock, et al. 2015) that formal qualifications which account for local contexts are required to build national capacity to: accurately monitor and assess impacts of climate change and natural hazards; identify solutions to reduce these risks; and plan, manage and implement risk reduction projects to reduce damage and losses.

Supported by the European Union, the Pacific Technical and Vocational Education and Training on Sustainable Energy and Climate Change Adaptation project (EU-PacTVET 2014 -2019) was designed specifically to address this gap. The project aims to enhance

Pacific – African, Caribbean and Pacific's (P-ACPs) regional and national capacity and technical expertise to respond to climate change adaptation (CCA) and sustainable energy (SE). The SPC – GIZ[1] funded Coping with Climate Change in the Pacific Island Region (CCCPIR 2009-2018) programme aims to ensure that the skills and capabilities of the local population, national governmental authorities and regional organisations are enhanced in order to cope with the effects of climate change and combat its causes. The CCCPIR also spans over the fifteen P-ACPs. These two projects (EU PacTVET and CCCPIR) have combined resources in Vanuatu and working collaboratively with the government of Vanuatu to support the delivery of the first TVET accredited training in Climate Change and DRR in the Pacific Islands region. Delivery of accredited TVET training in this subject area is a global first.

This paper presents the progress to date in this initiative. The paper also makes the case for using accredited regional and national TVET qualifications to support capacity development. Capacity development through TVET is a process of empowerment that comes with an understanding that practical skills can directly impact livelihoods, cultures and the environment. Capacity development is a foundational aspect of successful overseas development assistance and effectiveness in meeting long-term sustainable development goals.

CCDRR - OVERVIEW

The development of the Climate Change and Disaster Risk Reduction (CCDRR) course commenced in April 2014 with a request from the Vanuatu Rural Development Training Centres Association (VRDCTA) to The Secretariat of the Pacific Community and GIZ to revise an existing regional training manual on Climate Change and Disaster Risk Management to suit the national and local context and further developed to suit specific industry needs (e.g. agriculture). Due to the large proportion of the population living in coastal communities in Vanuatu the field work component in the CCDRR course focuses on coastal regions. Funds to develop curriculum and resources were provided and managed by SPC-GIZ. A long-time teacher at the Vanuatu Institute of Teacher Education was recruited to develop the skills package in collaboration with the GIZ project team. Initial consultations were conducted over a four-week period with key industry, government, NGO, education and community personnel based in Port Vila. The course was planned and designed at certificate levels 1 and 2 on the Vanuatu Qualifications Framework (VQF) which is equivalent to the Pacific Qualifications Framework (PQF) (SPC 2011, Vanuatu

[1] Deutsche Gesellschaft fur Internationale Zusammenarbeit (German government aid agency)

Qualifications Authority 2015). These levels provide the skills and knowledge a graduate would be expected to have on the successful completion of all learning. The resulting skills package comprised seven units of competency, with a Learner's Guide; Learner Workbook and Trainer/Facilitator Guide for each of the units. These resources were designed to also support the course as a 'Training of Trainers'. All resources were developed in both English and French. The units collectively provide a graduate profile for employment and/or community support. For example a graduate of the CCDRR course could be a key contact for overseas development partners seeking local input to project/programme design, an environment/conservation officer, lead community/provincial person advising government and NGO's on local climate change issues and/or a local advisor for research activities and government policy planning. An important aspect of the course was the recognition of traditional knowledge as a critical component in all areas for planning and implementing effective adaptation strategies. Another key feature was the focus on learner interaction and communication with, and support for local communities.

The delivery of this course first piloted in May 2015 at the Fisher Young Rural Training Centre on Vanua Lava in the Banks Islands, Torba Province. This delivery targeted student learning at a certificate 1 level. 14 secondary school aged students attended (9 male and 5 female). These students were also enrolled in vocational courses at the RTC such as carpentry, business and tourism. The learning in the CCDRR course provided these students with skills and knowledge integrated with other industry sectors.

A second pilot training course was held in Luganville, Santo Island in September 2015 for trainers working at Rural Training Centres throughout Vanuatu. The focus of this ten-day training course was to 'Train the Trainers'. The 33 participants (23 male, 10 female) were predominantly RTC trainers from the 6 provinces in Vanuatu. 3 RTC managers and 3 VRDTCA staff attended along with development partner participants.

The learning focused on gaining an understanding through experimentation and practical activities. For example participants studied the impacts of increased concentrations of greenhouse gases on sea levels and ocean pH values by conducting experiments such as; the effect of heating on the water level in a sealed plastic bottle and the effect of immersing a shell in an acidic solution (white vinegar). Field trips were conducted in coastal communities as these are considered the most vulnerable sites to the impacts of climate change and natural hazards in Vanuatu. The delivery was

presented by the same consultant who had designed the curriculum and who is fluent in the three main languages of Vanuatu: English, French and Bislama. The learning resources provided to the RTC trainers included soft and hard copies of learning guides for all seven units of the CCDRR programme, the set of 16 pictures from *"Learning about climate change the Pacific Way: A visual guide"* (SPC-GIZ), the Teacher's Guide for these pictures, and the video-clip *"Klaod Nasara"*. Students' diagrams on traditional fishing and food preservation techniques developed through these pilot courses were subsequently included in the revised guides.

In late 2016 the consultant worked with the Vanuatu Qualifications Authority (VQA) to support a submission for national accreditation of the CCDRR course. The VQA process of accreditation determines the appropriate certificate level. The submission for the national accreditation was completed by the Vanuatu Institute of Technology in late 2016. At the same time the regional certificates 1 and 2 in Resilience (developed by EU PacTVET project) were mapped to the outcomes in the CCDRR course to facilitate subsequent submissions for the national accreditation and recognition of these regional qualifications in Resilience (Martin, Sanerivi, et al. 2016). Both the CCDRR and the Certificates 1 and 2 in Resilience provide pathways to further study in Resilience (Certificates 3 and 4) which have eight elective strands including 'Coastal Management'[2].

CCDRR: A mechanism to address climate change impacts for coastal communities in Vanuatu

The CCDRR course is currently being delivered to 29 students from the six provinces in Vanuatu. The course was advertised in December 2016 and a total of 95 applications were received. Selection of students was based on the criteria of island and location of residence, level of education, previous experience in the fields of climate disaster risk reduction and climate change, and opportunities to advance awareness of climate change and disaster issues in their local communities. There are 19 male and 10 female students participating in this course. Further details are provided in Table 1.

[2] Agriculture, Coastal Management, Energy & Infrastructure, Fisheries, Forestry, Health, Tourism, Water Resources

Table1: CCDRR student details

Age		Province		Highest level of education achieved	
18 – 20 yrs	7	TORBA	2	Year 10 secondary schooling	1
21 – 24 yrs	11	SANMA	6	Rural Training Centre (CCDRR trial course)	1
25 – 30 yrs	8	MALAMPA	3	Year 12 secondary schooling	2
31 – 40 yrs	3	PENAMA	2	Year 13/Foundation (university entrance)	11
40 yrs +	0	SHEFA	15	Certificate or Diploma in Agriculture	3
		TAFEA	1	Undergraduate university courses completed (1^{st} and 2^{nd} year)	9

The delivery of the CCDRR course is being led by the same consultant who developed the curriculum and delivered the pilot training courses. He is being supported by a full-time VIT local trainer and administratively by VIT. There are periodic meetings with the VIT management team to report on all matters and facilitate capacity building and sustainable development for this course and subsequent ones of the same nature. The development partners (SPC-GIZ and EU PacTVET) agreed to a combined budget supporting a full scholarship for all students who would be based in Port Vila for a period of five months for the full-time course in the first half of 2017. Students from provinces and locations outside Port Vila are accommodated at the VIT student hostel boarding facilities with all costs met by the scholarship.

The students in this current course are gaining first-hand experience working with vulnerable coastal communities through extensive field work. Specific examples are visits to produce hazard risk maps for five peri-urban villages around Port Vila, visits to investigate how people in five villages along the coast of north-west Efate are contributing to greenhouse gas emissions through their daily activities, and visits to the offshore island of Pele to study various mitigation and adaptation measures in use. Further field studies are planned to investigate vulnerability to hazards at community and individual level, and assisting the coastal village communities to plan and implement adaptation strategies.

At the opening of the course on 27th February, 2017, the Director General of Education stated how proud the government was that the Vanuatu Institute of Technology will deliver the first-ever certificate course in Climate Change and Disaster Risk Reduction and additionally, the first ever such course in the Pacific region. The delivery of the CCRDD course in Vanuatu and the pending national accreditation at a Certificate 1 level is leading regional and global developments in formal accredited TVET training for Climate Change and Disaster Risk Reduction.

QUALIFICATION FRAMEWORKS

The year 2015 was a landmark for the adoption of new Sustainable Development Goals by the United Nations Assembly. Education and training are at the heart of the post-2015 sustainable development agenda and are considered essential for the success of all sustainable development goals. A consensus exists around the world that qualification frameworks based on learning outcomes are appropriate tools for the reform and expansion of educational and training provision in ways that will raise skills levels, improve labour market productivity and contribute to sustainable development (UNESCO Institute for Lifelong Learning 2015).

A key barrier to accreditation and quality assurance in the Pacific Islands region is the lack of a clear and truly regional quality assurance framework (Martin, Hemstock, et al. 2015, Martin, Sanerivi, et al. 2016). The need for national and regional qualifications frameworks was raised at the regional level more than three decades ago and was highlighted by Bartam (2004). A Pacific Qualifications Framework (PQF) and a Pacific Register of Qualifications and Standards (PQRS) are now in place. The main purpose of the PRQS is to facilitate the benchmarking of nationally offered Pacific qualifications against international standards. Pacific Island Countries (PICs) are encouraged to develop national qualification frameworks and quality assurance systems and to link these to the Pacific regional frameworks to enhance the quality standing of their national systems of education and training. To date four Pacific Island Countries[3] have developed and aligned national qualifications frameworks with the PQF. Subsequently the national qualifications accredited in these countries are listed on the PRQS.

The EU PacTVET project partnered with the Fiji Higher Education Commission (FHEC) to facilitate the establishment of Certificates 1 to IV in Resilience to ensure quality assurance and alignment with the Pacific regional frameworks. The accreditation of regional qualifications is a process managed by the Education Quality Assessment Program (an arm of The Pacific Community) to confirm compliance with PQF levels and the PQAF.

Vanuatu Quality Assurance Framework (VQAF)

Trust in qualifications plays a crucial role for all stakeholders. The accreditation and certification process becomes particularly important in this context, and quality-assurance mechanisms are essential to ensure that processes effectively generate credibility and trust at local, national and regional levels.

[3] Tonga, Samoa, Fiji, Vanuatu

Vanuatu has a Quality Assurance Framework (VQAF). This was developed by the Vanuatu Qualifications Authority (VQA)[4] established in 2014, formerly the Vanuatu National Training Council, to ensure credibility and transparency in the services of training providers throughout Vanuatu. VQA is legally responsible for the development and maintenance of the National Qualifications Framework (VQF) through standards and qualifications setting, quality assurance, accreditation, equivalency of qualifications and assessment including the recognition of prior learning.

The VQF underpins the VQA quality assurance processes by enabling consistent alignment of nationally recognized competency standards and courses to relevant qualification levels. It supports the identification of pathways that enable people to move between different education and training sectors and levels. The National QF enables alignment of Vanuatu qualifications to regional and international qualifications systems. The standards for provider registration and course accreditation embrace the assessment of training provider capabilities, and in particular, whether the providers effectively offer training and assessment services up to clients' expectations. The Vanuatu Institute of Technology as a registered national provider was successful in its application to VQA to deliver the CCDRR course in 2017.

The rigour and diligence applied by the VQA processes ensures quality assurance of national qualifications which in turn enhance mutual recognition and pathways with regional qualifications and other PICs nationally quality assured qualifications. The EU PacTVET model for accreditation of regional qualifications requires potential training providers to submit applications to deliver complete or partial regional qualifications to the relevant National Qualification Authorities (NQA) in the Pacific Island country of delivery. The NQAs apply their own national approval processes. The NQAs subsequently take on a major role in monitoring the delivery, assessment and issuing of awards (certification) for the regional qualifications. Given that Vanuatu is one of only four countries with a national quality assurance framework aligned with the PQAF, and it is responsive to innovative developments to support capacity building and sustainable development, it is ideally situated to be the first of the Pacific Island countries to offer a dual qualification; nationally accredited Certificate 1 in CCDRR and regionally accredited Certificate 1 in Resilience.

CONCLUSION

The delivery of the nationally accredited Certificate 1 in Climate Change and Disaster Risk Reduction (CCDRR) is providing participants with skills and knowledge to assist coastal communities in Vanuatu to address the impacts of climate change and natural hazards

[4] http://vqa.edu.vu/

through effective adaptation strategies. The focus of the learning on coastal communities in Vanuatu through extensive field trips and practical activities reflects the flexibility and relevance of TVET as a tool to promote skills development that can directly impact livelihoods, cultures and the environment. The regional Certificates 1 to 4 in Resilience developed by the EU PacTVET project provide generic and elective strands of learning which can meet varying priority needs in the Pacific Island countries.

At the same time the EU PacTVET initiatives are supporting regional and national developments focused on developing and enhancing quality assured regional and national processes for TVET qualifications. TVET is being used as a vehicle to advance the aims of global, regional and national policies to enhance sustainable livelihoods, strengthen countries' capabilities to adapt to the adverse effects of climate change and enhance their energy security at national, provincial and local/community levels. Responsive and accredited regional qualifications should ensure that the interventions managed by those having accredited qualifications are really supporting sustainable development, thereby: limiting the impacts of climate change and natural hazards; empowering locals to become involved actors in their own development; and limiting maladaptation and generation of new risks.

Vanuatu through the delivery of the nationally accredited Certificate 1 in CCDRR is leading the Pacific Island countries in using TVET to address the critical need to develop human resource capacity to address the escalating vulnerability to climate change impacts and natural hazards and lead to sustainable development.

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