

Advancing
Integration
series



Australian Government
Department of Foreign Affairs and Trade

The case of Vanuatu

Advancing integration of disaster,
environment and climate change

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Preface: Advancing Integration

Donors supporting developing countries in the pursuit of sustainable development know that not all risks and eventualities can be predicted, managed and accounted for. Yet it is important to try and reduce these risks by understanding: the complexity of the context in which aid dollars are spent; and the routes to achieving better development outcomes, by adding value to what is already being done by partner governments.

In 2012, Australian aid* and the Overseas Development Institute (ODI)

established a partnership to strengthen the way natural hazards, environment and climate change risks are considered in development programmes and decision-making processes. Tools, guidance and new evidence was generated to improve integration of disasters, environment and climate change adaptation and mitigation (DEC) in aid programming. The Advancing Integration programme (2012–2014) began with an assessment of *Existing knowledge* and consideration of *How to measure*

progress. This draws on the latest evidence on how best to integrate DEC and provides staff managing overseas aid programmes with guidelines on how to identify opportunities for making further progress on integration.

Policy priorities and programme strategies are set within a complex web of relationships between donor headquarters, donor country offices and recipient country governments. Development priorities are identified in country programmes; and it is here that the opportunities and barriers to DEC

A map of our journey

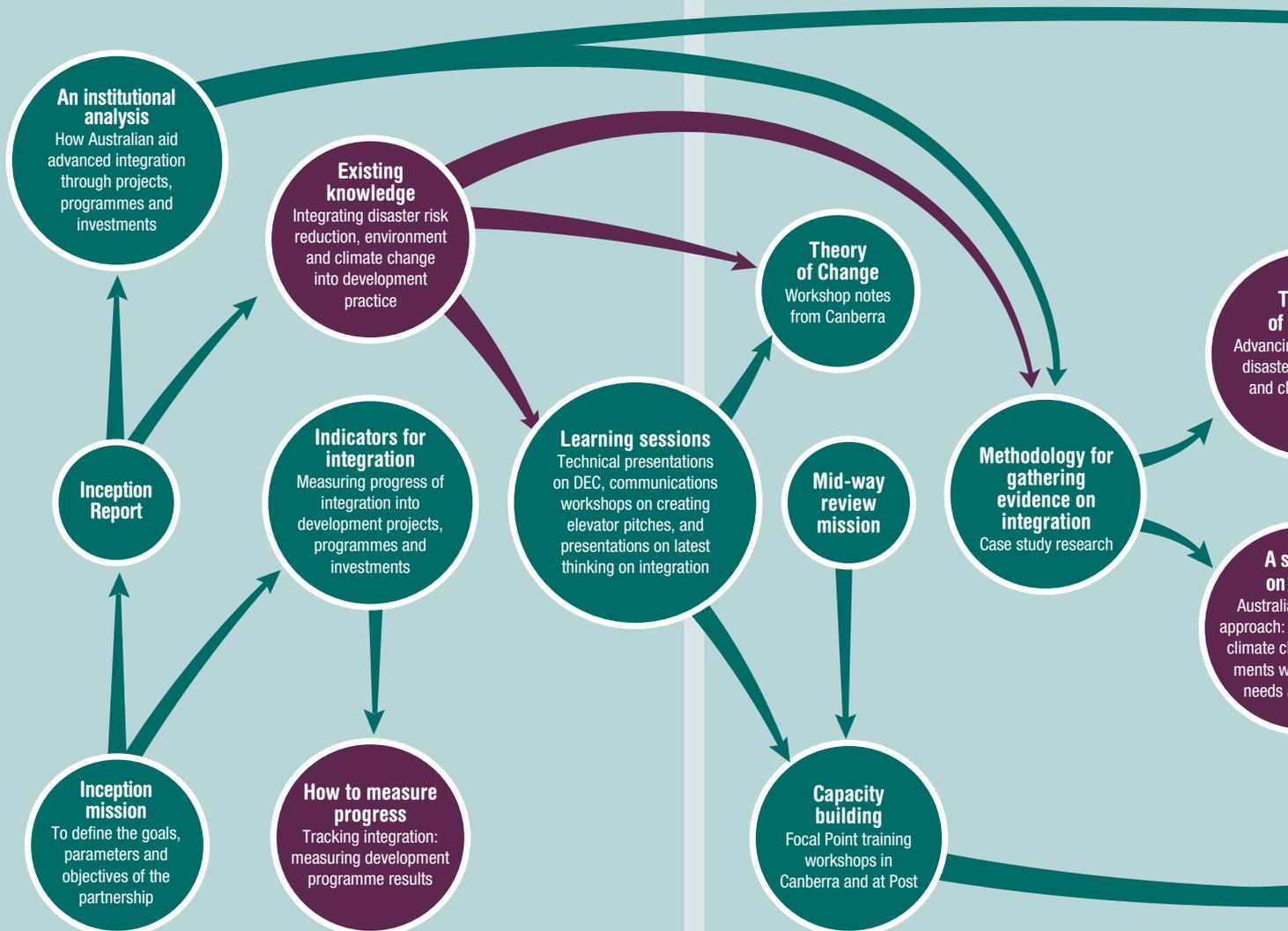
Integrated approaches to development: disaster risk reduction, environment and climate change adaptation and mitigation (DEC integration)

FIRST

Investigate and learn from past experience to make the most of existing knowledge and define how to measure integration

SECOND

Challenge existing knowledge through grounded research and



integration need to be considered. Original research was thus undertaken in a number of locations, including: *The case of Vanuatu* and *The case of Viet Nam*, as well as secondary research putting *A spotlight on South Asia* and *A spotlight on Kiribati*. Together, this material helped to ground and inform a set of products (see map of our journey) which reflect the reality of aid programming in a range of different, complex contexts.

A set of tailor-made tools and guidance notes have been created to enable staff managing Australian aid to strengthen DEC integration and

improve the sustainability and effectiveness of development programmes.

A how-to handbook for integration, for example, guides staff through assessment, analysis and action, and includes a directory of tools for further resources.

As the Department of Foreign Affairs and Trade (DFAT) harness opportunities to integrate DEC in the future, the journey and progress made over the duration of the partnership will provide valuable insights into the lessons and challenges of integration for like-minded donor governments. A

synthesis report of *Reflections and lessons* provides useful insights for others searching for a more systematic way to incorporate disasters, environment and climate change issues in their work.

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*Australian Agency for International Development (AusAID) was the Australian Government's implementing agency at the time the programmes were reviewed and since 1 November 2013 is incorporated with the DFAT.



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Acronyms

ADB	Asian Development Bank
AUD	Australian Dollar
AusAID	Australian Agency for International Development
CAPF	Comprehensive Aid Policy Framework
CCA	Climate change adaptation
DEC	Disaster risk management, environment and climate change
DFAT	Department of Foreign Affairs and Trade
DRM	Disaster risk management
DRR	Disaster risk reduction
ECB	Evaluation Capacity Building
EPBC Act	Environment Protection and Biodiversity Conservation Act
IPP	Individual Performance Programmes
NAB	National Advisory Board
NDMO	National Disaster Management Office
ODI	Overseas Development Institute
PAA	Priorities and Action Agenda
SMS	Short message service (i.e. text message)
SPC/GIZ	Secretariat of the Pacific Community/Gesellschaft für Internationale Zusammenarbeit
TVL	Telecom Vanuatu Limited
VBY	Vois Blong Yumi

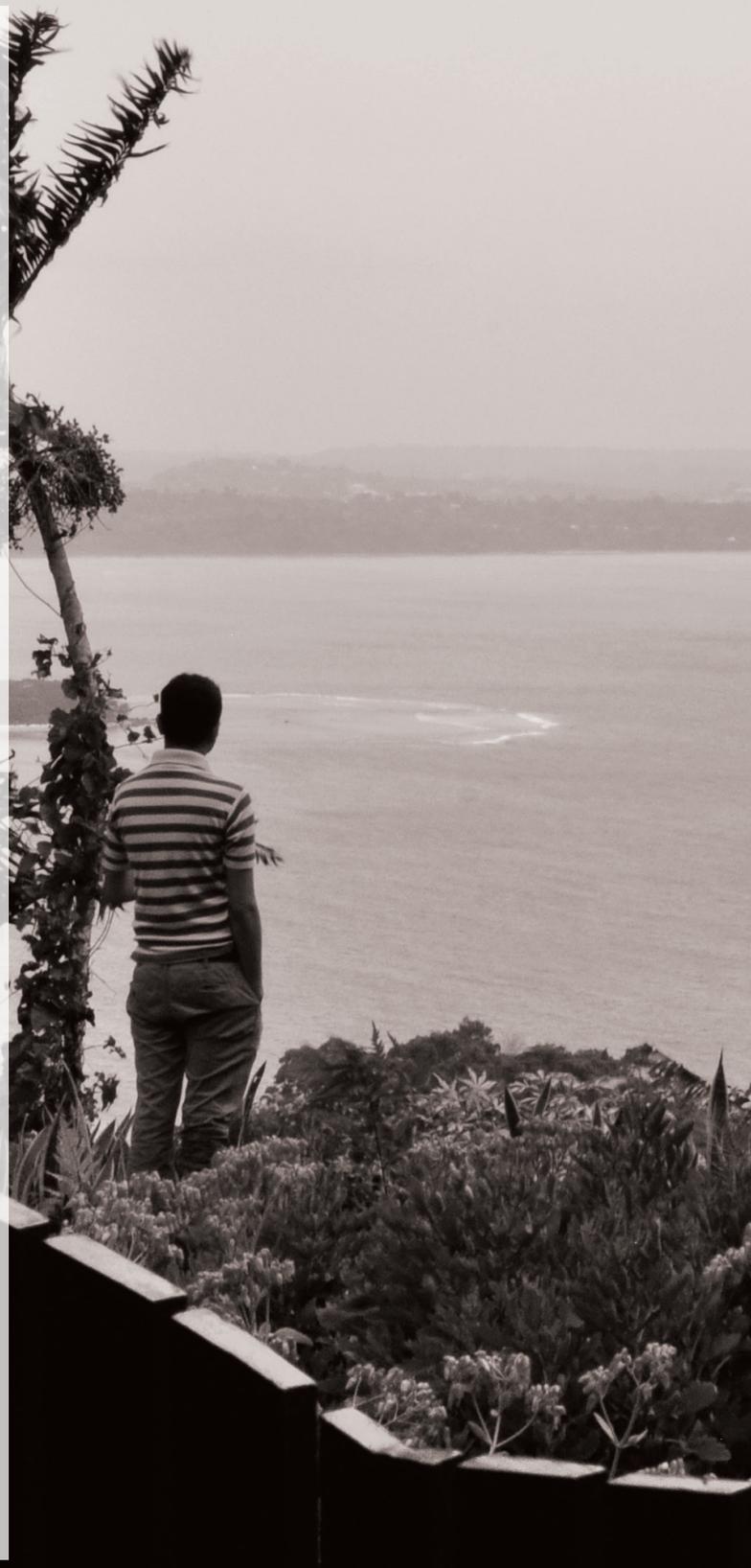
Abstract

Within Vanuatu, the Government, donors and non-governmental organisations (NGOs) are making great strides towards the effective integration of disaster risk reduction, environment and climate change adaptation and mitigation (DEC) in development programmes. As one of the world's most exposed and vulnerable countries to natural hazards, development actors recognise that in order to be sustainable, DEC must be integrated. This paper demonstrates how the Government of Vanuatu is positioning itself to engage with these issues by ensuring that climate change and disasters are clearly integrated into key policy documents. This is mirrored by the creation of new institutional structures to coordinate integration, through the formation of a new Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management.

In support of the Government of Vanuatu, the country's relatively small donor base is supporting more integrated action on DEC. Examples are provided from Australian aid, the World Bank and the Asian Development Bank (ADB). As the largest donor to Vanuatu, the Australian Government has drawn on past experience across the Pacific to become more actively integrated in their approach to development challenges.

The paper shows that through Australian aid, integration has been pursued both directly and indirectly, across a range of sectors. This includes integration: of disaster risk reduction (DRR) in the education sector through a hybrid classroom design in Takara; of climate change and disasters in a rural roads programme and; by strengthening emergency preparedness through telecommunications.

Evidence is given demonstrating how Australian aid has undertaken process to support DEC integration, and opportunities for further strengthening. It concludes with a spectrum of approaches and options for DEC integration, across a range of scales and levels of investment.



Executive summary

Vanuatu tops the list of a recent disaster risk analysis covering 173 countries (Mucke 2012). The country was found to be both extremely exposed and highly vulnerable to natural hazards such as cyclones, earthquakes, sea level rise and tsunamis (ibid). Development initiatives in the country therefore must engage with issues of disasters, the environment and climate change (DEC).

The Government of Vanuatu is doing its part to ensure that it is optimally positioned to engage with these issues by ensuring that climate change and disasters are clearly integrated into its Priorities and Action Agenda (PAA). Priority actions to date include the establishment of a National Advisory Board to coordinate the mainstreaming of climate change and disaster risk reduction across initiatives and the formation of a new Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management.

The Australian Government is the largest donor to Vanuatu and in the past has drawn on the experiences of other donors in the country which are actively becoming more integrated in their approach to addressing development challenges. The World Bank, the Asian Development Bank (ADB) and the Secretariat of the Pacific Community/ Gesellschaft für Internationale Zusammenarbeit (SPC/GIZ) have a number of programmes that explicitly integrate DEC issues. The World Bank's Mainstreaming Disaster Risk Reduction project strengthens planning and tsunami preparedness in the main urban areas of Vanuatu. Part of this involves strengthening institutional arrangements for the integration of disaster risk reduction (DRR) and climate change adaptation (CCA) to support the mainstreaming of DRR and CCA into sectoral plans and processes. The World Bank also supports the Government's National Advisory Board on Climate Change and Disaster Risk Reduction and in doing so aims to increase community resilience. The ADB is engaging with DEC issues by climate

proofing the infrastructural development it is coordinating across Vanuatu. SPC/GIZ is also undertaking a number of innovative actions to integrate climate change and disaster concerns into the local, national and sectoral policies of the Government of Vanuatu in a range of sectors from education to agriculture.

DFAT¹ has also taken initial tangible steps towards DEC integration in a number of initiatives. The organisation has adopted climate-proofing design principles in a road building initiative; integrated an emergency preparedness component into the ongoing investment in telecommunications across the country; and considered natural hazards, specifically earthquakes and hurricanes, in the design of a pilot hybrid school. This apart, this case study identifies several opportunities to strengthen DEC in-country, and to move towards a more systematic and planned institutional approach towards DEC integration.

First, agency staff can be helped to improve the quality of their work and outputs through DEC integration. This would include actions such as ensuring that the mandatory e-learning on DEC is undertaken by all staff and that more Post-to-Post learning about DEC takes place. Second, the organisation can identify and support champions of DEC integration. A DEC Focal Point could assist this process, integrating DEC objectives into Individual Performance Programmes (IPPs) and by ensuring that new staff coming to Post have a basic level of understanding on DEC integration issues. Third, staff capacity to judge the appropriateness of DEC integration needs to be built. This can be achieved through sharing existing DEC integration tools, working with sector specialists within the organisation to improve understanding of DEC issues, and taking a position on the trade-offs involved in DEC integration. Finally, more

¹ The Department of Foreign Affairs and Trade (DFAT) has, since 1 November 2013, incorporated AusAID, the Australian Government's implementing agency at the time the programmes were reviewed.

systematic and systemic approaches to DEC integration need to be supported. This would entail the inclusion of DEC indicators in performance targets, the integration of DEC in the Partnership for Development (PfD), and the preparation of a Theory of Change for DEC integration at Post.

Some of these opportunities to strengthen DEC integration require a relatively low investment of financial resources, staff time and capacity. Others need more. Similarly, some of these changes require only minor or incremental shifts in organisational protocols and procedures whereas others demand more input. Almost all actions to strengthen DEC require the participation and support of the organisation at Post, at the regional level and in Canberra. Moreover, the extent to which development outcomes will be positively achieved through DEC integration will depend in part on explicit senior support for DEC throughout the organisation.

1 Introduction

1.1 Making the case

In a widely cited analysis of disaster risk in 173 countries, Vanuatu emerged at the top of the list (Mucke 2012). The country was found to be not only extremely exposed to natural hazards such as cyclones, earthquakes, sea level rise and tsunamis but also highly vulnerable to them (ibid.). The World Bank (2011) estimates that the country has a 50% chance of incurring losses from disasters exceeding USD\$330 million in the next 50 years.² In recognition of this stark reality, the Government of Vanuatu has started to acknowledge the importance of integrating issues of disaster risk, environmental management and climate change more seriously in its institutional processes. This is evident through the establishment of a National Advisory Board (NAB) that acts as a nodal mechanism for coordinating activities around climate change and disaster risk in the country. The Government's prioritisation of these issues is also clear through the formation of a new Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management.

These mechanisms have been established to raise the profile of disasters and climate change as discrete issues and to help ensure that other processes of development start to factor in their potential influence. Interviews with key informants in Vanuatu revealed a growing realisation of how gains made by certain development projects can be potentially undone by climate impacts and disasters.³ For instance, one example cited was a coastal road being built without adequate attention to the problems of coastal erosion and sea level rise which could render it ineffective in the near future. It is the potential for investments to be undermined by a changing climate and disasters that is leading to a growing global consensus on the need for mainstreaming. Prominent

development actors are now agreed that integration/mainstreaming is not an additional burden on development programmes, but is in fact integral to securing sustainable, positive outcomes. Therefore this is a particularly important issue for Australia, as the largest donor in Vanuatu.

1.2 DEC integration: definition and benefits

The integration of DEC in development programming has been conceptualised in a number of different ways.⁴ The current definition states that:

*Integration means the management of disaster risk reduction, climate change impacts and environmental sustainability as part of development programmes and policies.*⁵

There are a number of imperatives for undertaking DEC integration into development initiatives. Primarily, as noted above, these three issues carry the potential to undermine the benefits derived from a variety of development programmes and projects. In addition, they can reduce the value of substantial investments made by donor organisations by rendering them short-lived. Conversely, taking DEC issues on-board from the early stages of an

2 Of course, these are somewhat generalised estimates and figures which can be reversed with the adoption of a more risk-informed development trajectory (including risk-informed ODA).

3 This was raised in interviews within primary donors, government agencies and civil society consortiums. The list of interviewees can be found in the annex.

4 Refer to ODI Working Paper Existing knowledge: Integrating disaster risk reduction, environment and climate change into development practice (2014)

5 Integration in Practice, Guidance Note 1 (2012: 4)

initiative is considered fundamental to ensuring the sustainability and durability of actions undertaken. Integration helps ensure that interventions continue to deliver benefits under a range of future scenarios, and that they remain relevant in a dynamic and fluid operational environment. Moreover, planning and executing development initiatives without adequately incorporating DEC leaves interventions prone to exacerbating existing vulnerabilities and increasing the risk of exposure for the intended beneficiaries of the projects (Wisner et al. 2004). For example, building schools in low-lying areas could lead to heightened exposure of students to flood events in certain contexts. It is perhaps for these reasons that the Climate and Development Knowledge Network, in commenting on the Intergovernmental Panel on Climate Change Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (2012), categorically states that it should not:

‘... be seen as a report on climate change... but as a report on global human and economic development. It really asks the questions, how risky is our current strategy for economic growth and our pattern of human settlement? With our influence on extreme weather already proven, can development be reconfigured to create a safer world to live in?’⁶

1.3 Purpose of this report

This report provides a key input to Advancing Integration, a partnership project between ODI and DFAT. It is one of a series of three in-depth country case studies on DEC integration. The report aims to communicate the key insights on DEC gained through primary research with over 40 key informants (including beneficiaries) within Vanuatu over a two-week period in June 2013. As such, it provides an overview of the policy architecture for supporting DEC integration in Vanuatu. It also captures existing knowledge around how DEC issues are already being integrated within the work of the organisation in-country and encapsulates lessons learned. Finally, this report aims to provide analytical insights and a list of actions to enhance the level (and quality) of DEC integration within Australian aid in Vanuatu and beyond.

⁶ ODI, December 2012 – COP Doha. Available at <http://cdkn.org/2011/12/a-dangerous-climate-for-cop-17/>

2 DEC integration in Vanuatu

This section outlines the main developments within the Government of Vanuatu's institutional architecture relevant to DEC integration, and efforts towards DEC integration in Australian aid. It is within this broader context that the approach taken by development partners, including the World Bank, the ADB and SPC/GIZ, are then considered.

2.1 DEC integration: Government of Vanuatu

The Government of Vanuatu has undertaken significant steps to ensure a cooperative institutional environment exists for the consideration of DEC in its plans and policies.⁷ The Priorities and Action Agenda (PAA) – the high-level strategic document developed by the Government to outline its key development concerns – was first consolidated in 2003, revised in 2006 and then updated in 2011 to include emerging priority areas including DRR and climate change (Government of Vanuatu 2012a). This document now categorically acknowledges the importance of environmental vulnerabilities and climate change impacts in Vanuatu. Within this, the Government has underlined that issues associated with climate change are to be mainstreamed in other sectors such as education, tourism and food security. More specifically, the document notes *'Social and economic development in Vanuatu will continue to be affected, underlining the need to mainstream disaster risk reduction and disaster management and climate change adaptation into national planning and budgetary processes'* (ibid. 3). As all PAAs are ratified at the senior most level (i.e. Council of Ministers) this provides a robust policy framework for the inclusion of DEC issues in the plans and programmes of the Government and its partners. In addition to the PAA, the Land Sector Framework

(2009-2018) (Govt. of Vanuatu 2009) includes strategies and activities directly or indirectly relevant to climate change adaptation.

This acknowledgement of the importance of looking at climate change and disasters in an integrated manner paved the way for the formation of the NAB on Climate Change and Disaster Risk Reduction in 2012. This is a committee of Government and non-government members which aims to *'Act as Vanuatu's supreme policy-making and advisory body for all disaster risk reduction and climate programmes, projects, initiatives and activities'* (Govt. of Vanuatu 2012). Prior to the formation of the NAB two separate bodies were charged with coordinating DRR and CCA policies. The NAB was formed to harness the synergies between these two domains – ensuring efficiency and better coordination. Mainstreaming climate change and DRR is categorically mentioned as one of the six main duties of the NAB. And integrating climate change and disaster risk reduction is one of its key features (ibid.). Therefore the NAB successfully builds on the policy framework laid down by the PAA to establish an institutional framework that supports DEC integration.

The Government's prioritisation of these issues is also evident through the formation of a new Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management. This new structure ties together previously disparate policy areas that shared substantial overlaps and aims to take a holistic and coordinated approach to engaging with

⁷ The Government of Vanuatu do not explicitly use the acronym DEC, though they do consider issues on disasters, environment and climate change. The acronym is applied here for ease.

climate change and disasters issues. Discussions with key government informants revealed that in conjunction with the NAB, one of the main thrusts of this new Ministry is mainstreaming climate change in the other ministries and departments. The formation of the Ministry is another important event in a series of actions (starting with the revision of the PAA) indicative of a clearly positive environment within Vanuatu for DEC integration.

2.2 DEC integration in country programme architecture

Aid from Australia, a key bilateral donor within Vanuatu, totalled AUD \$41.6 million in 2009-2010, reaching AUD \$55.5 million in 2012-2013. Mid-way through 2012-2013 the bilateral allocation was reduced to AUD \$41.6 million due to a reprioritisation of Australian aid globally (PfD Progress Report 2009-2012: 33). Australia is thus a highly influential donor in the country, and is expected to take the lead in providing financial and technical support for the foreseeable future, including in the event of a major natural hazard-related disaster.

The Partnership for Development is the main document articulating a shared vision of support from the Government of Australia to the Government of Vanuatu. In line with the Government of Vanuatu's PAA 2006-2015, the overarching aim of the relationship is to support progress towards the Millennium Development Goals and poverty reduction by 2015 (PfD, 2009). The current iteration created in 2009, due soon for renewal, articulates a set of sector-specific priority outcomes around health, education, infrastructure and economic governance.

Although not articulated in any formal way within the Partnership for Development, progress on disaster risk management and CCA has become an increasing part of the portfolio of work within Vanuatu. This reflects the disaster risk context in which development progress in Vanuatu plays out as well as increased funding available through the climate change budget measure.

Increased international attention to the impacts of climate change has translated into increased action at the country level. In 2011 Australia released the first detailed scientific projections for long-term climate change in Vanuatu. This work has informed the development of a Needs Assessment (Pratt and Hay 2013) an in-depth analysis of all DEC risks to development, the enabling environment and the Vanuatu programme. The Needs Assessment together with existing data and evidence will inform the Country Situational Analysis, upon which the renewed Partnership for Development will be formed.

Despite recognition of the high-risk context in which development spending takes place, translating complex interrelated risks into similarly interconnected programmes remains a challenge. In the 2010 Vanuatu Annual Programme Performance Report,⁸ the ambition to '*improve coordination of Australia's bilateral, multi-country, and regional efforts*' was explicitly included. Yet a year on, this remained a challenge, with regional activities in climate change and disaster risk reduction (amongst other themes) classified as 'not achieved', requiring better coordination in order to improve aid effectiveness.⁹

By the 2012-2013 review, support for strengthening the institutional arrangements for disaster risk management and climate change had become part of the suite of activities undertaken under 'Objective 4: Progress reform on economic governance issues'. This included support to bolster the National Disaster Management Office (NDMO) – detailed later in this report.

Integrating the development challenges and the multiple risks that the country faces into Australia's development priorities is no mean feat. This is a difficult challenge: having full awareness of the potential risks confronting the portfolio of investments. Another is addressing these within programme design and developing practical, operational measures to manage the risks. This challenge is not unique to Australia but common amongst all donors, and faced by the Government of Vanuatu itself. Greater collaboration across the suite of donors in Vanuatu could be one way to support stronger action in this regard.

While it is not the intention of this report to provide a comprehensive picture of all activities within the Vanuatu Post (sources for these can be found on the DFAT website¹⁰), it is important to note the many

8 Vanuatu Annual Program Performance Report 2011 (AusAID, 2012)

9 Vanuatu Annual Program Performance Report 2011 (AusAID, 2012)

10 <http://aid.dfat.gov.au/countries/pacific/vanuatu/Pages/default.aspx>

ongoing initiatives which together support a more comprehensive and detailed picture of needs within the country. For example, as with all 15 countries to which Australia provides development assistance, Vanuatu is part of a situation and needs assessment, an extensive piece of work which sought to understand and identify both a Development Agenda and a Delivery Strategy for DEC in the Pacific. The findings emphasise the need to integrate DEC in order to achieve more resilient development outcomes that reflect the risk context. They also stress the need for comprehensive, systematic integration into Australia's development assistance strategies (Pratt and Hay 2013). Through 2013-2014 DFAT will be using these findings to develop individually appropriate work plans for each country. Although Australia is one of the most influential donors in Vanuatu, in the spirit of knowledge sharing and learning, heed could be taken of the experiences and lessons of other development partners. We turn to this next.

2.3 DEC integration: other development actors

Whilst Australia is by far the largest donor in terms of volume of aid, Vanuatu receives ODA from a number of donors. Each take slightly different levels of engagement with government systems and structures in-country (OECD 2011), and different approaches to the risk context in which they provide ODA. While the top five donors provide over 95% of Vanuatu's aid (OECD 2012), rather than focus on aid volume or mechanism, we highlight three donors because of their positive approach towards DEC integration.

2.3.1 World Bank

The World Bank is engaged in a number of different projects, but two in particular are important in the context of DEC integration. First, approved in 2012, the Mainstreaming Disaster Risk Reduction project aims to strengthen planning and tsunami preparedness in the main urban areas of Vanuatu (World Bank 2012). The project has a number of different components that support DEC integration¹¹ (ibid.). The most important of these is one that will devote US \$225,000 to strengthening institutional arrangements for the integration of DRR and CCA to support the mainstreaming of these issues into sectoral plans and processes (ibid.). Another component of the initiative seeks to develop probabilistic models for key hazards such as tsunamis, earthquakes, cyclones,

coastal and river flooding, and to develop the capacity of the Vanuatu Meteorological and Geohazards Department (ibid.). This aims to support a consultative process with the Ministry of Lands for the integration of climate change and risk information into planned reviews of land use, to avoid further development in high-risk areas. Other components of the project aim to develop tsunami warning systems, undertake monitoring and evaluation and establish systems and institutions for effective project management – all of which are helping raise the profile of DEC in the country (ibid.).

Another initiative by the World Bank, aiming to promote the integration of disaster risk management (DRM) and CCA is the Increasing Resilience to Climate Change and Natural Hazards project (which began in January 2013) (World Bank 2012a). It has four components, the first of which explicitly targets 'institutional strengthening' for CCA and DRM. This includes strengthening the NAB (including training and the development of manuals), building capacity at the NDMO and enhancing early warning systems (ibid.). The second component is focused on increasing community resilience by strengthening methods, processes and protocols. This is supported by community-based activities aimed at reducing vulnerability to climate risk, weather extremes and geohazards (ibid.). The third component promotes improved technologies for food crop production and resilience to climate change through the distribution of new crop varieties and methods of farming that withstand weather extremes and other impacts of climate change (ibid.). The final component focuses on increasing access to a secure water supply in a number of ways, including the installation of rainwater catchment and storage systems (ibid.).¹²

2.3.2 Asian Development Bank

Approved in December 2011, ADB's Port Vila Urban Development project will improve drainage, roads and sanitation systems in the capital of Vanuatu (ADB 2011). More specifically it will link sanitation, drainage and road development; build the capacity of institutions engaged in urban development;

11 *ibid.*

12 Much of this work stems from the broader Pacific region engagement of SPC on CC and food security – especially the utilisation of the Climate-Ready Collection of Pacific staple crops. This is regarded by many as another excellent risk management initiative. This highlights the importance of Posts being aware of the work the Australian aid programme supports in other countries and at a regional level in the Pacific to maximise opportunities for knowledge exchange.

raise hygiene standards; ensure the participation of youth and women in issues of community hygiene; and enhance the operation, maintenance and sustainability of drainage and sanitation services (ibid.). A key element of the initiative in the context of this discussion on DEC integration is that it will ensure all project designs mitigate adverse environmental impacts and are climate-proofed (ibid.). The project explicitly acknowledges the vulnerability of Vanuatu to climate-related hazards such as coastal erosion, tropical cyclones, floods, landslides and drought. It uses this to justify its drive towards climate-proofing infrastructure and supporting policy and institutional capacity-building for DRM (ibid.).

DEC issues have also been integrated into the Inter-Island Shipping Support project (approved in November 2011). This includes infrastructural investment in Port Vila and five other islands of Vanuatu, as well as a shipping support scheme to promote the provision of services to remote destinations across the country. Environmental sustainability and climate change are listed as two of the six main themes of the project, and discussions with key donor and government informants reveal that these concerns are being integrated in the design of infrastructure planned as part of this initiative.

2.3.3 SPC/GIZ

SPC/GIZ is a highly active development partner within Vanuatu in the context of supporting DEC integration into government plans and policies. Most of SPC/GIZ's work in this area takes place in the context of the Coping with Climate Change in the Pacific Island Region initiative (SPC 2010).¹³ This is a six-year joint programme between GIZ and SPC that began in 2009 and works across Vanuatu (ibid.).¹⁴ The initiative allows GIZ to draw on a broader technical skills base and experience across a wide range of sectors, while SPC is the key DRM knowledge hub in the region. In Vanuatu the initiative has five components: mainstreaming climate considerations and adaptation strategies; implementing adaptation and mitigation measures; sustainable tourism and climate change; sustainable energy management; and climate change and education (ibid.).

DEC integration is most explicit in the mainstreaming component of the project where SPC/GIZ are working to integrate action on climate change into local, national and sectoral policies of the Government of Vanuatu (NAB 2013). Crucially, the initiative is also aimed at integrating with ongoing DRR, environment and biodiversity activities (ibid.).

At the national level, the initiative is supporting action to mainstream climate change concerns into the Environmental Management and Conservation Act, the National Curriculum Statement, the Foreshore Development Act, the National Forest Policy, the National Livelihood Framework and various land use policies (ibid.). SPC/GIZ is also working with the Vanuatu Meteorological Service to develop Seasonal Climate Forecasts with corresponding adaptation advice to farmers (ibid.). In addition, mainstreaming is being carried out through training directors of government departments, journalists, agricultural extension workers and lecturers and teachers to understand and act on climate change issues (ibid.). Guidebooks and manuals on specific CCA techniques for agriculture and livestock have also been developed and disseminated. Importantly, SPC/GIZ has played a key role in the formation of the NAB on Climate Change and DRR. Since the Board was created, SPC/GIZ has continued to help with its organisational management and institutional strengthening (ibid.).

In summary, many development actors in Vanuatu are paving the way towards more systematic consideration of the risk context in which the country's development trajectory is situated. That said, greater consideration of DEC beyond individual projects is required. This is needed to ensure that a risk-informed approach is adopted beyond the remit of those charged with advancing CAA, DRR and environmental sustainability. For example, while SPC/GIZ's DRM work should consider DEC, so too should SPC's work in the health, agriculture and fisheries sectors, in ways that are relevant to those sector's objectives and goals.

There is much to be gained from donors taking DEC integration forward in a coordinated manner. In small countries such as Vanuatu, the narrow base of resources and personnel to engage with means that key individuals can drive processes forward. Therefore linking the work of multiple partners into a consistent approach and combined set of activities is essential, especially in regard to building institutional capacity (for DEC as much as any development issue).

¹³ For more on the SPC/GIZ programme see: https://www.spc.int/lrd/index.php?option=com_content&view=article&id=478&Itemid=44

¹⁴ And in 11 other Pacific Island Countries.

3 Examples of DEC integration in initiatives

3.1 Integration is already happening

Within the Vanuatu Post, aspects of DEC are already being integrated into many processes, initiatives and ways of working. Evidence gathered suggests that this most frequently takes the form of DRR and climate change being considered in focus sectors such as health, education and infrastructure (environmental management does not feature as strongly).¹⁵

Few of the examples we found – if any – were labelled as having integrated DEC. Instead DEC integration is part and parcel of a good development approach within Vanuatu. It is being adopted, in various guises, by Australian aid, the Government of Vanuatu and other development partners. Thus, there are ample illustrations of funded activities taking disasters, environment and/or climate change into consideration. For example, activities funded through the joint World Bank and ADB office employ strong safeguards to ensure that all investments are climate-proofed.¹⁶

In addition to the Banks, a core group of national and international NGOs are drawing on extensive international learning on the topics of resilience and adaptive capacity to find flexible ways to incorporate disaster risk reduction, environment and/or climate change into their work. It is under the banner of resilience that we found most evidence for all three components (disasters, environment and climate change) being taken into account, due to a more holistic approach being adopted in community-based initiatives.

Specific examples of DEC integration include:

1. *Adopting climate-proof design principles in a road-building initiative.* The Public Works Department of Vanuatu engaged technical

experts to help design climate-proofing measures for roads envisaged under Phase 1 of the Vanuatu Transport Sector Support Program (VTSSP). These measures included improved pavements, drainage and culverts. They also included realignment of roads to counter the impacts of coastal erosion and re-vegetation to enhance slope stability (by reducing the possibility of soil erosion from extreme rainfall events).

2. *The integration of an emergency preparedness component to the ongoing investment in telecommunications across the country.* Working in collaboration with the NDMO, Australian aid has supported the establishment of a short code ('166') to disseminate critical information prior to a natural disaster. It also serves as a tool for gathering needs assessments data in the aftermath of a disaster. This initiative also links with the national broadcaster to ensure widespread communication of early warning information, and includes a broadcast facility within the NDMO itself.
3. *Consideration of natural hazards, specifically earthquakes and hurricanes, in the design of a pilot hybrid school in Takara.* Working in

¹⁵ This is somewhat surprising given the significant effect that environmental factors have on health and infrastructure (and vice versa) and points to a possible area for strengthening and/or greater consideration in future programme design and management.

¹⁶ As one climate change expert noted – ‘a range of practical measures can be implemented to increase the resilience of infrastructure like bridges, ports and roads. However we still do not have a good knowledge of the actual climate change impacts that Vanuatu will face despite the improvements in the science that have been made in the past few years. It has been suggested that in reality you can enhance the resilience of investments but you can never really climate proof them – a term that is increasingly used in the literature. DFAT could consider therefore the term ‘enhanced climate resilience’ rather than ‘climate proofing’. Brian Dawson, Independent.

collaboration with the Ministry of Education and adopting architectural designs from the Solomon Islands, support has been found for the creation of a school building that straddles the need to align with the use of local resources but is cheaper and easier to build than conventional concrete and iron buildings. The hybrid school provides spin-off benefits for the broader community, including protection from earthquakes.

While there are other strong examples of stand-alone projects focused on disasters and climate change, we explore the three examples outlined above in more detail – because they offer the most in terms of learning about processes of integration.

3.2 Rural roads programme

The Vanuatu Transport Sector Support Program (VTSSP) is a long-term programme of support from the Australian Government to the Government of Vanuatu (VTSSP 2008). It is to be delivered over 10-15 years (starting in 2008) and will take place in three phases (ibid). Phase 1 aims at improving the reliability and safety of 124km of roads (more than 10% of the total road network in the country)¹⁷ (ibid). This will be achieved by using and strengthening local private sector capacity to maintain and build roads. The intended benefits of the project include improved access to services by the local population and increased economic activity through enhanced market access. Secondary benefits also include employment opportunities and increased capacity of the government as well as the private sector to build and maintain the road network in Vanuatu. Commenting on these secondary benefits, a member of the project team explained; *‘...this is not simply an infrastructure project, it is an ongoing exercise to build local capacity, we are using local labour and contractors so that they have the knowledge to maintain these roads.’*

3.2.1 Climate impacts on infrastructure

Once Phase 1 of the VTSSP had commenced it was seen that a number of points in the road network were vulnerable to the impacts of natural hazards, including those known to be exacerbated by climate change. More specifically, it was understood that high-intensity rainfall events (with concomitant soil erosion), flooding, intense wave action and coastal erosion carried the potential to disrupt the network and undermine the anticipated benefits from the

initiative. This is supported by data from climate scenarios that places ‘very high’ or ‘high confidence’ in Vanuatu facing sea-level rise, extreme precipitation and substantial increases in temperature. This apart, the country is already at risk from a range of hydro-meteorological disasters.

3.2.2 Climate proofing actions

To accommodate the projected climate change impacts, a number of specific adjustments were made to climate-proof roads built under the VTSSP (AusAID 2012c). These included increasing the thickness of pavements and building concrete pavements along steep slopes. Drainage was also improved by enhancing drifts, flood-ways, causeways and river crossings (in anticipation of increased future flows) and increasing the size of culverts. The selective realignment of roads in order to reduce the vulnerability of the network to coastal erosion was also undertaken (e.g. changing road height). Protection measures such as masonry walls were also built. Finally, slope re-vegetation was undertaken in order to enhance stability during high-intensity rainfall events and prevent soil erosion.

3.2.3 Opportunities and enablers: funding, knowledge, cost-benefit, individuals and institutional arrangements

A number of elements enabled the successful integration of climate change issues within this initiative. First, the availability of additional funding with which to undertake the retrofitting of roads was one of the most important elements that enabled climate-proofing. The team running the initiative accessed finances available under the International Climate Change Adaptation Initiative, making the case that retrofitting roads in order to deal with climate impacts was critical to helping Vanuatu adapt to the exigencies of a changing climate. Second, concurrently there was a limited but intrinsic understanding of the manner in which the road network was exposed to climate-related disaster impacts and was vulnerable to disruption. Discussions with the team identified the manner in which hydro-meteorological events impacted the roads. This combined with a deeper understanding of how the country was at risk of suffering grave losses from climate impacts (see World Risk Report 2012). Third, this intrinsic understanding was supported by the personal experiences of particular individuals. For example, a staff member who was steering the initiative had previously been charged with overseeing DRR programmes and was able to

¹⁷ <http://www.indexmundi.com/facts/vanuatu/roads>

gainfully contribute knowledge to this current brief. Fourth, relatedly certain staff members had strong understanding of the cost-benefit of undertaking climate proofing actions; as opposed to rebuilding roads after they had suffered damage. Discussions between Australian aid and counterparts from the Government of Vanuatu's Public Works Department revealed an understanding of the trade-offs involved in initiatives such as this. These trade-offs include the negotiation of challenges around building more roads without factoring in climate change or building fewer but climate-proofed roads. Discussions revealed that there was an understanding of how cheaper roads would be more expensive in the long run due to cost of maintenance and repairs. Fifth, the VTSSP was managed by the 'Governance for Growth' programme. This programme enjoys strong relationships and heavy integration with the Government of Vanuatu (as evidenced by the location of the programme office within the premises of influential Government ministries). Having the programme embedded to this degree allowed it to be flexible enough to: take advantage of windows of opportunity as they appeared; to reach out to relevant individuals; and, effectively push the case for integrating climate change concerns in the VTSSP.

3.2.4 Challenges and constraints: mandate, retrospective mainstreaming and government capacity

In addition to the opportunities and enabling factors which presented themselves, there were challenges and constraints that the initiative had to negotiate. First, there was no clear mandate for mainstreaming climate change within infrastructural initiatives in Vanuatu.¹⁸ This meant there was no imperative deriving from Government infrastructural policies or organisational guidance on undertaking initiatives in the country (e.g. the Partnership for Development). This left the onus of justifying the need for mainstreaming climate change squarely on this initiative alone and those steering it. Second, partly as a result of the absence of an institutional or policy mandate, it was clear that climate-proofing was not factored into the original design, and specific adaptation measures were added retrospectively. The investment of time and resources in acting retrospectively to integrate climate change issues could have been minimised had DEC been considered from the inception of the project. Third, another challenge was the low capacity within the Government of Vanuatu's

Public Works Department (PWD) to engage with climate change mainstreaming. Although there was some understanding of the manner in which road networks were impacted by hydro-meteorological events, there was no understanding of how particular actions could be undertaken to reduce vulnerability to these (for instance, there is only one individual within the PWD with technical knowledge of environment and infrastructure). Therefore, an external adaptation consultant had to be located and retained to design the measures described earlier in this section. Explaining this challenge during an interview, a member of the PWD said '*...a lot of the time we don't have the relevant information and even when we do we're not absolutely sure what to do with it.*'

The final point is not unique to Vanuatu, but symptomatic of a number of common challenges across the Pacific. Most line ministries and departments have had very limited exposure to climate change and disaster issues (in terms of policy and programming) and there is a significant amount of capacity-building and knowledge transfer that needs to take place to enable stronger understanding and action on integration. Thus within small island states it may not be possible to have and retain extensive knowledge, and awareness on DEC issues may – to some extent – always depend on external technical assistance over the near-term.

3.3 Emergency preparedness and telecommunications

3.3.1 Telecommunications and early warning: '166' short code, SMS and Vois Blong Yumi

The Australian Government's aid programme has invested in a range of activities aimed at enhancing emergency preparedness within Vanuatu. This includes strengthening the prevalence and accessibility of early warning for hazard-related disasters through telecommunications, establishing a short code ('166' number) and building the institutional capacity of core Government departments for disaster preparedness such as the NDMO.¹⁹

¹⁸ This is not unusual within the Pacific where climate change is commonly regarded as not well integrated into sector policies and strategies. This highlights the importance of an appropriate enabling environment in the recipient country to support DEC integration uptake (Review comment: Brian Dawson, Independent).

¹⁹ NDMO Emergency Short Code Project (2013).

In partnership with the NDMO, a ‘166’ short code number – which can be used by the public to access early warning information in advance of any disaster either via voice or SMS – has been established. The system – which is currently being piloted – has the potential to deliver mass early warning information to a highly dispersed population frequently affected by a range of diverse risks. The initiative aims not only to deliver ex-ante information, but to be used as a means to collect needs assessment data after a disaster event. Through Community Disaster Committees, members can submit critical information through the SMS function.²⁰

Using Telecom Vanuatu Limited (TVL) and Digicel networks, the telecommunications approach to early warning, public information dissemination and data collection taps into the recent boom in mobile phone usage within Vanuatu. It also supported increased equity in access to information by increasing connectivity to outer islands.

The telecommunications and early warning projects contribute to a broader objective within the Australia-Vanuatu Partnership for Development 2009, which seeks to enable broadcasters to deliver development information across the country. Vois Blong Yumi (VBY) is a project which came to completion in May 2013 and supported the Vanuatu Broadcasting and Television Corporation (VBTC) to maximise its potential as a national broadcaster.²¹ Managed by the Australian Broadcasting Corporation (ABC), Radio Vanuatu in particular was identified as a key actor – as the only medium with potential to access the whole population – through which to deliver development information. As such, the agency sought to develop and strengthen the outreach of Radio Vanuatu to the most vulnerable populations.

3.3.2 Integrating DEC

Within the short code and SMS project, efforts were made to bring together a range of important stakeholders, both service providers and recipients. For example, during the field research for this case study a simulation exercise was being carried out to test the initiative, bringing together the NDMO, Port Vila-based radio stations and local schools.²² This helped trial the system in a way that also sought

to give other actors experience of what actions are necessary in times of crisis.

The VBTC aimed to support poverty reduction through awareness raising and education by broadcasting programmes on key sectors such as health, education and agriculture. It was also anticipated that this could support improvements in service delivery and economic growth, through the Radio Vanuatu service. While DEC was not an explicit focus of the programme, where relevant topics have been identified, issues associated with disaster, climate change and the environment have featured within the context of radio programmes and call-in chat shows. Interestingly, during the latter stages of implementation, disaster response management was added as a new area of focus for the VBY project.

3.3.3 Opportunities and enablers

The barriers that remain in fully operationalising the SMS and short code system are reflective of the remoteness of the Vanuatu islands. A significant amount of research has been undertaken documenting the advances but also the remaining challenges in using mobile telephones as a means of communication in remote areas (O’Connor 2012 *et. al.*). In addition to fundamental barriers such as lack of signal, other issues include high tariff cost and difficulties in cost and accessibility of electricity needed to recharge batteries.

While the project itself does not explicitly integrate climate change, there is opportunity to think through the way that the profile of hazards within Vanuatu may change in the future, and the types of early warning and preparedness systems that may be required to address this change.

Within the VBY project, disaster response management was introduced in the programme part-way through; harnessing the opportunity to use the radio facilities and expertise to leverage greater impact through the use of national radio. This took the form of establishing an alternative broadcast facility within the NDMO office, to support the dissemination of information (both early warning and response-related) in times of national emergency. Established in 2013 and trialled throughout the course of this case study research, the alternative facility sought to improve the efficiency of the communications as well as provide an alternative in case of damage to Radio Vanuatu’s VBTC studios.

20 NDMO Emergency Short Code Project (2013).

21 Vois Blong Yumi Activity Completion Report (2013) ABC International Development.

22 NDMO Emergency Short Code Project (2013).

The importance of telecommunications during earthquakes

After a massive earthquake hit... *'Everyone was on their phone: ringing their loved ones, ringing their offices, ringing those that mattered. The World Bank had worked with the Government of Vanuatu for some time in the area of telecommunications reform, with Australian Government support. The phrase telecommunications reform does not do the reality justice: this support helped make phones and calls accessible and affordable to most of the population. At this moment in time, I alongside everyone else on that hill was a beneficiary of such support, and we were so grateful. We could make the calls we urgently needed to make, to reassure people that we were okay, to get reassurance from people they were okay, to check on damage, to ring for advice on the threat of a tsunami. This wouldn't have been possible a few years ago'.*

Aleta Moriarty (2010) blogs.worldbank.org

3.3.4 Challenges and constraints

In the SMS and short code project, the Australian aid programme played a critical role in supporting the telecommunications regulator to liaise with TVL and Digicel in order to obtain the necessary authorisations and technical requirements for the system. This support – a form of institutional capacity-building – has been essential to enable the regulator to become a mediator capable of managing any future issues that may arise with the operators.²³ Through the Australian Government funded project, and more critically the technical and peer support provided, the telecommunications market was opened up. This not only increased competition between services providers but as a result helped to reduce the cost of SIM cards, making mobile phones more affordable and accessible. It was estimated that the introduction of mobile telephony has contributed to a 2-3% GDP growth in Vanuatu thanks to phones helping link traders to the market, and increasing access to market prices and shipping schedules, to name but a few examples.²⁴

The short code, SMS and VBY initiatives contribute towards strengthening the telecommunications services within Vanuatu. They also align with broader aims across the Pacific to strengthen the region's broadcasting and emergency systems. For example, in September 2012 AIDB/PACMAS (Asia Pacific Institute for Broadcasting Development/Pacific Media Assistance Scheme) hosted a regional workshop on Pacific Emergency Broadcasting Systems.²⁵ This event stemmed from a Media Leadership in Crisis, Disaster and Emergency²⁶ conference, where Pacific media executives co-created a regional roadmap towards developing more systematic disaster management plans within the region.²⁷ The VBY project is also an

effective example of how multiple gains can be made through continued investment in service delivery, while being connected to existing and future needs; namely the prevalence of natural hazard-related disasters.

The positive outcomes of projects such as these are being observed. As a witness to a 7.5 Richter scale earthquake in Port Vila explains, the value of telecommunications reform is invaluable to the protection of lives and livelihoods (see Box 1).²⁸

3.4 Education: Takara hybrid school and curriculum

3.4.1 Takara hybrid classroom

The support the Australian Government provides to education programmes in Vanuatu is one of the cornerstones of its Partnership for Development (2009). As part of this, the agency in collaboration with the Ministry of Education is engaged in building schools across the country. One such school – the hybrid classroom in Takara – provides a poignant example of the manner in which DEC issues are integrated within initiatives. The hybrid classroom initiative arose from a review of school construction in Vanuatu which found that concrete

23 NDMO Emergency Short Code Project (2013).

24 <http://www.youtube.com/watch?v=d0pMNR4-Bi8> 'Australia is supporting Vanuatu to improve its telecommunications' YouTube.

25 In Samoa.

26 In Brisbane.

27 SPREP, Australian AID, PACMAS, AIBD and SOPAC. AIDB/PACMAS Regional Workshop on Pacific Emergency Broadcasting System. Project Outline. 17-19 September 2012. Apia, Samoa.

28 <http://blogs.worldbank.org/eastasiapacific/earthquake-in-vanuatu-highlights-importance-of-telecommunications-reform> Blog 'Earthquake in Vanuatu highlights importance of telecommunications reform' (2010).

building construction was viewed as technically difficult and expensive. The new hybrid classroom was built to supplement an older building on the same site. The older structure was poorly ventilated, suffered from high indoor ambient temperature and poor lighting, and overall was in a state of disrepair. Therefore, a new structure was planned and a decision was reached to use innovative methods and materials in its construction.

3.4.2 Innovation, sustainability and community buy-in

The classroom employed labour sourced from local communities and a team of 12 residents (including a foreman) who were responsible for construction. The services of local carpenters were built upon, as younger members of the community acquired new skills through their participation in the construction, learning from more experienced workers. Not only did the sourcing of labour from the local area enhance efficiency and cost effectiveness, but it aimed to secure a sense of community ownership regarding the new structure. Moreover the community also helped in the transportation of construction materials. Sourcing sustainable and locally available materials was another innovation undertaken in the construction of this hybrid classroom. The roof of the building was made with the Natangkura leaf (sourced from Takara and two neighbouring communities), and the windows were made with woven bamboo (sourced from a neighbouring community) and local Kwila timber (brought in from Port Vila). These innovations led to the hybrid classroom being extremely cost-effective. The building cost VT 5.45 million (AUD \$60,787) – VT 1.05 million or AUD \$11,712 less than originally anticipated. In comparison, a standard concrete structure serving the same purpose in the same region would cost approximately VT 10.5 million (AUD \$117,138), leading to substantial savings of 48% (Kaunitz 2012).

3.4.3 Innovation for engaging with DEC

An additional (planned) outcome of the innovative design is the ability of the classroom to withstand a range of disasters and climate impacts, primarily earthquakes and cyclones. This happens in a number of ways. First, the frame of the hybrid classroom was built with segments of timber bolted to each other providing greater structural flexibility during earthquakes. Due to the use of a substantial number of light-weight construction materials (e.g. roof panels made from the

Natangkura leaf) there is less danger of school children receiving injuries during the earthquakes that strike the island regularly. Second, the use of timber meant concrete was avoided. This is important as the quality of local concrete is questionable at times (mainly due to contamination from crushed coral in the mix), which impacts the overall robustness of the building. Third, the construction of the hybrid classroom involved local builders, carpenters and workers and drew on their expertise in design and construction. This impacted the quality of the building positively as those working on the building were familiar with the tools and techniques being applied, in contrast to concrete constructions that employed exogenous western design standards that were less familiar to local workers. Fourth, the use of locally sourced material is an important step in ensuring the sustainability of the building. In the event of a disaster and subsequent damage to the hybrid classroom, materials for repairs are readily available with communities in a position to replace roof panels, windows and walls with relative ease. Fifth, the well-ventilated design and the use of a roof made from natural materials (as opposed to metal or concrete) has meant the hybrid classroom is substantially cooler and better able to function than standard structures. This includes better anticipated performance in the face of rising temperatures and heat waves that climate change is set to bring – a benefit that was readily identified by the students and teachers at the school. For instance, Marksong Johnny, a 12-year-old pupil at the school, responded when asked why he liked the school building that ‘...we used to feel very hot in the other building, but this building is nice. I like coming to school!’

3.4.4 Opportunities and enablers: cost-effectiveness, individual experience and reviews

Although the hybrid classroom is an example of DEC integration within a specific initiative, the driving force behind it was not DEC integration. Discussions with key informants revealed that cost effectiveness was the main reason for the innovations undertaken in the construction. There was ambition to experiment with new designs, using local labour and materials to mitigate transportation costs and ensure lower recurring expenditure on maintenance. What provided the impetus for DEC issues to be mainstreamed was the sum of a few secondary factors. Important

amongst these were the interests and experiences of the architect, David Kaunitz. He had been involved in school construction projects in a number of disaster-prone countries across the Pacific region, including most recently in the Solomon Islands, where he had observed the devastating impact of tsunamis (2004 and 2013) on school buildings. Here expensive but poorly built concrete structures were damaged by the tsunami and local communities did not have the expertise or financial resources for immediate repairs. Therefore, he understood the need to use locally sourced material and labour for the construction of school buildings that could firstly withstand damage and secondly, be repaired swiftly by local communities without the need for expensive materials from afar. This apart, the initiative also underscores the value of timely official reviews, assessments and organisational learning. It was from such processes that doubt was cast on the value of concrete constructions, leading to an acknowledgement of the need for change. Overall, the new classroom was very popular in the community. Describing the day it was opened, Daniel the Headmaster said, ‘...students were so excited to enter this building. They had big big smiles on their faces!’²⁹

While this example does not show DEC as the sole or primary rationale behind the hybrid classroom, it does show that increasing resilience makes sense in an overarching socio-economic development approach, irrespective of climate change.

3.4.5 Challenges and constraints: managing expectations and trade-offs in engaging with DEC

The classroom initiative and the integration of DEC certain important challenges that warrant further consideration. Amongst these was the Government of Vanuatu’s expectation of more expensive concrete schools. Key informants implied that traditional school structures carried greater political kudos for particular ministers and government employees, as they are seen by the communities as visible symbols of development and progress. Discussions with students and teachers

also revealed that, while they clearly thought the hybrid classroom was a major improvement on the older school structure in Takara – as it was cooler and had better furniture and equipment – they considered traditional concrete structures to be more durable. This was exacerbated by the lack of harmony on donor efforts as, according to those interviewed, other donors such as the European Commission were providing aid to build more expensive concrete classrooms while the Australian programme was considering the adoption of this more cost-effective technology.

The hybrid classroom in Takara also revealed that at times there can be trade-offs between the elements of DEC integration. While the classroom was optimised to withstand earthquakes, through the use of lightweight and flexible building materials, these very qualities led to certain inadequacies in its ability to withstand cyclones. When asked how safe he felt during earthquakes in this building as opposed to concrete structures, the Headmaster said he felt 100% safe in this building and only 80% safe in concrete structures. But, on being asked the same question about cyclones, he said that he felt 90% safe in this building and 100% safe in concrete structures. Therefore, even though the hybrid classroom integrated disaster issues appropriately (earthquakes), it could not do this in equal measure for impacts from climate change-related weather events (cyclones).³⁰

Achieving consistent approaches amongst donors is a key challenge in the Pacific. Looking forward, there is a strong opportunity for better coordination and alignment to be a central component of DFAT’s DEC integration approach, in particular, in those countries where it is a dominant development partner. In recent years this has been attempted in a number of countries across the Pacific and, despite being a challenging task, it is an essential and necessary one.

29 More on this, see: <http://www.dailypost.vu/content/takara-spearheads-hybrid-building>

30 This is based on perception. It is not clear whether the actual structures are more cyclone susceptible than the concrete structures.

TABLE 1

Summary of findings from case studies

Initiative	Overview	Opportunities and Enablers	Challenges and Constraints
Rural roads	Adoption of climate-proofing design principles in a road-building initiative.	<ul style="list-style-type: none"> • Funding • Understanding of climate impacts • Personal experiences of staff • Cost-benefit • Integration with national government 	<ul style="list-style-type: none"> • No clear mandate • Retrospective climate-proofing • Capacity deficits in partner organisations
Emergency Preparedness in telecommunications	The integration of an emergency preparedness component to the ongoing investment in telecommunications across the country.	<ul style="list-style-type: none"> • Policy framework • Strategic partnerships • Changes in economic landscape 	<ul style="list-style-type: none"> • DEC not an explicit focus • Geographical remoteness of parts of the country
Hybrid classroom	Consideration of natural hazards, specifically earthquakes and hurricanes, in the design of a pilot hybrid classroom.	<ul style="list-style-type: none"> • Cost-benefit • Interests and experiences of key staff • Programme reviews and organisational learning 	<ul style="list-style-type: none"> • Expectations of national government • Trade-offs in integrating disaster risk reduction, environment and climate change adaptation and mitigation equally

4 Synthesis

4.1 Operationalising DEC

There are different options for operationalising DEC. These include: designing and executing discrete projects that help engage with the impacts of climate change, environment and disasters directly (e.g. the NGO Climate Change Adaptation Programme³¹) through to integrating DEC concerns in initiatives dealing with other issues (e.g. climate proofing roads built under the VTSSP).

Both entry points have advantages and drawbacks. First, discrete projects have attached and dedicated funds. It is normally easier therefore to monitor progress against specific indicators and targets. These kind of projects fitted well with the former institutional architecture. Conversely, mainstreaming DEC is understood to make outcomes of programmes more sustainable. This suggests DEC should be embedded into institutional processes and therefore made less prone to fluctuations in discrete funding streams; and that a variety of staff should assimilate an understanding of DEC into their functions at Post. This requires a longer-term institutional approach with changes to the current governance (and reward) architecture across the institution.

Second, steering successful change processes for the effective integration of DEC entails the negotiation of an important balance between focusing on ensuring an amenable institutional environment versus leveraging the potential of particular individuals who could act as champions for integration. A number of informants applauded recent government mechanisms (e.g. the NAB) established to support integrated approaches, but indicated that these are predicated on the continued involvement of particular individuals. Therefore, even though individuals were seen to

be fundamental to such processes, building robust systems for integration was understood to be equally important.

Third, integrating DEC into development initiatives was at times seen to involve a choice between ‘doing more’ business as usual or ‘doing less’ but with DEC issues integrated. Looked at in another way, this trade-off could also be encapsulated as ‘sustainability and effectiveness’ versus ‘quantity and extent’. Informants explained that at times they were faced with the choice, for example, of building a longer road network that is not engineered to perform under a variety of climate and disaster scenarios or building a shorter one that is. For more trade-offs see Box 2 (overleaf).

4.2 Opportunities to strengthen DEC integration

4.2.1 Help staff improve the quality of work and outputs

- Recommend that all staff undertake the mandatory e-learning on DEC integration, because this has been effective at increasing people’s understanding of the DEC-related marker questions within AidWorks.

Action: managers to assist staff to make time for the three-hour training. This is relevant for all individuals whether working at Post, regionally or in Canberra.

³¹ The NGO Climate Change Adaptation Programme is a funded project running from 2012-2015, comprised of a consortium of NGOs led by Oxfam. The initiative seeks to support adaptation through strengthening of capacity, policy and programming within Vanuatu (CBCCA, 2012). More information on climate change work can be found here: <http://aid.dfat.gov.au/aidissues/climatechange/Pages/adaptation.aspx>

BOX 2

Weighing the trade-offs

Research conducted at Post revealed that DEC integration entails the careful negotiation of a number of trade-offs. Ensuring that funded initiatives are sensitive to issues of disaster risk reduction, environment and climate change sometimes requires compromising on certain issues as others are accommodated. Below are three illustrative examples.

First, as noted above, DEC integration could entail a trade-off between 'doing more' business as usual or 'doing less' but with DEC issues integrated. For example, in the context of a road-building initiative, DEC integration could mean that project designers are faced with the choice of building fewer roads that function in a variety of risk/hazard conditions or building more standard roads that are not designed with DEC in mind.

Second, at times there can be trade-offs between integrating issues of disaster risk reduction, environment and climate change equally within initiatives. Many times integrating one of these components of DEC may come at the cost of integrating either one or both of the other components. For example, the hybrid classroom in Takara, Vanuatu (see section 3.4), through the use of light-weight building materials, is able to withstand earthquakes successfully; at the same time, this feature renders it more vulnerable to cyclones.

Third, staff designing projects could also be faced with the choice of meeting immediate needs as swiftly as possible or being more strategic in their approach to ensure sustainability and durability. For example, this could result in a decision around whether it is important to expedite the establishment of a health clinic to deliver vital vaccinations or be more prudent to design the clinic with DEC integrated in order to ensure that it continues to deliver health benefits for years to come (that accommodate changes in disease patterns as a result of climate change) and withstands a range of disasters, environmental hazards and climate impacts.

There is no 'silver bullet' for negotiating these conundrums, but awareness of the manner in which DEC integration can sometimes involve hard decisions is an important step in the right direction.

BOX 3

A tailored approach to learning

The Evaluation Capacity Building (ECB) programme is a five-year institutional change programme aimed at improving aid effectiveness, efficiency and accountability. Here evaluation experts provide focused advice to staff on improving monitoring and evaluation for funded initiatives. This initiative was identified as a strong example of how the capacity of staff at Post can be built in a way that directly aligns with their day-to-day activities. The success of the approach led many interviewees to suggest that this could be a viable model for how learning about DEC integration could take place for agency staff. For example, first, staff at Post who had participated in ECB said the programme does an excellent job of organising training sessions that are sharply focused on particular aspects of monitoring and evaluation. This allowed individuals to accurately gauge whether each individual session was of relevance to them or not, ensuring that staff (who are already time poor) only engaged if they felt it was going to be of direct benefit. Second, the ECB not only provided carefully defined learning modules but included a 'help desk' service. This allowed staff at Post grappling with challenging monitoring and evaluation tasks to swiftly acquire advice and assistance in working around problems. Third, ECB training sessions and refresher modules were provided repeatedly and at regular intervals. The iterative nature of the capacity-building programme reduced the need for staff to absorb large amounts of information in one go. The model also allowed them to gain knowledge of key monitoring and evaluation issues of immediate relevance to their work at different times that gradually led to an overall increase in their capacity. Taking heed of the positive elements of the ECB project suggests that capacity-building around DEC should aim to be focused and iterative, and should strike a careful balance between knowledge dissemination and mentoring.

- Recommend that sector specialists (based in Australia) are clearly defined in terms of their role, and the support they can offer staff at Post to integrate DEC into ongoing work programmes. This would improve understanding of who the ‘go to’ people for DEC are in Canberra. This is necessary because where ‘go to’ people have been known and available, DEC has been effectively considered in the design of initiatives; and it has helped interventions pass through peer review processes more smoothly. **Action:** Pacific division and thematic areas need to ensure consistency and coherence in the support they can provide, and to communicate this, to staff at Post. Where this is unclear, Post should request greater clarity.
- Support more Post-to-Post learning and training on DEC integration through Pacific-wide workshops (targeting individuals at Post) to promote cross-country learning between staff. This is a proven mechanism to share experience and foster ideas between staff, e.g. in the humanitarian team’s pre-cyclone workshops. **Action:** staff at Post to be more proactive in driving demand for technical and financial support from Canberra and the Suva regional hub on DEC integration.³² And Post to take the lead in shaping the contents of those workshops and in supporting attendance. This will be most effective where individuals of a similar experience, skill set and level can be brought together, and should include events specifically targeting senior management.
- A critical balance needs to be reached between accompaniment processes (where an expert is on-call to provide targeted advice on DEC issues) and skills transfer (where staff capacity is built). External support can be brought in to backstop with advice and expertise, where this exceeds the support that can be provided, from other Posts, Canberra or the Suva regional hub. Based on positive experiences with Vanuatu’s (and Indonesia’s) Evaluation Capacity Building Programme – which seeks to improve the quality and effectiveness of staff’s existing work load – a DEC Capacity Building project could be developed (see Box 3). **Action:** this would require dedicated funds from Post, Suva regional hub and/or Canberra to support such an initiative, and commitment from staff to ensure that value is added to existing ways of working.

4.2.2 Identify and support champions of DEC integration

- It is necessary to be realistic about the level of engagement that staff can have, and to support individuals to ask the right questions to others (who are experts or champion integration). Explore options for having a DEC Focal Point. If this is desired, management support will be required to enable a staff member to become a DEC Focal Point person; someone who has a passion for integration issues and can increase their skills and capacity to be a support person at Post.³³ This individual can then provide first-hand support to colleagues, offering advice and guidance that are context specific for Vanuatu. **Action:** in addition to having an individual focal person supported by their management at Post, Canberra are required to facilitate an effective and engaging focal point network to ensure interest and momentum for DEC are sustained. Furthermore, mechanisms for ensuring that individuals who transfer positions continue to apply their learning within their new role will help to make certain that the DEC Focal Points act as a catalyst for DEC uptake throughout the agency.
- Encourage staff to set personal DEC integration objectives into their IPPs, to ensure that staff create space within their work plans to act on integration. This can be tied to broader country or regional goals and/or targets, the exiting DRR policy and Comprehensive Aid Policy Framework (CAPF) targets, or compliance with the Environment Protection and Biodiversity Conservation Act (EPBC Act). Embedding DEC into broader objectives (e.g. the priority areas of the Partnership for Development) will make integration easier as it will already be part of the targets that individuals are trying to achieve.
- Request that new staff coming to Post have a basic level of understanding of DEC integration, as it explicitly relates to the Vanuatu context.³⁴ This could entail staff working with Australia-based sector specialists and thematic areas on disaster risk reduction, environment and climate change, and

³² This will be most successful in the context of broader institutional shifts towards greater acceptance and value placed on DEC integration, to give staff the confidence and reward for raising DEC issues, without seeming contentious for bringing up ‘problems’.

³³ This will be most successful if the individual at Post is (or is complemented by) a high grade staff member who has a better developed set of DEC skills to support the integration of DEC into programming. In addition this needs to become part of formal work agreements to enable dedicated time to be allocated to the task of integrating – until it becomes standard practice.

³⁴ In addition to basic DEC training as part of standard induction processes.

Pacific DEC specialists prior to arriving at Post. Action from Canberra could include monitoring the new postings when released and being readily available to provide the necessary knowledge transfer and technical resources. In addition, senior management within Post in collaboration with the Performance and Quality Division in Canberra could consider making the request to have DEC capacity-building mandatory in pre-posting training.

4.2.3 Build the capacity of staff to be able to appropriately judge when DEC needs to be integrated

- It is paramount that staff are supported to be able to appropriately judge when, and to what extent, issues of DEC need to be factored into initiatives and activities. In order to achieve this, sharing existing tools and guidance is required (outputs from the Advancing Integration project will help with this). **Action:** individuals (at all levels) should actively seek tools and guidance on the intranet, through the DEC Focal Point webpage, and thematic staff from the Pacific Division and climate change and environment and disaster risk reduction teams should proactively share guidance that is available. Evidence suggests that staff who have read the DEC guidance – in particular the text box examples of what integration looks like in practice – have a much clearer understanding of how to undertake integration.
- Greater cross-sector fertilisation of DEC is required, to support more efficient integration. For example, sector specialists and advisors in Canberra (of non-DEC sectors) should be supported to better understand the relevance of DEC to their sector. Related to this is the need for greater recognition of integration efforts that are not labelled as such. Peer review panels should support Posts by ensuring that cross-cutting issues are seamlessly included without needing to have separate sections. Documented examples of DEC integration in practice can help to communicate what these may look like. This is critical, as experiences of gender-mainstreaming over the past 20 years suggest that a compartmentalised approach to integration would only serve to feed a tick-box approach. Thus, champions of DEC integration must be able and willing to recognise

where integration has been effective without the term ‘DEC’ being used, and not seek to make those terms explicit.³⁵

- A position needs to be taken on DFAT’s approach to the trade-offs that arise in the operational pursuit of DEC integration; to support staff in knowing how to prioritise and weight the different options available to them. For instance, within the Vanuatu case study we found numerous examples of trade-offs. **Action:** while the ultimate decision on where the trade-off should lie is a country-based decision, both the Pacific Division and Suva regional hub should seek to make some definitive suggestions about where the recommended cut-off point is. This need not be a policy or formal position, but could be a set of recommended ‘cut-off points’ that Posts can use to help them make decisions when operationalising DEC in practice.

For example, an independent climate change expert suggested:

*‘...the key issue is first highlight and understand the DEC issues, identify appropriate response measures and then undertake a cost-benefit analysis to see whether it is worthwhile – if it is not cost effective then maybe the project should not proceed at all. It is no good to implement an activity if it is known to be highly vulnerable to hazards. This requires a value judgment and it should be solely the decision of post in my view – when in doubt seek specialist advice’.*³⁶

4.2.4 Support more systematic and systemic approaches to DEC integration

- Include DEC indicators produced as part of the Advancing Integration work in relevant performance targets (e.g. Performance Assessment Frameworks), to help build an evidence base for improved development outcomes as a result of DEC integration. Only through tracking inputs, outputs and outcomes will it be possible to build a context-specific evidence base of the qualitative and quantitative value of DEC integration, and improved development outcomes.

*‘Experience in the Pacific suggests that DEC measures need to be sustained if they are going to protect livelihoods, but often they seem to disappear or not be sustained a few years after the project has been completed’ (Independent climate change expert).*³⁷

³⁵ Individual judgment will need to be made on when – and why – it may make sense to make DEC explicit, if it has not automatically been done.

³⁶ Brian Dawson, Independent climate change expert (reviewer for the report).

³⁷ Brian Dawson, Independent climate change expert (reviewer for the report).

- Integrate DEC considerations into the priority areas of the renewal of the Partnership for Development, thus making it a core part of people's day-to-day priorities. This would help DFAT's initiatives align with the new institutional environment within the Government of Vanuatu where the NAB and the new Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management are poised for the uptake of integrated initiatives. An appetite for DEC integration is an important prerequisite for action, and this is present within Vanuatu. Mirroring this appetite within DFAT's approach is advisable because there is an obligation under the Paris and Accra Declarations to support government priorities. **Action:** undergo a process to consider how DEC affects the Partnership for Development priority areas and embed DEC considerations into those actions.
- Undertake a Theory of Change for DEC integration at Post; to understand what effective DEC integration would look like, and the realistic steps required to achieve this. This would be focused on a) determining the modifications needed to Posts' organisational systems in order to effectively integrate DEC (e.g. reporting, monitoring and evaluation etc.), and b) consolidating and understanding the opportunities for, and gaps in, integrating DEC into the content and structure of programmes. This has proven valuable in other Posts, helping them to develop a consolidated and co-owned vision of integration, with specific and clearly identified activities moving forward. **Action:** senior management at Post to champion such an activity, with support from the Suva regional hub and/or Canberra brought-in to help facilitate the process (linking in with the existing efforts in Canberra to develop a specific understanding of Theory of Change. Other possibilities for maximising learning through a Theory of Change process would be to invite senior management from a neighbouring Pacific island Post to act as observers to the process, to see if they want to replicate the Theory of Change in their own country office.

5 Conclusions

5.1 A spectrum of approaches and options for integration

Some of the opportunities to strengthen DEC integration presented in the previous section require a relatively low investment of financial resources, staff time and capacity, while others require higher amounts of these three inputs. At the same time, some opportunities require only minor or incremental changes in organisational protocols and procedures whereas others can only be exploited through substantial organisational change. For example, ensuring that staff at Post complete the mandatory e-learning on DEC or that staff seek out DEC integration tools already in circulation requires a low intensity of investment (of resources, time and capacity) and does not require any organisational changes. Other activities, such as organising Post-to-Post learning on DEC issues or ensuring that staff create DEC integration objectives in their IPPs, will require a small budget, time contributions and a degree of modification in existing procedures and protocols. More substantive changes, such as positively influencing the policy environment by integrating DEC in a Partnership for Development or by establishing an accompaniment process for skills transfer (such as the ECB programme – see Box 3) would require substantial investment as well as shifts in organisational processes.

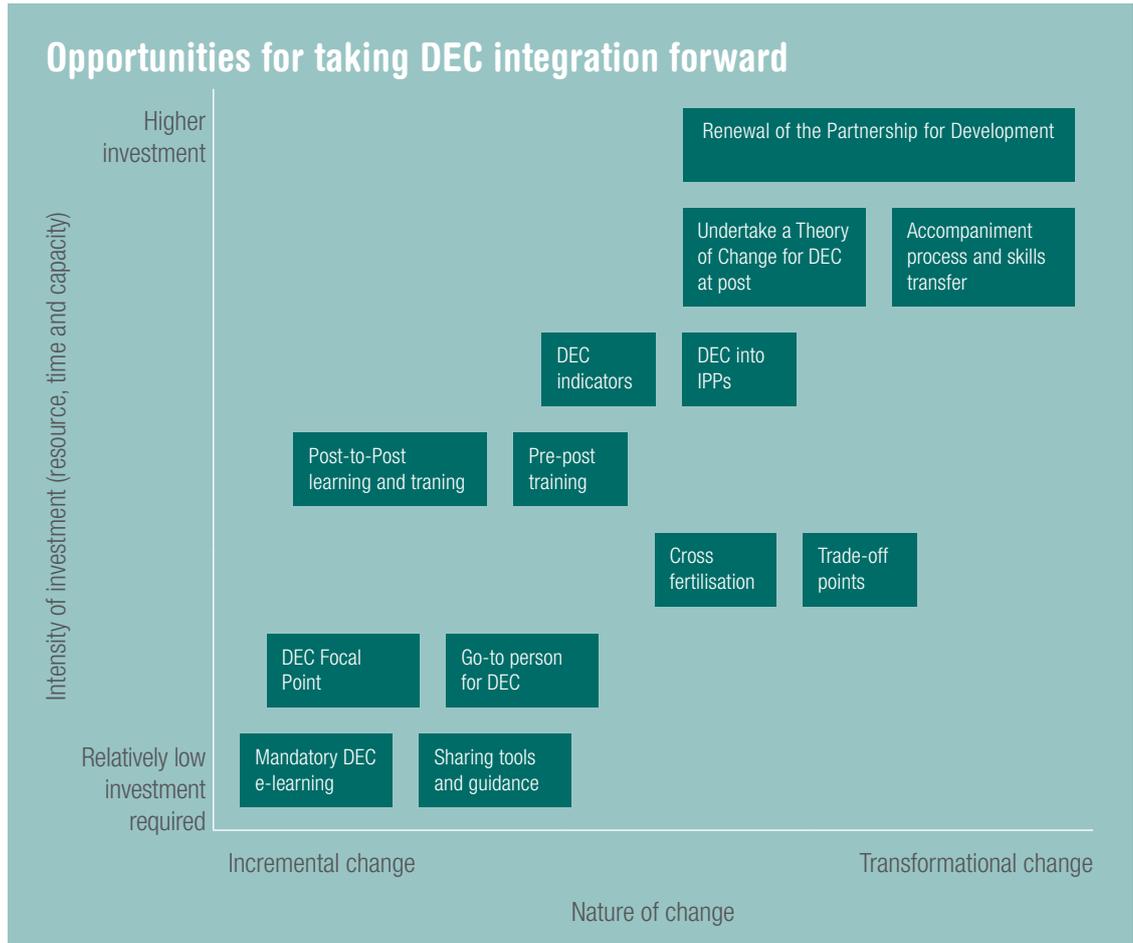
Figure 1 (overleaf) encapsulates the opportunities discussed in section 4 and gives staff examples of a range of levels of DEC uptake. As such, this presents a strategic framework within which to conceptualise opportunities to strengthen DEC integration.

5.2 Opportunities across scales

Even though Figure 1 presents a framework from which to consider the possibilities for DEC integration, it is important to keep in mind that making the most of these opportunities is not only the responsibility of staff at Post but also requires the participation of staff at the Suva regional hub and in Canberra. Table 2 builds on this to demonstrate how the action points in section 4 require the collaboration of staff across scales. It also takes a strategic approach, by categorising the recommended actions as basic (i.e. the minimum action that should be taken towards DEC integration which is likely to result in partial impact), intermediate (i.e. action points that should be strongly considered by staff that are likely to have a longer-term/more extensive influence) and advanced (i.e. activities that carry the potential to transform the DEC integration landscape).

For example, there is an existing organisational mandate for the DEC Focal Point network. Therefore one of the basic actions that staff at Post could undertake would be to identify and appoint an individual who could become their DEC Focal Point. Regional hubs could support this by compiling and regularly sharing a list of DEC Focal Points in the region to help consolidate this network. Canberra could ensure that DEC Focal Points appointed at Post are integrated into the existing, system-wide network of focal points and that the network is kept alive through regular networking events, capacity-building and coordination. At the other end of the spectrum, the establishment of an accompaniment process – where technical support on DEC issues is provided while staff capacity is built – would fall into the advanced category, as it holds the potential to lead to substantial uptake in DEC integration. This

FIGURE 1



would require dedicated funds as well as staff time from Post; regional hubs can maximise the influence of in country processes by linking with other Posts who could also benefit from such support. Canberra can potentially help co-fund this activity and locate the resources to lead the accompaniment process.³⁸

This report has underscored the importance of integration and the manner in which it can be undertaken. Before concluding, it is important to stress that our research reveals it is not necessary to integrate DEC into all investments, but consideration of the appropriateness of DEC is required in order to make that decision. In a time-constrained working environment, deciding where to put resources (time and financial) into integration is critical. Box 4 provides more detail on where DFAT should concentrate its efforts.

Finally, this report has presented an overview of the manner in which key institutions/organisations are undertaking DEC integration in Vanuatu, and has reviewed three examples of how Australian aid has accommodated DEC issues within initiatives in-country. Following this, the report highlighted a suite of opportunities for furthering DEC integration. It concluded with two frameworks for considering these varied possibilities strategically, as well as a word of caution on the appropriateness of DEC integration. This report should be considered alongside the range of products created as part of the Advancing Integration initiative that together provide a framework for DFAT to strengthen the manner in which DEC is integrated into its development approach.

38 It is unlikely that all staff members will need to strive towards the advanced level: only where staff responsibility and remit will affect – or is affected by – climate change, disaster risk and/or environment will the intermediate and advanced levels be relevant.

TABLE 2

Detailed set of possibilities for advancing DEC integration

Action	Post	Region	Canberra
Mandatory e-learning	Managers assist staff in making time for training	Managers assist staff in making time for training	Managers assist staff in making time for training
DEC Focal Point ³⁹	Identify and appoint an individual	Maintain list of Focal Points in region; circulate this to Posts regularly	Integrate these individuals in existing Focal Point network and keep network active
Sharing existing tools and guidance	Seek tools and guidance from intranet and Focal Point network		Thematic staff to proactively share existing guidance with Post and region
Basic	Improving understanding of 'go to' people for DEC	Request clarity on who the 'go to' people are from Canberra contacts	Pacific division and thematic staff to ensure consistency in support and communicate how people in Post can utilise them
	Post-to-Post learning	Staff at Post to be more proactive in driving demand for support (technical and financial)	Help with establishing platforms for staff from different Posts within the region to interact
	Pre-posting learning	Senior management to request DEC capacity-building to be mandatory in pre-posting training for new staff	
Cross fertilisation	Organise learning for non-DEC sector specialists and advisors at Post around importance of DEC in their work	Organise learning for non-DEC sector specialists and advisors in the regional hub around importance of DEC in their work	Organise learning for non-DEC sector specialists and advisors in Canberra around importance of DEC in their work Peer review panels to ensure that DEC is seamlessly integrated into project activities without the need for separate sections
Trade-off points	Staff to lead a process to review and develop their understanding of possible trade-offs in DEC and to decide what is acceptable to the Post	Tailor Canberra-based recommendations to suit the Pacific regional context	Develop a set of recommendations on what 'cut-off' points Posts can use to help them make decisions around trade-offs ⁴⁰
Intermediate	DEC indicators	Include DEC indicators produced as part of the Advancing Integration work in relevant performance targets	Include DEC indicators produced as part of this work in relevant performance targets
	DEC integration into IPPs	DEC issues should be integrated into IPPs	DEC issues should be integrated into IPPs

39 The nominated DEC Focal Point individuals require formal training – less than this risks undermining the integration agenda as they are champions of the issues. Whilst DEC is not formally integrated into the agency, this role is thus both a technical and advocacy role.

40 But recognise that there is no 'one size fits all' and thus these can be applied flexibly at the discretion of Post.

TABLE 2 continued

	Action	Post	Region	Canberra
Advanced	Theory of Change for DEC	Senior management at Post organise a Theory of Change workshop and request Canberra to support (to ensure alignment with ongoing Theory of Change development within the agency)	Ask for observers from neighbouring Posts to attend Theory of Change workshops and maximise benefit	Canberra to help facilitate the process (i.e. linking in with existing efforts to develop DFAT-specific Theory of Change)
	Accompaniment process and skills transfer	Dedicate funds for external resources to train and backstop staff where existing resources are insufficient	Capitalise on any such initiative underway to link other Posts in the region who could benefit	Canberra to support initiative by helping locate resource and consider co-funding. Also looking at how role played by this existing resource can be appropriated by regular staff over time
	DEC integration in PfD	Review existing Partnership for Development and review existing DEC guidance. Develop understanding of how DEC issues affect priority areas; integrate DEC considerations	Support and observe the process so that similar processes of integration can be applied in other Posts in the region – or through regional work	Provide Vanuatu Post with examples of where this has been successfully done in other Posts

BOX 4

Appropriateness of integration

It should be a minimum requirement for DFAT investments in areas that are, or will be, explicitly affected by DEC to take the necessary steps to ensure DEC is integrated. For example, schools being built in cyclone-prone areas must be cyclone-proofed. This would be considered a minimum standard within Australia. Similarly, construction of early warning systems for disasters should have the capacity for expansion in a scenario where the prevalence of climate-related disasters is on the rise.

The kinds of questions that need to be asked have already been developed. For example, a sample of the Caribbean Climate Online Risk and Adaptation Tool (CCORAL) screening questions are noted below:

1. Is your activity located in/relevant to an urban, coastal or marine area, or any other environmentally sensitive or protected areas?
2. Will the effects/outcomes of the activity last longer than 10 years?
3. Does the activity involve the tourism, agriculture, forestry, fisheries, water, energy or health sectors?
4. Is the activity, once it is implemented, irreversible and inflexible (i.e. it cannot be reviewed and adjusted periodically)?

Source: <http://ccoral.caribbeanclimate.bz/stage2/screening>

Integration is not an add-on to existing programmes but a fundamental – and basic – part of understanding the development context; a lens to test and/or verify the viability of investments and their suitability for withstanding the test of time. One of the questions to ask is: is it likely that DFAT will still be investing in the kinds of projects it is doing now, in 15 years' time? And if so, to what extent might this be because of climate change, disasters or environment? Or conversely, to what extent could this be attributed to a failure to take into account the impacts of disasters, climate change and environment now?

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Appendix A: methodology

The methodological approach which guided the case study research was developed and tested in prior case studies conducted by the Overseas Development Institute. Subsequently, revisions to the framing questions informed the Vanuatu field work, which was undertaken from 6 - 24 June 2013. The fieldwork was carried out by Katie Peters (nee Harris) and Aditya Bahadur, researchers at ODI, and accompanied by Duncan McCullough and Mel Powell (Canberra-based Australian aid staff). In total, more than 40 individuals were interviewed, representing over 25 agencies.

Research methods

A mix of data collection methods was adopted, combining secondary data collection and analysis with in-country semi-structured interviews. This allowed the research team to enhance the credibility and trustworthiness of the data through method triangulation (Phillips 2002: 205). In order to identify the relevant stakeholders and specific issues that need exploring, the research team worked with the Vanuatu Post to identify and refine the appropriate interviewees, and undertook semi-structured interviews with a range of individuals. These included agency staff and representatives from the Government of Vanuatu, non-governmental organisations and civil society. In addition, the research team met with in-country donor-counterparts.

Pre-prepared questions based around the overarching research questions were used, allowing the researchers to adjust and tailor the structure of the interview as required. While in-country a snowball sampling method was used to ensure that new leads could be followed up with in-person. This helped to ensure that ODI captured the perspective of as diverse a range of stakeholders as possible, so relevant experiences and perspectives were not left out and sources could be triangulated (Baxter and Eyles 1996).

Research questions

The key research questions were as follows:

- How has DEC integration been considered and integrated in development programming?
- For each project, why was DEC integration considered necessary?
- How did DEC integration take place – in terms of timing, resources used, personnel involved?
- Which of these experiences worked well/less well and why?
- How did agency procedures support DEC integration?
- What were the main internal and external challenges to DEC integration?
- How could DEC integration be approached differently in the future?
- How have DEC integration activities been evaluated and what are the key challenges for monitoring and evaluation?

Appendix B: limitations of the research

There were a number of constraints and limitations to the research; whilst none were cause for concern to warrant undermining the findings of the research, they are worth noting for reference.

1. Unfortunately, despite several attempts the research team were unable to go into the outer islands to gain the perspective of implementing policy and programming beyond Port Vila. However, the team were fortunate enough to meet with several civil society representatives from the outer island within the focus group discussion hosted by the Vanuatu NGO network.
2. There is a possibility of unintentional bias as a result of having Australian aid staff observing the research, as the Canberra observers are regarded as ‘external’ to both the Vanuatu programme and one has direct management of the ODI partnership. This was mitigated – to the extent possible – by a discussion on research protocol. In addition, upon request from the research team observers were asked not to participate in interviews where it was deemed that bias would distort the research findings, e.g. focus group research with the Vanuatu NGOs (fund recipient).
3. The concept of ‘DEC integration’ is relatively new within Australian aid. As a result, the research team were cautious of finding ways to document integration efforts without giving the impression that this was some form of DEC evaluation; to do so would be unjustified as the Post has not set it as an objective to integrate DEC within their policy or approach. That said, there is always a possibility of interviewees inflating narratives around integration given the objectives of the research. The research team sought to reduce the possibility of ‘inflation’ by triangulating the interview findings with secondary data analysis (including research reports, monitoring and evaluation reports), and where possible, interviews with as many stakeholders within a project or process as possible.

Appendix C: list of interviewees

Peter Smith, Vanuatu Infrastructure Advisor, Governance for Growth Programme, Republic of Vanuatu

Jotham Napat, Acting Director General of the Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management Office

Belynda McNaughton, First Secretary – Health and Education

Elena Haines, Programme Manager – Civil Society

David Momcilovic, First Secretary

Katherine Ruiz-Avila, Counsellor

Simon Cramp, Director Governance for Growth

Patrick Haines, Senior Programme Manager Disaster Management

Shadrack Welegtabit, Director, National Disaster Management Office

Tu Tangi, Pacific Risk Reduction Program (PRRP), based in Suva, Fiji

Daniel Vorbach, Climate Change Adaptation Programme Manager, Oxfam

Johnson Binaru Iauma, Director General, Ministry of Infrastructure and Public Utilities, Government of the Republic of Vanuatu

Brian Philips, Manager, National Advisory Board on Climate Change and Disaster Risk Reduction, Project Management Unit, Government of the Republic of Vanuatu

Tevi Obed, DRR/CCA Specialist, World Bank Pacific Department

Nancy Wells, Development Coordinator, Asian Development Bank and World Bank

Johnson Wabait Wakanomune, Programme Director, Vanuatu Project Management Unit, Prime Minister's Office, Government of the Republic of Vanuatu

Albert Williams, Director, Environment Department, Government of the Republic of Vanuatu

John Fargher, M&E Consultant for Vanuatu Programme, Independent

Jean-Marc Bulenab, Provincial Maintenance Officer, Government of the Republic of Vanuatu

Fred Samuel, Director of OGCIO, Government of the Republic of Vanuatu

Jackson Miake, ICT Programme Manager, Prime Minister's Office, Government of the Republic of Vanuatu

James Guy, PACTAM

Peter Coventry, Principle Director Pacific Operations Group (POG)

Sam Namuri, Director PWD, Government of the Republic of Vanuatu

John Liche, Trade Policy Advisor, Trade and Investment Division, Melanesian Spearhead Group

Helen Corrigan, ECBP

Dr Christopher Bartlett, Technical Advisor – Vanuatu, German Technical Cooperation (SPC/GIZ)

Jimmy Nipo, Senior Development Programme Coordinator, New Zealand High Commission

Michael Taurakoto, CEO, Wan Smolbag

George Pedro, Environment Programme Manager, Wan Smolbag

Roundtable discussion:

Georgia Noy, Save the Children

Sharin Vile, Save the Children

Charles Aurouet, French Red Cross on behalf of VRCS

Vatu Molisa, Vanuatu Red Cross Society (VRCS)

Jerrol Joseph, Vanuatu Rural Development Training Centre Association (VRDTCA)

Johannah, Vanuatu Rural Development Training Centre Association (VRDTCA)

Edith Lingmal, CARE

Shirley Abraham, Youth Challenge Vanuatu (YCV)

Simon Boe, World Vision

Andrina K L Thomas, Live & Learn Environmental Education

Catherine Harris, ADRA

Jennifer Worthington, Vanuatu Humanitarian Team

Paolo Malatu, Vanuatu Humanitarian Team

Rebecca Duffy, Project Management Unit, The Vanuatu Meteorology and Geohazards Department

Peter Kaoh, Farm Support Association

Kevin Valea, Transparency Vanuatu

Roslyn David, UNICEF

Danielle Roubin, Oxfam

Shirley Laban, Vanuatu Climate Adaptation Network (VCAN)/Oxfam

Alex Mathieson, Oxfam

Appendix D: end of mission debrief

Disaster risk reduction, environment and climate change adaptation and mitigation (DEC) integration is part and parcel of a good development approach within Vanuatu. It is being adopted, in various guises, by the agency, the Government of Vanuatu and other development partners. There are ample examples of Australian Government-funded activities (bilateral, through the Suva Hub and from Canberra) where integration is already happening. Furthermore, a core group of national and international NGOs are drawing on extensive international learning into the topics of resilience to find flexible ways to incorporate DEC into their work.

Integration is already happening

Within the Vanuatu Post, aspects of disaster risk reduction, environment and climate change are already being integrated into many processes, initiatives and ways of working. Evidence gathered suggests that this most frequently takes the form of disaster risk reduction and climate change being considered in focus sectors such as health, education and infrastructure (environmental management does not feature as strongly).

Few of the examples we found – if any – are labelled as having integrated DEC. Instead the consideration and inclusion of elements of DEC are part and parcel of ongoing approaches to development work. Examples of DEC integration include:

- *The integration of an emergency preparedness component to the ongoing investment in telecommunications across the country.* Working in collaboration with the National Disaster Management Office (NDMO), the establishment of a short code ('166') used to disseminate critical information prior to a natural disaster and as a tool for gathering needs assessments data, post-disaster, has been supported. This initiative also links with the national broadcaster to ensure widespread communication of early warning information, and includes a broadcast facility within the NDMO itself.
- *Consideration of natural hazards, specifically earthquakes and hurricanes, in the design of a pilot hybrid school in Takara.* Working in collaboration with the Ministry of Education and adopting architectural designs from the Solomon Islands, the creation of a school building that straddles the need to align with the use of local resources but is cheaper and easier to build than conventional concrete and iron buildings has been supported. The hybrid school provides spin-off benefits for the broader community, including protection from earthquakes.
- *Adoption of climate-proofing design principles in a road-building initiative.* The Public Works Department of Vanuatu engaged technical experts to help design climate proofing measures for roads envisaged under Phase 1 of the Vanuatu Transport Sector Support Program (VTSSP). These measures included the improvement of pavements, drainage and culverts. They also included realignment of roads to appropriate coastal erosion impacts and re-vegetation for enhancing slope stability (by reducing possibility of soil erosion from extreme rainfall events).

These are three examples where DEC issues have been integrated; there are other strong examples of stand-alone projects focused on disasters and climate change.

Operationalising DEC

Different options for operationalising DEC include: designing and executing discrete projects that help engage with the impacts of climate change and disasters directly (e.g. the NGO Climate Change Adaptation Project) versus integrating these concerns in initiatives dealing with other issues (e.g. climate proofing roads built under the VTSSP). The advantage with discrete projects is that they come with attached and dedicated funds, it is easier to monitor progress against specific indicators and targets, and they fitted well with the former institutional architecture of Australian aid. On the other hand, mainstreaming DEC issues is seen to make outcomes of programmes more sustainable. It also ensures that DEC is embedded into institutional processes and therefore less prone to fluctuations in

discrete funding streams, and that rather than be the remit of a small number of sectoral experts, a variety of staff assimilate an understanding of DEC.

Second, steering successful change processes for the effective integration of DEC also entails the negotiation of an important balance between focusing on ensuring an amenable institutional environment versus leveraging the potential of particular individuals who could act as champions of integration. A number of informants applauded recent government mechanisms (e.g. NAB) established to support integrated approaches but indicated that these are predicated on the continued involvement of particular individuals. Therefore, even as ‘individuals’ were seen to be critical to such processes, building robust systems for integration was also understood to be important.

Third, integrating DEC into development initiatives was at times seen to also involve decision-making between ‘doing more’ business as usual or ‘doing less’ but with DEC issues integrated. Looked at in another way, this trade-off could also be encapsulated as ‘sustainability and effectiveness’ versus ‘quantity and extent’. Informants explained that at times they were faced with the choice of, for example, building a longer road network that is not engineered to perform under a variety of climate and disaster scenarios or building a shorter one that is.

Opportunities to strengthen DEC integration

Strengthening the systematic integration of DEC would mean that maximum added-value with the aid programme could be achieved. A number of agency resources already exist that staff can use to strengthen their understanding of DEC integration. These include: mandatory *e-learning* on DEC, the *Integration into Practice Handbook*, and *Fast Fact Sheets* on key topic areas including education and infrastructure, and the *Environmental Management Guide*. Furthermore, the Disaster Prevention and Risk Reduction Section, and the Pacific Division, can provide direct support to Vanuatu in the form of advice, peer review, training, etc. where demanded by Post.

Options for strengthening DEC include:

Help staff improve the quality of work and outputs

- All staff to undertake the mandatory e-learning on DEC integration.
- Post staff to be more proactive in driving demand for support from Canberra on DEC issues.

- Integrate DEC considerations directly into the priority areas in the renewal of the Partnership for Development.
- Support more Post-to-Post learning and training on DEC integration throughout the Pacific.
- Include DEC indicators in relevant performance assessment frameworks.

Identify and support champions of DEC integration

- Support a staff member to become a DEC Focal Point member for the Post.
- Encourage staff to set personal DEC integration objectives into their IPPs, tied to broader country or regional goals/targets, the exiting DRR policy and CAPF targets, or compliance with the EPBC Act.
- Request new staff coming to Post to have a basic level of understanding in DEC integration issues, as they explicitly relate to the Vanuatu context.

Build the capacity of staff to be able to appropriately judge when DEC needs to be integrated

- Greater recognition is needed of integration efforts that are not labelled as such. Documented examples of ‘DEC integration in practice’ can help to communicate what these may look like.
- Support staff to know how to prioritise and weight the differing ‘DEC integration’ options open to them.
- A critical balance needs to be reached between accompaniment processes (where an expert is on call to provide targeted advice on DEC issues) and skills transfer (where staff capacity is built).

While it is apparent that DEC integration is already happening successfully within Vanuatu, there are opportunities to strengthen current efforts. It is necessary to make sure that DEC is systematically integrated into current and future investments – where appropriate – to protect investments, maximise the returns and ensure that opportunities for adding value to existing programmes continue to be harnessed.

Questions for discussion

1. How can DEC integration leverage more effective programming within Post?
2. How can development priorities be better aligned with the institutional arrangements for DEC?
3. Can DEC alter the trajectory of development processes?

Appendix E: questions for further consideration

How can DEC integration leverage more effective programming within Post?

DEC integration in Vanuatu is being funded – be this explicit or implicit – through a range of actors by a variety of funding mechanisms (bilaterally, from the Suva Hub and directly from Canberra). Strengthening efforts to coordinate these activities and investments could help to ensure that lessons learnt and knowledge and ideas from across these initiatives can be systematically applied throughout activities in-country.

For example, lessons on integrating climate change and disaster risk reduction from Canberra-funded programmes operating in Vanuatu need to be systematically shared and integrated into Post and Suva-led programmes in Vanuatu, and vice-versa. Similarly, opportunities for staff to participate in trainings and awareness-raising on DEC issues should be encouraged. For example, where funded projects are providing training to other agencies, staff can attend as observers.

How can development priorities be better aligned with the institutional arrangements for DEC?

The Government of Vanuatu have taken steps to combine and align departments for DEC – and more – under one ministry. How will DFAT align with these through the upcoming opportunities to renew its development priorities within the country?

For example, the new Ministry for Climate Change Adaptation, Meteorology, Geohazards, Environment, Energy and Disaster Management proactively bring together these issues. The aim is for this to translate into combined policy and development priorities set by the Government. In parallel, the Partnership for Development is being renewed and as such there is the opportunity to align with the Government's new institutional structures for DEC. An accompanying

Performance Assessment Framework for the country could also consider embedding DEC in order to help support more proactive tracking of how – and in what ways – integration improves development outcomes.

Can DEC alter the trajectory of development processes?

In order to make sure that DFAT investments within Vanuatu are sustainable and 'fit for purpose' DEC can help existing programmes become more suited to the context at hand. However, taking a step back, DEC raises more fundamental questions about the future conditions under which development will be pursued in Vanuatu. Can DEC alter the trajectory of development processes?

For example, is it sufficient to integrate DEC by making minor adjustments to existing plans and investments e.g. ensuring that appropriate risk assessments are conducted or architectural designs inclusive of hazards? Or do investment decisions in-country need to be informed by an assessment of long-term projections on climate, environment and disasters (for 10, 20 and 50 years) to stimulate thinking on what the most appropriate development investments are now, for those longer-term future conditions?

EXTERNAL PRODUCTS

- 1. Existing knowledge**
Integrating disaster risk reduction, environment and climate change into development practice
Emily Wilkinson, Elizabeth Carabine, Katie Peters, Emily Brickell, Catherine Allinson, Lindsey Jones, Aditya Bahadur
- 2. How to measure progress**
Tracking integration: measuring development programme results
Paula Silva Villanueva
- 3. The case of Vanuatu**
Advancing integration of disaster, environment and climate change
Katie Peters and Aditya Bahadur
- 4. The case of Viet Nam**
Advancing integration of disaster, environment and climate change
Guy Jobbins and Dang Thu Phuong
- 5. A spotlight on South Asia**
Australia's integrated approach: development outcomes in water, food and energy
Maylee Thavat
- 6. A spotlight on Kiribati**
Australia's integrated approach: matching global climate change commitments with immediate needs and capacity
Maylee Thavat
- 7. A how-to handbook**
Integrating disaster risk reduction, environment and climate change adaptation and mitigation into Australian aid projects, programmes and investments
Aditya Bahadur, Guy Jobbins, Natasha Grist, Catherine Allinson
- 8. Reflections and lessons**
Unlocking policy reform and advancing integration: a synthesis of findings
Emily Wilkinson, Aditya Bahadur, Elizabeth Carabine

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