

## Integrated Adaptation and Disaster Risk Reduction in Practice

John Handmer<sup>a</sup>, Johanna Mustelin<sup>b</sup>, Deanna Belzer<sup>c</sup>, Malcolm Dales<sup>d</sup>, Jill Edwards<sup>e</sup>,  
Norm Farmer<sup>f</sup>, Holly Foster<sup>g</sup>, Bruno Greimel<sup>h</sup>, Matthew Harper<sup>i</sup>, Hudson Kauhiona<sup>j</sup>,  
Steve Pearce<sup>k</sup>, Loti Yates<sup>l</sup>, Katie Vines<sup>m</sup>, Shadrack Welegtabit<sup>n</sup>

- a) RMIT University, Centre for Risk and Community Safety;*
- b) Griffith University Climate Change Response Program, Griffith University;*
- c) Department of Community Safety, Queensland Government;*
- d) Project Management Unit, Vanuatu Meteorology and Geo-hazards Department, Government of Vanuatu;*
- e) Australasian Fire and Emergency Service Authorities Council;*
- f) Surf Life Saving Australia;*
- g) Fire Services Commissioner of Victoria;*
- h) Department of Community Safety, Queensland Government;*
- i) Attorney-General's Office, Australian Government;*
- j) Climate Change Division, Government of the Solomon Islands;*
- k) Office of the Commissioner, NSW State Emergency Service;*
- l) National Disaster Management Office, Government of the Solomon Islands;*
- m) Office of Environment and Heritage, NSW Department of Premier and Cabinet;*
- n) National Disaster Management Office, Government of Vanuatu*

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John Handmer & Johanna Mustelin

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## Summary

Climate change is projected to lead to more frequent and more intense climate and weather extremes, resulting in greater damage to human and environmental systems. Emergency management and disaster risk reduction (DRR) efforts are integral to climate change adaptation (CCA). The integration of disaster risk reduction with adaptation is now globally recognized as vital for sustainable development. There is now substantial literature on this topic, but little on implementing this integration. Note that for the purposes of this report, “emergency management” and “disaster risk reduction” are treated as synonymous.

This report summarizes a meeting that explored the experiences of the south-west Pacific region integrating disaster risk management and climate change adaptation. The report also addresses the Australasian experience with, and capacity for, emergency management, and its potential to contribute to climate change adaptation across the region.

The participants included disaster risk management and climate change representatives from Project Management Unit, Vanuatu Meteorology and Geo-hazards Department (Vanuatu) and Climate Change Division and National Disaster Management Office (the Solomon Islands), AFAC (Australasian Fire and Emergency Service Authorities Council), Surf Life Saving Australia, Griffith University and RMIT University, and practitioners from the Department of Community Safety, Queensland Government; Fire Services Commissioner of Victoria; Attorney-General's Office, Australian Government; Office of the Commissioner, NSW State Emergency Service; and Office of Environment and Heritage, NSW Department of Premier and Cabinet. Of particular interest for all participants were the experiences of how integration of these two policy streams was taking place in practice. This included discussion of constraints and facilitating factors, potential learning across jurisdictions, and possible improvement in approaches to disaster risk reduction and climate adaptation. Participants reflected on national differences, and compared the varied Australian experience between states and agencies with that of Vanuatu and the Solomon Islands.

The main experiences and issues associated with constraints to, and enablers of, integration are summarised below. There are three main groups of constraints:

### 1) Uncertainty relating to the changing nature of events

- ‘Events’ in this context are a function of weather and climate, exposure and vulnerability of human activity and assets
- In Australia and the South Pacific, the increased frequency of extreme weather and climate events is stretching the response capacity of agencies

- Uncertainty relates to how events will change in the future, how they will interact with growing exposure, and what this means for both CCA & DRR activities and agency practice

## 2) Current institutional arrangements

- Current institutional arrangements whereby DRR is often placed under Police (both in Australia and the South Pacific), complicate targeted capacity building within CCA & DRR sectors
- A challenge in Australia is the reliance on the volunteer sector during disasters, in that the limits of the capacity of the volunteer sector are unclear.

## 3) Complex external funding structures and limited Monitoring & Evaluation

- In the South Pacific, there are many funding (or donor) organisations, each with its own terminology, and approach to project management, accountability and reporting, among others requirements. The need to work with these different systems along with a continuing preference by funders for only demonstration or pilot projects inhibit progress and constrain effective collaboration and integration
- In Australia, funding structures (from federal to local) similarly pose difficulties in supporting local government priorities
- Both in Australia and in the South Pacific, lack of effective Monitoring & Evaluation (M&E) mechanisms inhibits effective learning and program improvement.

The main enabling factors relate to:

### 1) Increased response capacity

- Proactive planning in place before disasters can facilitate staff movement in the region, allow sharing of knowledge and experience to increase capacity for response and prevention
- Response capacity at national, regional and agency level needs to be assessed through proactive planning through, for example, capacity and capability assessments to allow resources to target weaker areas

### 2) Strengthened partnerships (both formal and informal)

- In the region, fostering formal (policy frameworks) and informal partnerships (personal relationships) is important for effective collaboration. These can take the form of alliances, networks, and joint proposals across agencies and sectors

### 3) Leadership, science-policy linkages and access to data

- Political will and leadership are important for effective integration
- In Australia, there is a need to better incorporate science into decision-making
- In the South Pacific, it is important to have access to data, and to provide a legislative basis for integration

With regards to agency- and nation-specific integration processes and preferences, participants expressed some contrasting views:

- For the Pacific Island countries, integration across agencies and departments to provide one national focal point responsible for CCA & DRR (increases effectiveness of coordination) was favoured, especially as it reduces the administrative burden and allows focus on national priorities
- For Australia, there was a preference for mainstreaming CCA & DRR across agencies and sectors making the issues everyone's responsibility (increases ownership within whole-of-government)

#### Experience in Vanuatu and Solomon Islands

The experiences in Vanuatu and the Solomon Islands described some of the different pathways towards greater institutional integration and practice.

In Vanuatu's case, this integration had mainly taken place through the consolidation of Climate Change Adaptation and Disaster Risk Reduction into a combined institutional arrangement. This was mainly in the form of the National Advisory Board (NAB) for Climate Change and Disaster Risk Reduction. The Board considers project proposals and seeks to maintain coordination of the different initiatives across the country. Civil society members are also part of the NAB in order to facilitate multi-stakeholder discussions and agreement. A Project Management Unit (PMU) supports NAB in both project implementation and advice; donor funding from several climate change projects has made the unit possible. The main challenges for the integration process lie in the coordination of activities across government sectors and departments, and in managing the expectations of funders in relation to PMU activities.

In the case of Solomon Islands, the institutional integration was still underway but was being conducted and strengthened through multiple policies, strategies, frameworks and legislation. The formation of a new ministry in 2008 placed climate change, environment/conservation and meteorology under the same ministry and enabled a more targeted use of resources to address these policy areas. The main challenges for the integration have been a lack of communication and connections between for example donors and the national government. National frameworks for climate change adaptation that have been developed for the Solomon Islands by external funders do not necessarily link or align with national priorities, policies and legislation. This has been partly dealt with through enhanced communication

between different parties and closer alignment of country priorities and needs with donor funding priorities.

The future:

Future directions and recommendations for the evolving integration agenda include:

- Having better information to make decisions on resource allocation; quantifying vulnerability and risk in DRR
- Measuring and understanding community resilience
- Characterising capability and measuring the response capacity and capability within emergency management (DRR) and CCA agencies
- Building long-term relationships through social training events
- Stronger and more effective M & E of and learning from activities and their outcomes.

## 1. Introduction

Climate change adaptation (CCA) and disaster risk reduction (DRR) are often posed as parallel but somewhat opposing issues and communities of practice. For example, DRR is typically viewed as response focused with a lower priority being given to long-term strategic planning frameworks, whereas CCA often adopts a long-term strategic view and is based on the predictions of science. However, both aspects focus on reducing vulnerability and exposure, as well as on increasing resilience (IPCC, 2012). The integration of these approaches for vulnerability reduction “could provide benefits at all scales” through an increased focus on a multi-hazard approach (IPCC, 2012, p. 9). Note that for the purposes of this report DRR and emergency management treated as synonymous.

Concerted efforts are underway to integrate these two communities of practice (Birkmann and Teichman, 2010). Disaster risk reduction is increasingly expected to consider climate change in its practices due to the influence of climate change on disaster risk (Handmer and Dovers, 2013). To this end, the Hyogo Framework for Action (HFA) gives explicit recognition to climate adaptation’s importance for disaster risk reduction (UNISDR Asia and Pacific secretariat, 2011). The UNFCCC Bali Action Plan (2007) and the Cancun Adaptation Framework (2010) both call for more recognition of DRR as part of the adaptation agenda. At the national level, Australia’s National Climate Change Adaptation Research Facility (NCCARF) has a network for emergency management that focuses on this linkage. In other words, linkages are already made at global, national and regional levels.

The literature on integration has expanded rapidly and now a wealth of information exists on the rationale for, barriers to, and enablers of closer integration (Birkmann and Teichman, 2010, Gero et al., 2010, 2011, Handmer and Dovers, 2013, IPCC, 2012, Mercer, 2012, Schipper, 2009, Thomalla et al., 2005, UNISDR Asia and Pacific Secretariat, 2011, UNISDR and UNDP, 2012). Closer integration can promote greater effectiveness and efficiency in the use of available resources, reduce administrative and operational burdens, and contribute more effectively to the goals of sustainable development embedded in the agendas of both DRR and CCA (UNISDR Asia and Pacific secretariat, 2011). Integrated climate risk management offers one possible approach to integration (UNDP, 2009).

This integration is perhaps most advanced in the Pacific where significant policy effort has taken place to ensure that benefits accruing from integration can be harnessed. This is evidenced by the recent push to develop Joint National Action Plans (JNAPs) for climate change adaptation and disaster risk management, with Tonga (Kingdom of Tonga, 2010), Tuvalu, and Cook Islands having already done so. This acknowledgement of the need for broader integration is also evident in the forthcoming post-Hyogo framework for disaster risk reduction in the Pacific, which will consist of an integrated regional strategy that essentially eradicates the need for separate adaptation and disaster risk reduction frameworks. The new integrated framework will replace the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005-2015 and the Pacific Islands Framework for Action on Climate Change 2006-2015 that have been guiding the regional activities (SPC,



UNISDR and SPREP, 2013). Given that small island developing states are highly vulnerable to disaster and climate change risks (UNISDR, 2013), robust approaches are necessary to increase resilience and recovery from environmental change.

The aim of this report is to document some of these experiences at national and agency levels in the south-west Pacific region and to outline possible future directions to support policy and practice. The report summarises the findings of a recent meeting of practitioners, academics, civil society, and policy advisors who shared experiences and discussed lessons. This report firstly presents common themes that emerged from the discussions (including constraints and enablers for integration), followed by national implementation processes in Vanuatu, the Solomon Islands and the Australian emergency management experience. The report closes with a summary of findings and recommendations.

## **2. Generic issues of integration**

Many participants felt that enough theoretical knowledge exists on how integration should take place in practice. They agreed that it was time to move from theory and “pilot projects” to implementation. In cases where risk and vulnerability assessments had already been conducted, there was a clear path to commence implementation. However, in the Pacific Island countries, funders and aid agencies often preferred further studies.

### ***2.1. Potential constraints to integration***

The participants discussed their different experiences with the integration of CCA & DRR. Several factors were mentioned as potential constraints that were particularly difficult to overcome and/or that impeded the integration.

#### **2.1.1. Uncertainty regarding the changing nature of event**

- ✓ The nature of the events is already changing; simultaneous multiple events with shorter or no breaks between (this impacts on the response capacity of service providers)
- ✓ Unclear how and where new risks emerge and how to manage these
- ✓ Increased exposure and vulnerability: more people and infrastructure at risk
- ✓ Lack of adequate knowledge on agency response capacity and capability under a changing climate

A primary concern is the changing nature of climate and weather events, and the implications of this change for both CCA & DRR. Some participants felt that these changes were noticeable in terms of sequencing of events. This has a considerable

impact on the response capacity of service providers as noted by one Australian DRR participant:

*“What is happening is that the recovery time for agencies to rebuild capacity is becoming less and less so the impact on agencies to provide services is becoming a more serious issue. Not only is there a resilience factor needed in communities but also in service providers; we have to start looking at capabilities, sharing responsibilities, the expectations that are coming from a continuous stream of events and emergencies. Communities now put more responsibility and expectations on service providers but this is often not in agencies’ capabilities or within their legal mandates.”*

This related also to the current lack of understanding about where and how new risks would emerge and how these would impact not only management of disasters, but also agencies’ capability and capacity to handle such changing risk landscapes. Another Australian participant working both with CCA & DRR remarked that there was a need for:

*“...understanding the changing risk that is faced by agencies, room for understanding new risks and how climate change might change the risks we are dealing with at the moment. There has been a fundamental change in the nature of risks – a space where we can’t necessarily identify new risks in the future. Recovery is an opportunity for improvement, not just like-to-like replacement but building better.”*

A major contributor to the risk is the increase in exposure and vulnerability as growing populations and increased infrastructure investment mean that there was more to protect. The changing nature of events would also impact on the volunteer sector, which is heavily relied upon during crises. Some participants for example noted that many Australian volunteers were also professionals dealing with CCA & DRR. Therefore, the volunteer capacity and capability to continuously respond to crises and events would decrease if events of large magnitude began occurring more frequently.

The concern was that there was no real understanding of the response capability and capacity within agencies or within the region to deal with more frequent disasters and events. In addition, the lack of dialogue between operational and policy communities was identified as a constraint as this meant that theory and practice did not inform or learn from each other.

### 2.1.2. Current institutional arrangements

- ✓ Professionalization of EM services is seen as an issue for service providers, not as a whole of society issue
- ✓ Integration is often seen as a specific issue for one department or unit
- ✓ Most institutional arrangements for EM & DRR are under Police authority, which at times leads to emphasise on police issues rather than CCA and DRR
- ✓ Geographical dispersal of populations is a logistical challenge: Small Island Developing States with their small remote islands; and in Australia with many remote rural communities
- ✓ Decreasing agency budgets and staff, as well as increasing reliance on volunteers in EM, leads to agency fatigue from multiple on-going disasters
- ✓ Some parts of the volunteer sector require more equipment and training

There are a number of institutional constraints. For example, the professionalization of emergency management means that EM is seen increasingly as the responsibility of a service provider rather than as a whole-of-society responsibility. The institutional arrangements also constrain the effectiveness of CCA & DRR. For example, in many countries EM and DRR often both sit under Police. This means that most budgets and attention is spent on police issues and not broader EM services, with the possibility that EM can be marginalised. Most training targeted at CCA & DRR personnel are often attended by police but not by fire service staff because of this institutional structure.

Some of the shared constraints were logistical challenges in reaching remote communities and the funding structures and arrangements in place. In the Pacific many communities are remote on small distant islands. In Australia, isolation results from the geographical remoteness. This raises questions of logistics and communication, including ways to implement secure evacuation mechanisms, or alternatives to evacuation.

An Australian emergency manager noted that one of the big challenges in Australasia was:

*“...decreasing agency budgets and decrease in staffing but increasing reliance on volunteers in EM. We have experienced fatigue in our agency for the last 24 months; volunteers getting tired after 160 straight operational days. We have also had an increased reliance on volunteers in EM, how do we maintain the resilience of volunteering EM sector in terms of increasing climate change related events? How do we resource this also federally?”*

This comment related to multiple, frequent disasters and agencies’ capability for constant response. This was particularly problematic where funding cuts had decreased the number of personnel and yet where an expectation remained that the staff would be ready and able to respond to events at anytime. Increased reliance on

volunteer sector was problematic as many volunteers also had careers in EM and DRR. In some instances, the volunteer sector was noted to need additional training in some parts of Australia and in the Pacific. One Australian emergency manager noted:

“...some volunteers do not have adequate training or equipment; training is crucial to reduce also response costs”.

### 2.1.3. Complex external funding mechanisms, and limited monitoring and evaluation (M&E)

- ✓ Each UN agency and each donor, has its own preferred language, methods, priorities and compliance procedures. This denotes a lack of consistency and makes it difficult to describe activities in a common language, especially at the community level
- ✓ There are similar issues in Australia between different levels of government. However, capacity is very large by comparison.
- ✓ There are currently weak M & E mechanisms to reliably measure the extent of positive change on the ground

Funding structures and arrangements were noted to be complex in the Pacific, with each donor having their own terminology, priorities and preferred methodology. Donors often seemed to prefer investing in pilot projects rather than long-term programs. Given the issues above, externally driven approaches could remain inconsistent with nationally identified and preferred assessment types, policies and legislation. Such an approach could also override country priorities and needs and result in situations where two similar communities were dealing with completely different methods and assessments to achieve similar ends, thereby unnecessarily consuming limited local resources. The language used for CCA and DRR was often complex and difficult to translate for communities. A participant from the Pacific noted that this confusion was often very apparent at the village scale:

*“101 foreign agencies coming in with their own frameworks: for example, two villages are doing the same thing but with different language and budget support and use different tools . Villages often end up forming new committees and step all over each other.”*

In Australia, a similar case related to how funding was disbursed through different levels of government. As one Australian participant noted:

*“I think there is much parallel with many issues regarding funding projects by international agencies and issues that local governments experience when it comes to funding from state and federal governments; these do not necessarily build on local government or community priorities.”*

Another challenge is the lack of robust methods for monitoring and evaluation (M & E), learning from M & E and demonstrating how integrative practices have made a

difference to outcomes. It was not clear whether the approaches, methods, tools, and assessments that were being used to increase disaster resilience were instigating change on the ground. This was demonstrated by comments from a participant from the Pacific who said:

*“...we have to measure whether the projects or initiatives are making any difference regarding resilience; one of the aims is to M&E and see whether anything is happening on the ground. We still do not monitor all projects because there are so many actors and some go through directly to the communities and tell them the world will fall tomorrow.”*

This also related to the need for understanding the past and subsequent changes in DRR & CCA practice, and how the results from projects and programs could be better utilised. Some participants lamented the way societies and institutions tend to forget about history and past extreme events and the failures and improvements that have occurred since. For example, much of the documentation of the past events is stored in institutions and agencies at times in not easily accessible formats, and is at times only discovered when going through existing files.

## **2.2. Enabling factors for integration**

To negate some of these constraints, the participants identified a range of factors and issues that could potentially help in achieving better CCA & DRR policy and practice – as discussed below.

### **2.2.1. Increased Response capacity**

- ✓ Capability assessments to understand the expertise and capacity across country, including equipment and personnel
- ✓ Liaison officers placed in each state before any major events
- ✓ Investing in on-the-ground capacity (e.g. community level training)
- ✓ Clear policy arrangements for EM & DRR personnel movement in the region during emergencies

One of the most important issues that could enable agencies to respond more effectively was an increased understanding of the response capacity and capability and its assessment. In Australia, work has started in the form of an Australian National Capability Picture, which would list and track the existing skills and expertise in the country and function as a ‘clearinghouse’ for existing national capabilities and skills. This should enable more rapid deployment of expert staff in times of disasters, knowing where such skills and professionals were located, and having a better understanding of what external assistance and experts would be needed. In Australia,

placing of disaster coordination liaison officers in each state is a proactive approach whereby response networks would be in place before an event occurs.

Other enabling factors for response capacity include better training of communities to be able to respond on the ground to emergencies and disasters. This pertains to increasing community resilience. A regulatory framework should be in place before disasters occur as it could facilitate rapid deployment of DRR personnel within the region. For example, during the Samoan tsunami and its aftermath, a clear policy framework would have been useful in deploying EM personnel from PNG and Fiji to Samoa. This would also help in identifying the right points of entry among institutions and disaster relief coordination. Such frameworks have the capacity to help in coordinating activities in the region, and also in directing help effectively to where it is most needed. An example of this is the forthcoming Australian white paper on country entry requirements and standards for emergency responders, which aims to clarify what kind of support will be needed and how it can be accessed.

Increased response capacity however, is not limited to people, and can include infrastructure. An Australian participant noted that perhaps climate change adaptation actions were in fact contributing to a more robust energy network:

*“I am very interested in climate change adaptations whether these have an impact on social structure and whether they change the nature of disasters; the use of green power and how it affects the grid during summer and its impacts on small communities. We have not increased power generation capacity in this country; how much more stable does green power make our power grid? I am wondering whether CCA is actually reducing our risks ...?”*

Hence, incorporating climate change initiatives and tracking how these strengthen key infrastructure, such as energy grid networks, could be considered part of an increased capacity. Another Australian participant noted that such initiatives had strong linkages with the water sector, which was another area where modifications to existing energy and water systems could be incorporated as part of increased capacity for CCA & DRR.

### 2.2.2. Strengthening partnerships

- ✓ Informal and formal partnerships: chief-to-chief, professional to professional, agency-to-agency, sharing information, building capacity, personal relationships
- ✓ Pacific Islands Emergency Management Alliance
- ✓ Institutional staff exchanges between countries
- ✓ Donors taking a more consultative approach in CCA & DRR; consistency in methods, tools and assessments
- ✓ Multi-agency projects: Joint project proposals
- ✓ Inclusion of civil society in national discussions and community resilience building

One of the most important enabling factors that participants mentioned was partnerships, both informal and formal. Informal partnerships were seen to play an important part in sharing lessons and strengthening practice. These partnerships have included for example agency-to-agency exchanges between Fiji and Victoria where DRR and EM personnel have been able to spend time at the partner agencies. For example, staff of CFA Victoria had undertaken placements at the Fiji National Fire Authority in order to build capacity and to understand how to adapt EM plans and policies for local context and vice versa. Such twin-arrangements have strengthened the opportunities to learn from practice and relate these lessons back to the agency context, and modify existing plans and policies to fit the local context.

Greater integration had brought new alliances into the area, such as the Pacific Islands Emergency Management Alliance, and made new space for collaborative approaches where different people and institutions could pursue joint projects. An Australian participant noted that the strength of this new alliance relied on everyone coming together to support public safety:

*“The strategic alliance has reached the point of the Pacific Islands Emergency Management Alliance to forge better relationships (a pure support mechanism) so that has been an interesting journey and to have all these agencies supporting this alliance. There will be problems but the leadership from all of them, National Disaster Management Offices, the police etc, is very good. The whole issue of supporting public safety, it is about getting a focal point.”*

Partnerships were also growing in the Pacific between donors and governments where negotiations over funding and project priorities were becoming more equal and positive. Donors and external agencies would, however, need to follow the frameworks, legislation and preferred tools of each country rather than each donor bringing their own. In addition, partnerships could be managed through joint agency proposals where two or three agencies would develop a joint proposal where the data and resources gathered would be useful across a number of agencies. This would also enable closer collaboration and sharing of information across government.

Partnerships are also needed between government agencies and non-governmental organisations. Some participants stressed the need to view civil society actors as an essential additional resource for the government to implement different agendas and gain support for policies and actions. In Vanuatu, this partnership was manifested in government's commitment in including civil society members in the national level CCA & DRR meetings. Collaborating with and harnessing the efforts of these organisations was crucial for a shared agenda. Civil society organisations, such as Surf Life Saving Australia, have been providing training in basic life saving skills to hotel workers, community members, and members of the police in the Pacific.

### 2.2.3. Leadership, Science-Policy linkage and Legislation

- ✓ Political will to integrate and take responsibility
- ✓ Focal points for national coordination and common approach
- ✓ Linking scientific research and knowledge to policy and decision-making processes
- ✓ Having data available
- ✓ Legislation can also drive integration, define legal responsibilities and clarify roles

Regardless of the context, political leadership and a willingness to take responsibility were considered essential for successful integration. This included clear identification of roles and responsibilities, for example through setting up a national/state level focal point to coordinate the integration, which contributed also to the development of communication strategies with a consistent message.

Furthermore, enabling factors such as linking science, policy and practice, and better access to data across agencies and departments were also important. This relates to the sharing of knowledge as well as to learning about new ways to use and analyse relevant data. Joint approaches were seen as vital. Actions such as joint agency proposals could be developed, which would produce data relevant to multiple agencies and increase the necessary agency-to-agency and sector-to-sector linkages that could result in more effective approaches. It was noted by an Australian emergency manager that agencies should approach the government together for projects or research initiatives.

Legislation was also seen as an important driving force, for example in enhancing resilience and enabling better planning as noted by an emergency manager from the Pacific:

*“In the Pacific, we try to address its absence in the legislation, something that will make you do it. We have a building code but it is not legislated; we need to get these into the legislation so integration can be done so that you become accountable for your actions.”*



Once building codes are legislated, accountability and responsibility can be demanded, and used to drive integration. The concepts of accountability and responsibility in integration are central as these allow parties to commit to actions and function as an added incentive to implement integration.

### 3. National and agency-specific integration processes

#### 3.1. Commonalities and differences in integration

The way institutional integration was to be handled within organisations highlighted different views. The participants had varying opinions on whether new administrative units should be constructed to implement and oversee integration, or whether integration within each sector would achieve the purpose better. Those in favour of one focal unit saw opportunities for a common approach through better coordination, consistent messaging, reduced overlap, and clearer allocation of responsibility to particular actors.

However, the participants also acknowledged that this option has the potential to lead to a siloed approach, where integration could be seen as the exclusive responsibility and mandate of one particular department or unit. This could discourage other departments in taking part and incorporating integrative approaches. Finding that balance is complex, as one emergency manager concluded:

*“Often new problems invite new departments or units instead of saying ‘this is a whole of government issue’ but on the other hand focal points are needed to start investing in capability. There is a normal tendency of throwing resources at the problem and to come up with new institutions rather than discussing where the focus should be across the government”.*

While new institutions could provide more focused action, it was the everyday practice that needed to become ‘integration-minded’ as one disaster risk reduction manager pointed out:

*“There has been a lot of talk about integrating, mainstreaming, maybe a lot of the agencies don’t know how to do it. It is very challenging but it is first when everyone is climate proofing their everyday practices, that is the last final step in integration when it has been embedded in everyday-thinking and activities”*

In practice, the tangible benefits from integration need to be demonstrated. One Australian emergency manager stated:

*“It is important to demonstrate the benefits of implementation. It is important to show the benefits, otherwise you can’t get the benefits from stakeholders. But what should be the stages of integration: hit the low hanging fruit first? If you can show tangible benefits, then you get more buy-in.”*

This buy-in would support the integration agenda and demonstrate to other agencies and the public why such approaches are pursued and how they support multiple goals. However, some participants also voiced concerns regarding the practical integration of the policy issues and the potential shift in focus that might lead to some issues to be overlooked. One participant working with fire management questioned whether the promotion of some CCA issues would lead to some issues central for DRR being downplayed or marginalised:

*“There might be an issue with integration that if something is CCA & DRR, will they cover all necessary issues so that volcanoes or earthquakes don’t fall off the agenda? Some of the DRR issues might be far more pressing than CCA issues alone, for example, aging populations, planning, resources. Integration has to sit within the broader concept of DRR.”*

Another Australian participant noted that we should not underestimate how difficult integration and truly collaborative processes are in practice. In addition, they reinforced the importance of identifying champions and leaders who could push the integration agenda forward. It was considered important that the changes and new approaches were in fact institutionalised rather than remaining as lip service to good ‘new’ ideas, with little change in practice.

In terms of institutional integration, different organisations and institutions have decided to respond differently. For example, in Victoria, climate change adaptation is to be mainstreamed across each sector albeit without additional funds, whereas both Vanuatu and the Solomons had integrated CCA & DRR departments into one administrative unit. The next section looks at these integration processes in Vanuatu and the Solomon Islands in greater detail.

### 3.2. *Vanuatu*<sup>1</sup>

#### 3.2.1. Essential factors in supporting the integration

The integration of the climate change and DRR streams in Vanuatu has to a large extent been brought to the forefront by the formation of the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB). Leading up to the creation of the NAB, Vanuatu's process was characterised by: duplication or overlaps between previous bodies responsible for climate change and disaster management; lack of coordination among the various levels of governance (i.e. national to community level); increasing number of actors; resource availability; international and regional integration efforts; need for a coordination unit or resourced secretariat; and donor support.

Prior to the NAB, the National Advisory Committee on Climate Change (NACCC) and National Task Force (NTF) were two inter-agency bodies that had separate responsibilities for matters related to either climate change adaptation or disaster risk reduction. Membership of both NACCC and NTF was similar, and with growing resources, actors, a lack of activity and program coordination, it made sense to consolidate these resources.

The Vanuatu government's decision to co-locate the Meteorological and Geo-hazard department with the National Disaster Management Office in 2009 and combine climate change (NACCC) and DRR (NTF) advisory bodies to form the NAB in 2012 instigated the integration agenda. The decision to establish a secretariat to the NAB in the form of the Project Management Unit (PMU), was a result of the availability of donor funds for major climate change and DRR projects and administrative support. (For example the World Bank's *Increasing Resilience to Climate Change and Natural Hazards* project and *Mainstreaming Disaster Risk Reduction* project.) Accordingly PMU not only undertakes project management roles but supports NAB in implementing its mandate of policy making and as an advisory body for all matters related to climate change and DRR in Vanuatu.

Operationalizing the NAB Secretariat, which is the main driver in the integration process, would not have been possible without the support of donor funding like the EU's Global Climate Change Alliance Project (EU GCCA) and the World Bank's Increasing Resilience to Climate Change and Natural Hazards Project (IRCCNH). The EU GCCA provided initial funding for the recruitment of PMU's core staff. That is adaptation/DRR, mitigation, M&E (monitoring and evaluation), communications and administration officers (refer to structure below). Subsequently, further support was provided by the IRCCNH project to hire financial management and procurement personnel.

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<sup>1</sup> This section on Vanuatu was prepared by Malcolm Dalesa.

The recent formation of a Ministry of Climate Change Adaptation, Meteorological, Geo-hazards, Energy, Environment and Disaster Management has further reinforced the political commitment to streamlining the implementation of climate change and DRR programs and associated institutional arrangements in Vanuatu. However, several factors have also challenged this process.

### 3.2.2. Challenges in the integration process

The path to CCA and DRR integration for Vanuatu has been challenging especially with issues related to leadership, NAB Secretariat establishment, sectoral buy-in, stakeholder communications, clarity of roles and flexibility of demands.

To a large extent the integration agenda was driven by the NAB co-chair agencies i.e. the Vanuatu Meteorology and Geo-hazards Department (VMGD) and the National Disaster Management Office (NDMO) director. However, more champions are needed particularly within other sectors so that there is less reliance on a few individuals. At present, a considerable number of stakeholders, especially from the government, are not fully engaged with the NAB or its meetings. This is likely due to limited resources at the sectoral agencies level, views about the relevance of attending NAB meetings or participating in NAB processes by these agencies, and a limited sense of ownership in the whole process.

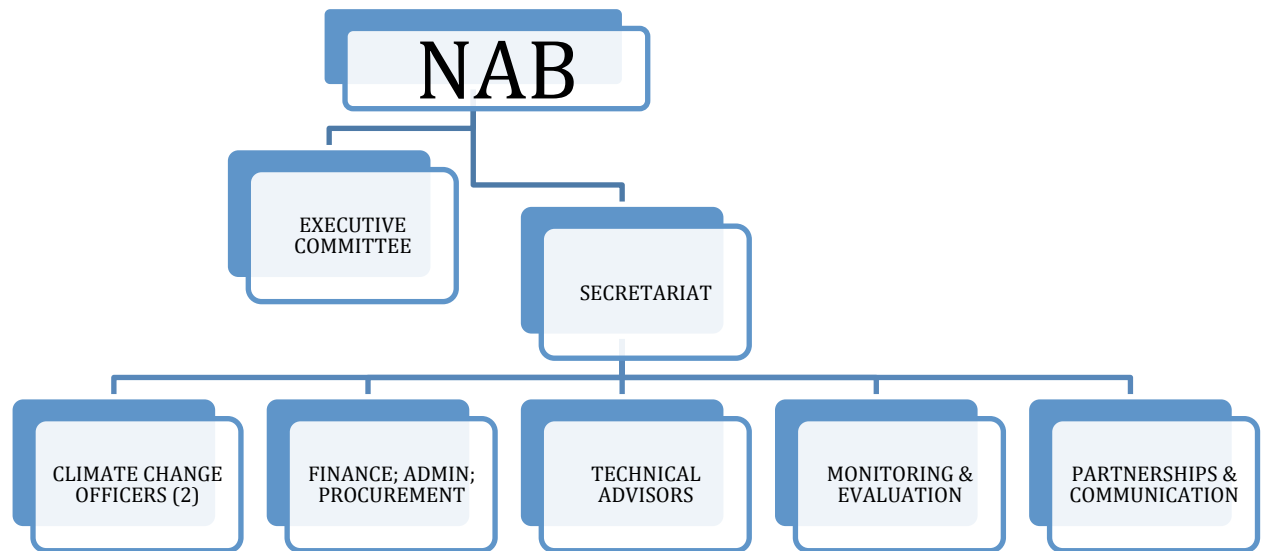
Given that the integration process is still in its infancy, much effort is needed to communicate and implement new coordination mechanisms to reach more people and stakeholders. Moreover, efforts to establish new communication mechanisms are inclusive of other “busy” work namely development of infrastructure such as Terms of Reference, procedures and guidelines. In effect, since the NAB Secretariat was established through project funding, balancing project management with strategic coordination functions has been challenging. Therefore there is the need to manage the PMU’s own and partner expectations.

Integration has also meant a re-orientation of traditional jurisdictions, which has resulted in lingering uncertainties around roles and responsibilities. This is particularly true of the roles of PMU and other departments within the VMGD and NDMO relative to both CCA and DRR. Additionally having a single focal or coordination point means forging a balance between the high demand from partners versus the limited and time constrained NAB Secretariat staff.

### 3.2.3. Actors involved and institutional structure

Overall, NAB was formed so that it will act as the supreme policy making and advisory body for all matters related to climate change and/or DRR (Figure 1). NAB has representation from senior management level at both the government and non-government sectors. The Board is co-chaired by both directors of the VMGD and NDMO. The secretariat roles of the NAB are undertaken by the PMU and these namely revolve around the core functions of:

- Strategic governance and policy;
- Technical advice, project monitoring and coordination; and
- Project Management – financing, procurement and administration



*Figure 1. Organisational structure of the NAB PMU.*

### 3.2.4. Key milestones in the integration process

The main landmarks for Vanuatu in the climate change and disaster risk reduction integration process have been:

- 2009 – Co-location of Vanuatu Meteorology and Geo-hazards and the National Disaster Management Office within same building
- September 2012 – Establishment of PMU and recruitment of staff (funded by EU GCCA)
- October 2012 – Official Council of Minister's (COM) endorsement of NAB

- January – November 2013 – Development of joint national climate change and disaster risk reduction policy (EU GCCA funding)
- April 2013 – Establishment of the Ministry of Climate Change Adaptation, Meteorology, Geo-hazards, Energy, Environment and Disaster Management

### *3.3. The Solomon Islands*

In the Solomons, the integration process began in 2008 with the formation of the Ministry of Environment, Conservation and Meteorology (MECM) that consisted of three government divisions: Environment/Conservation, Climate Change and Meteorology. One reason for integrating Environment/ Conservation with Climate Change and Meteorology was that there had been conflict between Forestry and Environment when they were in the same ministry, due to their different policy agendas: Environment focused on conservation whereas Forestry looked at forestry industry and use of forests. Another factor supporting the integration was the rise in climate change issues globally, regionally and nationally, which resulted in the need for it to be a separate division. Previously climate change was in a small unit within the Meteorological service.

Another reason was the synergies between the functions of the divisions. For example between climate change adaptation and disaster risks, avoiding duplication of functions and existing institutional arrangements, and combining limited capacity and resources. The institutional arrangement in the Solomons is similar to Vanuatu in that EM & DRR sit within the Police ministry. The National Disaster Management Office was later incorporated in this ministry in 2010, hence the name change to Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM). This was because of the synergies between CCA (under Climate Change Division) and DRR (under NDMO) and the functions of the remaining two divisions.

Core factors promoting robust integration in the Solomon Islands have been identified as:

- Better use of external funds which in this case means emphasis on implementation rather than further planning
- A single point for handling external aid funds and support;
- Capacity development within internal and local structures;
- and national governance structures for the implementation of integration to replace externally (donor) driven programs.

The main strategies and policies driving the integration are:

- the Solomon Islands National Development Strategy 2011-2020 (Objective 7: Effective Response to Climate Change and Manage the Environment and Risks of Natural Disasters”);

- Current Government Policy Statements 2010 (Policy Statement 5.1.8 (a). “Increase awareness on the principles of adaptation and mitigation on climate change”;
- Policy Statement 5.1.2 (i). “Strengthen capacity of National Disaster management Office to improve disaster preparedness and risk management plans in the country”, and National Climate Change Policy 2012-2017 & NDRM Plan (2010) (Relevant Policy Directive: 8.3 Vulnerability and Adaptation and Disaster Risk Reduction;
- NDRMP – Part 1 Section 1 – institutional mechanisms for addressing CCA and DRR).
- NAPA – National Adaptation Plan of Action 2008. It sets the seven urgent and immediate sectors for adaptation planning and implementation.
- NCCP – The National Climate Change Policy 2012-2017. The objective of the NCCP is to provide a framework to: Integrate climate change considerations and support the implementation and achievement of the Solomon Islands Development Strategy and other regional and international policies and frameworks, and to guide the government and its partners efforts in ensuring that; a) The people, natural environment and economy of the country are resilient and able to adapt to the predicted impacts of climate change, and b) The country benefits from clean and renewable energy, energy efficiency and other mitigation technologies that improves people’s livelihoods and the national economy, is environmentally sustainable and contributes to global efforts to reduce GHG emissions and global warming.

### 3.3.1. Challenges in the integration process

The experience in the Solomons points to the difficulty in having myriad frameworks, policies and regulations in place that are supposed to showcase the most prominent priorities and directions. For example, The Solomons has conducted its UN-supported National Adaptation Plan for Action (NAPA), National Adaptation Plan (NAP), and Joint National Action Plan (JNAP), which are all supposed to provide direction for climate change adaptation. On top of these plans, there are country policies, strategies, frameworks and legislation, including DRR and CCA, and climate change communication.

Despite these national institutions, the Solomons often face a situation where foreign aid agencies come to the country with their own frameworks, methods, and tools, which might or might not align with the government’s needs and priorities. The need to satisfy these individual agency frameworks has not necessarily contributed to coherent action, but instead consumed resources and expertise and dissipated national efforts. This has been a challenge for the government as many activities are not

necessarily connected to government agencies but in the end communities perceive the government to be responsible for these activities.

Particular challenges have been complex external structures and funding mechanisms:

- multiple planning initiatives with limited implementation (for example NAPs, NAPAs, JNAPs, Initial and on-going national Communications);
- weak and siloed internal governance (support is needed to build national capacity);
- and weak local government and weak connections into hundreds of rural villages (everyone should work within a consistent framework for example Village DRM (Disaster Risk Management) Planning Template).

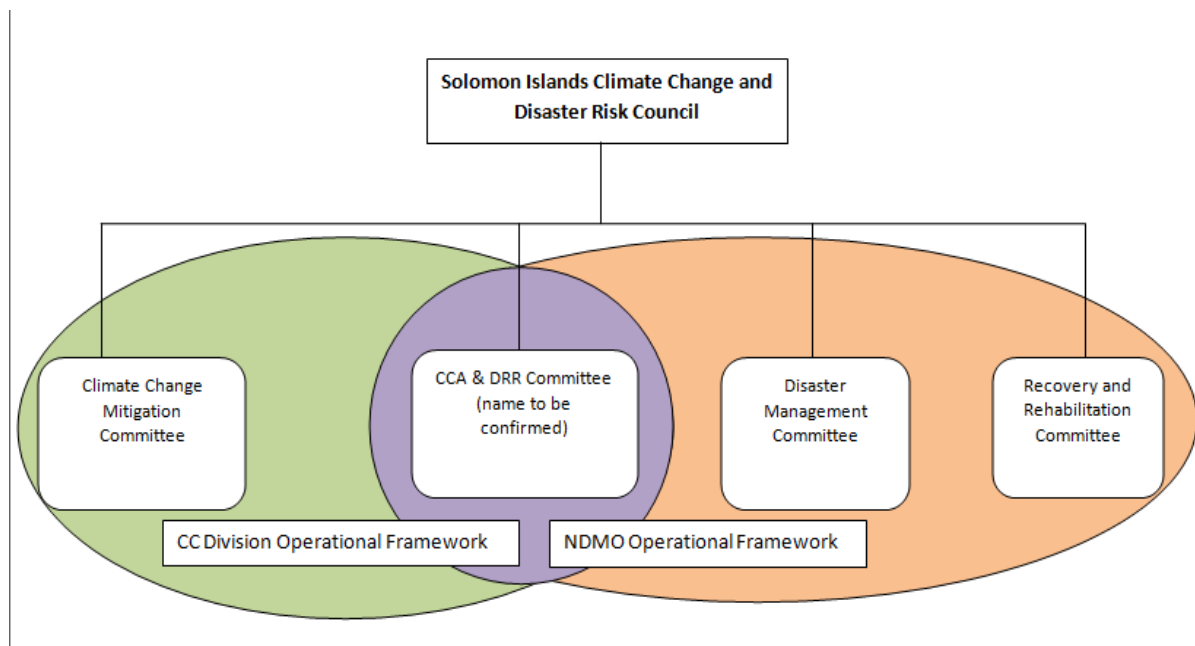
In the Solomons, the experience has been that many external funders work outside the current governance structures, and often do not connect or align with country priorities and needs.

The Solomons' approach therefore has been to focus more closely on resilient development and to reduce overlap and duplication between different agencies with the slogan "stop filling a vacuum, help us to fill the vacuum". This has enabled more collaborative approaches where priorities and assessment methods are discussed between the parties where country priorities and donor interests can be aligned more effectively. However, the underlying problems in the everyday operational environment also hinder integration and activities. For example, in Honiara fire services are under-resourced and not always able to function in an emergency due to e.g. lack of adequate equipment or no water in fire trucks.

### **3.3.2. Actors involved and institutional structure**

Given the multitude of domestic and international actors, frameworks, and policies, more comprehensive organization structures are needed to link and combine the many efforts and projects. The policies and strategies should be aligned to support each other including the institutional structures (Figure 2).





*Figure 2. Organisational structure and aligned policies and frameworks.*

Some good examples of integration are the Solomon Islands Climate Change Assistance Program (provided by EU general budget support) and CRISP (WB implemented program), which show a much clearer integration of CCA & DRR. However, a recent example was mentioned where two large donor projects were proposed which had significant overlap and duplication. The Solomon government officials identified the overlaps, and sat down with both donors and suggested ways these two projects could complement each other.

### 3.3.3. Key milestones in this integration process

- 2008 – Ministry of Environment, Conservation and Meteorology (MECM) was formed combining three government divisions – Environment/Conservation, Climate Change and Meteorology.
- 2010 – NDMO became a new division within MECM, hence a slight change to the ministry's name to MECMD (Ministry of Environment, Climate Change, Disaster Management & Meteorology).

In recognition of the multi-sectoral nature of risk, MECMD and MDPAC are now working to develop 'An Integrated National Action Framework' (INAF), which will be a Framework for Resilient Development. The Framework would be a practical partner to the National Development Strategy and provide guidance to sector line ministries in order to make *all* development more resilient.

#### 4. Conclusion

The integration of climate change adaptation (CCA) and disaster risk reduction (DRR) has been internationally recognised as a robust approach that can address multiple simultaneous risks and hazards. To date the literature on the idea of integration is well advanced, however, it is limited in terms of the practical implementation of this agenda. This report has focused on exploring the practical experiences of those tasked with implementation. It first explored the range of constraining and enabling factors in implementation, and then provided insights into national and agency-specific integration processes in the south-west Pacific region.

The findings of the meeting illustrate the different institutional designs used to implement the integration agenda in the region. In Vanuatu and the Solomon Islands, specific funding and donor support have enabled institutional integration that has resulted in a more streamlined approach of responsibilities and priorities. While this support has enabled governments to merge agencies and to be clearer about responsibility allocation, gaining support for institutional integration, and mainstreaming CCA & DRR across all sectors within government, was still a challenge. . In Australia, integration is mainly done through mainstreaming CCA and DRR within government sectors but not necessarily with increased budgetary support or with a single focal point for both activities.

Many similarities were identified between Australia, Vanuatu, and the Solomon Islands including geographical isolation of communities and challenges in securing safe evacuation during disasters. Sharing knowledge and experiences across the region was deemed crucial as this has the potential to harness the lessons learned from different contexts. At the regional level, organisations, such as AFAC and Surf Life Saving Australia, have fostered both formal and informal networks and supported capacity building activities that are relevant in responding to the dual challenges of CCA & DRR. These networks and personal relationships are effective ways to foster closer collaboration and cooperation in the region.

The move towards more proactive thinking was evident in many of the examples to enable agencies to respond faster and better to multiple risks under a changing climate. For example, participants recognised the need to set up regional frameworks and policies that could enable faster coordination of personnel and resources during extreme events. One focal point was the assessment of response capacity and capability both at country- and agency-levels. Gaining a better understanding of the current status of agencies' capacity and capability to respond to multiple simultaneous extreme events was deemed a core component in constructing more robust and efficient practice.

Recommendations for the evolving integration agenda included:

- Having better information to make decisions on resource allocation; quantifying vulnerability and risk in DRR;
- Measuring and understanding community resilience;

- Characterising capability and measuring the response capacity and capability within EM/DRR/CCA agencies;
- Building long-term relationships through social training events; and
- Stronger and more effective monitoring and evaluation of activities and their outcomes on the ground.

The recommendations illustrate the different knowledge related needs that most agency personnel face. For example, understanding and measuring community resilience is key to knowing where capacity should be built and which strategies are most effective in increasing resilience. Knowing also the response capacity and capability of agencies, including the volunteer sector, is another area that could enable more targeted capacity building to ensure that resources are spent where most needed. Clearer identification of core capabilities within agencies, countries and across the region would also allow the rapid identification of needed expertise during disasters.

Further work and research would assist all these areas. This effort would be most useful when conducted to ensure that the results and outcomes are relevant, practice-oriented and have the potential to support and enable the implementation of the integration agenda in the region. Closer alignment of research activities with agency-specific needs and priorities can enable science to feed into practice in a more robust manner, and support these efforts at integration.

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