Advancing Integration series

Australian Government
Department of Foreign Affairs and Trade

A how-to handbook

Integrating disaster risk reduction, environment and climate change adaptation and mitigation into Australian aid projects, programmes and investments

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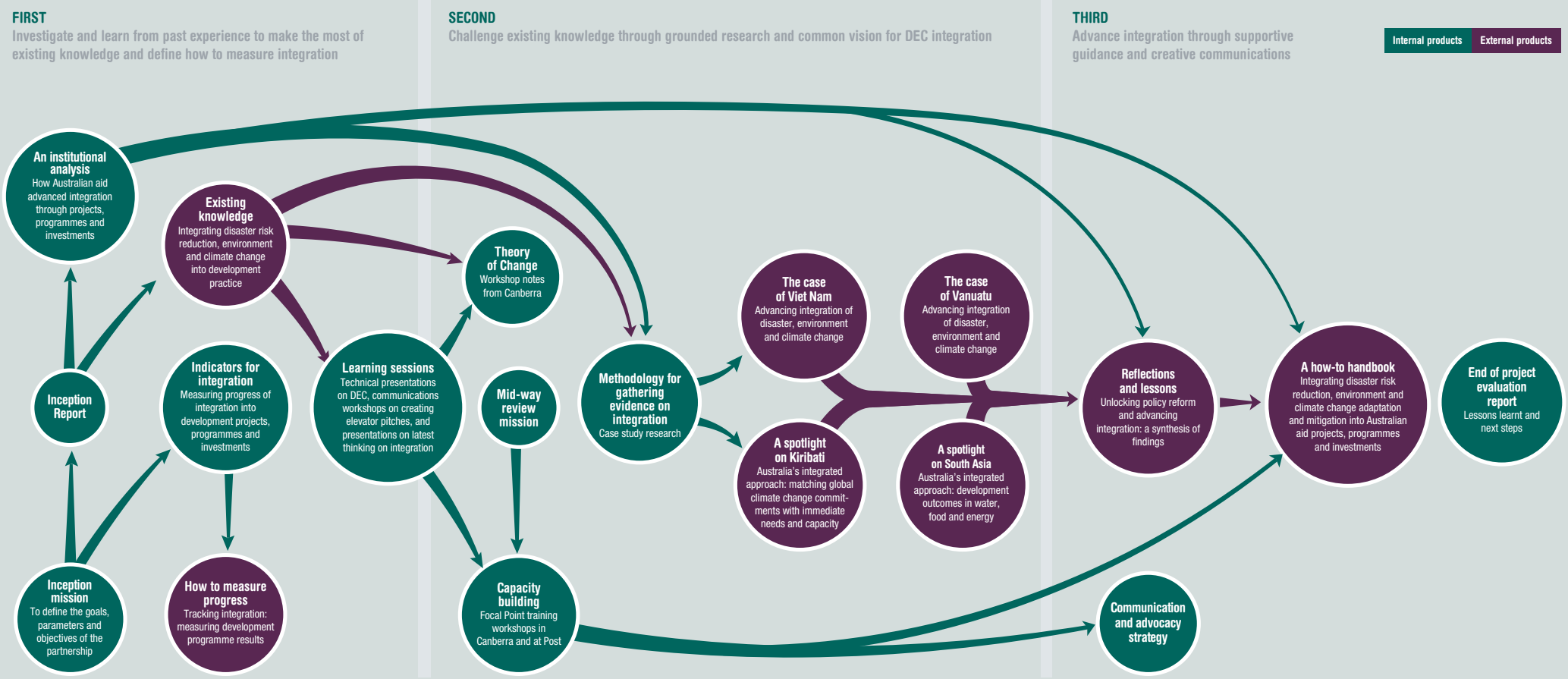
*Australian Agency for International Development (AusAID) was the Australian Government's implementing agency at the time the programmes were reviewed and since 1 November 2013 is incorporated with the DFAT.

A map of our journey

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



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ACRONYMS

DAC	Development Assistance Committee (of the Organisation for Economic Cooperation and Development)
DFAT	Department of Foreign Affairs and Trade
EIA	Environmental Impact Assessment
EPBC Act 1999	Environmental Protection and Biodiversity Conservation Act 1999
GHG	Greenhouse gas
GIZ	German Development Cooperation (Gesellschaft für Internationale Zusammenarbeit)
IPCC	Intergovernmental Panel on Climate Change
M&E	Monitoring and Evaluation
MEA	Multilateral Environmental Agreement
NAMA	Nationally Appropriate Mitigation Action
NAPA	National Adaptation Programme of Action
NGOs	Non-Governmental Organisation
ODI	Overseas Development Institute
SIDA	Swedish International Development Agency
ToR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change

GLOSSARY OF TERMS

Adaptation (to climate change)	In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate.
Capacity building	Long-term continual process of development on an individual level, an institutional level and a societal level that allows building and enhancing existing knowledge and skills, institutions and accountable, responsive wider administrative structures.
Climate change	A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.
Climate change projection	A projection of the response of the climate system to emissions or concentration scenarios of greenhouse gases and aerosols, or radiative forcing scenarios, often based upon simulations by climate models.
Climate variability	Variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate at all spatial and temporal scales beyond that of individual weather events.
Disaster	Severe alterations in the functioning of a community or a society due to hazardous physical events interacting with vulnerable social conditions, leading to widespread adverse human, material, economic, or environmental effects that require immediate emergency response to satisfy critical human needs and that may require external support for recovery.
Disaster risk management	Processes for designing, implementing, and evaluating strategies, policies, and measures to improve the understanding of disaster risk, foster disaster risk reduction and transfer, and promote continuous improvement in disaster preparedness, response, and recovery practices, with the explicit purpose of increasing human security, well-being, quality of life, and sustainable development.
Disaster risk reduction	Denotes both a policy goal or objective, and the strategic and instrumental measures employed for anticipating future disaster risk; reducing existing exposure, hazard, or vulnerability; and improving resilience.
Environmental degradation	The deterioration of the environment through depletion of natural resources.
Environmental sustainability	Meeting the needs of the present without compromising the ability of future generations to fulfill their needs with respect to environmental resource availability.
Extreme (climate) events	Unusual, severe or unseasonal weather at the extremes of the historically experienced distribution in that region, in terms of frequency and/or intensity.
Food security	Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Aspects of food security include: availability, access, utilisation, and stability (ie long term dependability of the production level of the food source).
Hazard	The potential occurrence of a natural or human-induced physical event that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, and environmental resources.
Impacts	Effects on natural and human systems. In this report, the term ‘impacts’ is used to refer to the effects of physical events, of disasters, and of climate change on natural and human systems.

Livelihoods	Means of securing the basic necessities - food, water, shelter and clothing. Analysis of livelihoods involves understanding social, physical, financial, natural and human resources of an individual or family as mediated through vulnerability and specific external contexts to create livelihood options and strategies.
Micro credit scheme	Micro credit schemes are the loan of small amounts of money to very poor households at commercial, or near-commercial rates.
Mitigation (of climate change)	A human intervention to reduce the sources or enhance the sinks of greenhouse gases.
Resilience	The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.
Risk assessment	The determination of quantitative or qualitative value of risk related to a concrete situation and a recognised threat (also called hazard). Quantitative risk assessment requires calculations of two components of risk: the magnitude of the potential loss , and the probability that the loss will occur. Acceptable risk is a risk that is understood and tolerated usually because the cost or difficulty of implementing an effective countermeasure for the associated vulnerability exceeds the expectation of loss.
Safety net programme	Social safety nets, or 'socio-economic safety nets', are non-contributory transfer programmes seeking to prevent the poor or those vulnerable to shocks and poverty from falling below a certain poverty level. They include cash transfers, food-based programmes, in-kind transfers, public works, price subsidies for food, electricity or transport, and fee waivers/exemptions for health care and school.
Social protection measure	These are concerned with preventing, managing, and overcoming situations that adversely affect people's wellbeing. Social protection consists of policies and programmes designed to reduce poverty and vulnerability by promoting efficient labour markets, diminishing people's exposure to risks, and enhancing their capacity to manage economic and social risks, such as unemployment, exclusion, sickness, or disability.
Sustainable development	Development that meets the needs of the present without compromising the ability of future generations to fulfill their own needs.
Vulnerability	Environmental vulnerability: the extent to which changes could harm a system, or to which the community could be affected by the impact of a hazard or exposed to the possibility of being attacked or harmed. Personal vulnerability: the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard. The concept is relative and dynamic. Vulnerability is most often associated with poverty, but it can also arise when people are isolated, insecure and defenceless in the face of risk, shock or stress.
Vulnerability assessment	The process of identifying, quantifying, and prioritising (or ranking) the vulnerabilities in a system. Physical, economic, social and political factors determine people's level of vulnerability and the extent of their capacity to resist, cope with and recover from hazards.
Vulnerable populations or groups	Vulnerable populations are members of a society who are less able to recover from external hazards. People differ in their exposure to risk as a result of their social group, gender, ethnic or other identity, age and other factors.

SECTION 1

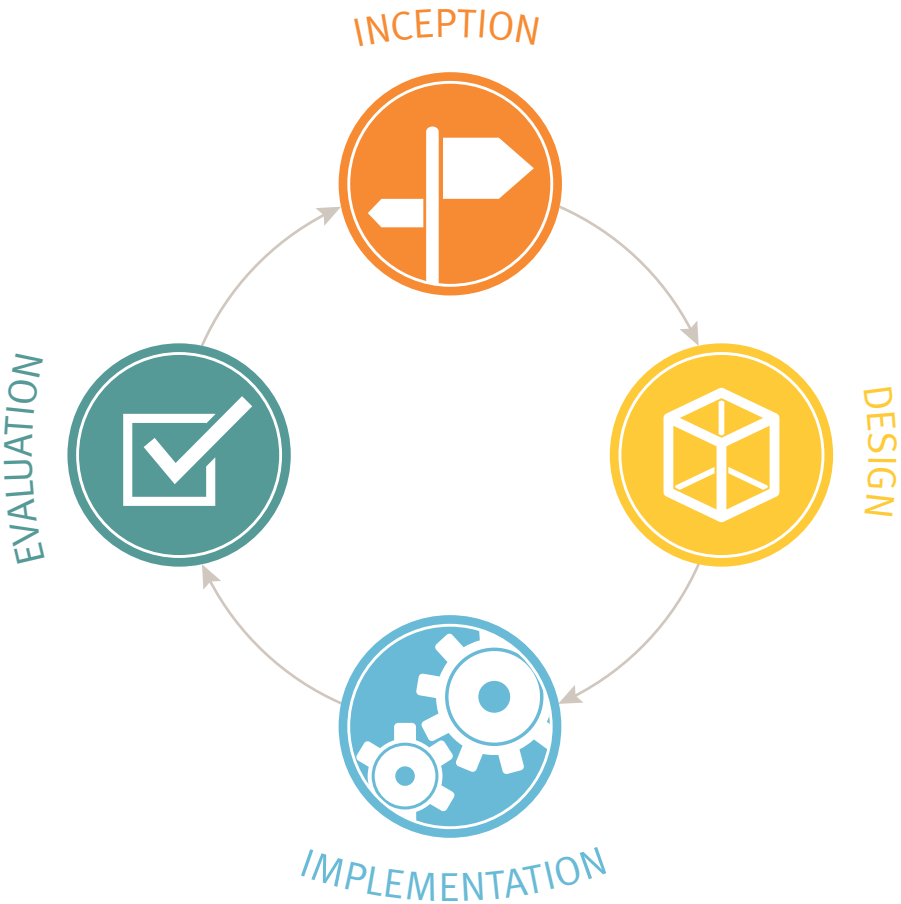
Introduction

This guidance is to support DFAT staff at Post and in Canberra to protect new and existing development and humanitarian investments across all sectors from the risks of recurring or large-scale natural hazards and environmental impacts that could threaten development progress. It also urges aid programme staff to take advantage of any opportunities their programme may provide for reducing disaster risk, avoiding environmental degradation or addressing climate change.

This guidance shows how to integrate disaster risk reduction, environment and climate change adaptation and mitigation (DEC) into appropriate policies and programmes to achieve development outcomes that are effective and long-lasting. It does this through three logical steps: assessment, analysis and action – the 'triple A' of DEC integration.

The main part of the document guides staff through specific steps to ensure that they have sufficiently considered and appropriately integrated DEC into their project, programme or investment at each of the four phases of the project management cycle. It will help staff to assess the project's vulnerability to DEC issues and judge whether the integration of disaster risk reduction, environment and/or climate change adaptation and mitigation is of 'low', 'medium' or 'high' priority for it. Following this, the guidance then provides practical steps for DEC integration. Regardless of where the project, programme or investment is in the project management cycle, the guide provides a menu from which suitable actions can be selected. It also explains how and why DEC is relevant and provides examples of similar integration being carried out elsewhere. Integration is smart programme management, as DEC supports delivery of sustainable outcomes.

The guidance is intended to support the integration of DEC in specific investments rather than high-level strategies. The final section provides links to further information on DEC available online. These include methods for risk assessment, tools for project planning and knowledge sharing platforms.



What, why and how to integrate DEC

Disasters, environmental degradation and climate change pose threats to the achievement and sustainability of development outcomes. DFAT's ambition to integration is to consider disaster risk reduction, environment and climate change as a joint endeavor in order to strengthen aid effectiveness. This is especially true for the integration into key sectors such as energy, agriculture, water, natural resources, health and infrastructure. The relationships between disasters, environment and climate change are complex: for example, extreme weather events (e.g. storms) influenced by climate change can wreak havoc on environmental systems (e.g. mangrove forests) and this in turn can enhance the risk of disasters (e.g. floods). There are also a range of opportunities involved in integrating the complexity of DEC into existing and new development initiatives: for example, addressing disaster risk can be a key driver of investment and increased economic growth.

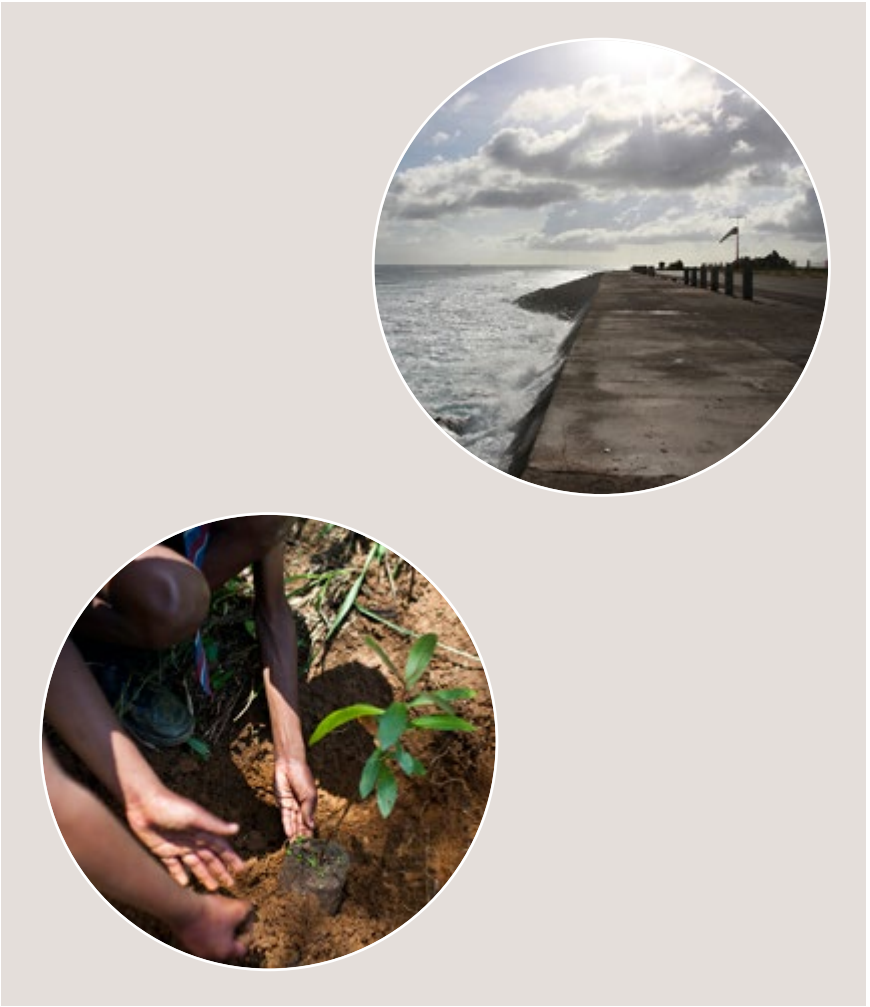
In developing countries, the incidence of disasters, the management of the natural environment, and the impact of climate change strongly influence people's vulnerability and the rate of development progress. The positive impact of development initiatives in most cases will be enhanced when people's vulnerability to climate change, disaster risk and negative environmental changes is minimised. There are a range of risks a project may be exposed to, and a robust analysis of DEC issues before or during a project may enhance opportunities available and guide options in a clearer way towards 'low regret' approaches that increase resilience. It is also important to appropriately consider DEC issues and prevent them from undermining the effectiveness and sustainability of DFAT initiatives; as the resilience of nations is an enabler of development.

Furthermore, DFAT staff can also support countries to develop opportunities through better disaster risk planning for the long-term development programmes. They can also ensure that Australia's assistance does not harm the environments of developing countries and builds the resilience of investments in DRR and climate change.

For some partner countries DEC may be a strategic priority, such as in hazard-prone countries where disasters will need to be considered as a risk to the achievement of the country's strategic goals. For others DEC may be important as a cross-cutting theme. This requires DFAT to be flexible and focus on highly climate sensitive and/or hazard sensitive sectors, programmes and countries, and importantly, where DFAT's development activities could have significant impacts on the environment. In some contexts, the integration of other issues such as disability, anti-corruption, HIV/AIDS or child protection may be more significant to poverty reduction and should take priority.

Working across sectors on DEC integration will also help to improve results: by looking for opportunities to produce and communicate robust evidence on risk sharing; by examining the ways in which climate change and disasters can undermine the success of programmes; or by providing evidence for the manner in which the inclusion of disaster preparedness plans will improve long-term results.

The ultimate objective of DEC integration is to promote and support developing countries' own abilities to better manage disaster risk, environmental sustainability and climate uncertainty to achieve their desired development outcomes.



SECTION 2

Examples of sectoral DEC integration

Across all sectors, determine and weigh up the positive relationships between disaster risk reduction, environment and climate change adaptation and mitigation for your sector investments using credible robust data and information; work together for maximum benefit and minimum risk outcomes, taking into account the links between sustainable and socio-economic development.
DFAT sector-based Focal Points are available for consultation and helpful sector specific tools are found in Section 4.

Practical ways to integrate DEC into health programmes

Food, water and shelter are fundamental to good health and are all affected by the environment and climate change. Disasters may physically affect health infrastructure and services, increased temperature promotes the spread of disease and a poor environment negatively impacts health. To combat these:

- Engage in dialogue with donors and government on risk as a threat to investments in health and how they can identify and mitigate these risks in national plans.
- Ensure hospital safety standards are met and maintained through the use of sustainable hazard-resilient methods and materials.
- Support research and use data and information that examines the likely impact of climate change on the disease profile of a country or region.
- Understand the changes that will be necessary for the health system to manage the impact of climate change particularly on the most vulnerable.
- Promote understanding of climate warming on the spread of disease and take action.
- Look for opportunities to improve indoor air quality through the use of alternative fuels or improved stoves to improve health, particularly among women.
- Promote the use of available handbooks and management tools that provide practical guidance to hospital managers for assessing the vulnerabilities of health facilities and processes to disaster events and for putting contingency plans in place.

Practical ways to integrate DEC into water and sanitation programmes

The environment and climate change are crucial factors in the viability of water supply and sanitation facilities and water efficiency is paramount. Good waste management and sanitation practices are essential for protecting the environment from pollution and therefore not undermining poor people's livelihoods.

- Increase dialogue with other donors and partner governments on the fundamental importance of the environment in water and sanitation activities.
- Promote the use of systemic environment impact assessments before detailed plans of services are prepared.
- Include climate forecasts, water resource assessments and current natural hazard profiles at the design stage of new programmes and design efficient irrigation, drainage and storm water systems that take account of projections.
- Ensure that water and sanitation infrastructure is resilient to climatic and non-climatic hazards and will remain functional during and after a hazardous event. Ensure that water sources meet capacity requirements and are made safe from contamination caused by natural hazards such as floods and cyclones.
- Ensure adequate provision of flood prevention systems, water storage units such as dams and individual rainwater tanks.
- Consider alternative water supply options (for example, multiple sources and recycled water systems) and conservation measures (for example, restrictions on water use).
- Use mesh and specific filters to minimise the potential of stationary water becoming breeding areas for mosquitoes.
- Enable the decentralisation of service delivery by supporting small water and sanitation enterprises to improve access to water and sanitation and local livelihoods.
- Water management and efficiency should be optimised possibly through improved water management and spreading awareness on judicious use.

Practical ways to integrate DEC into education programmes

Children's nutritional health, and thus their ability to attend school, is directly affected by the environment and climate change. If families do not have access to safe water, food or essential household materials, children may divert school time to collect these. Physical disasters may disrupt the delivery of classes if no alternative provisions are made.

- Encourage authorities to provide teacher training on DEC risk and to include DEC issues in the school curriculum.
- Promote hazard-resilient construction for new schools.
- Encourage the introduction of features in school buildings that allow their use as emergency shelters.
- Work with national stakeholders at a policy level to integrate the principles, values and practices of sustainable development into all aspects of education.
- Ensure that the benefits of sourcing materials locally, which facilitates local construction and on-going maintenance, are adequately weighed against any negative environmental sustainability impacts.

Section 4 Further Information has a list of tools specifically developed for integrating DEC in the Education sector.

Practical ways to integrate DEC into agriculture and food security programmes

Poor environmental practices in agriculture can damage the environment and negatively affect food security. Climate change and the variability of weather can have major effects on crop productivity as can access to markets. Disasters may also play a major role in the destruction of fields, food stores and livelihoods.

- Encourage regular communication and collaboration between weather and disaster departments, food security agencies and safety net programs.
- Incorporate climate change projections at the design phase of agricultural programs and encourage improved preparedness for, and resilience to, food and agricultural threats.
- Draw on local knowledge and research to understand the local environment and identify ways to minimise environmental damage and adapt to climate change.
- Build or retrofit the infrastructure needed to access markets for food and crops to ensure it is not destroyed by disasters and negative market fluctuations.
- Support a greater diversity of livelihoods and promote contingency planning and budgeting to build resilience to disasters, environmental degradation and climate change.
- Support insurance, credit schemes, starter packs and social protection measures.

Practical ways to integrate DEC into infrastructure programmes

Infrastructure such as health facilities, schools, roads, energy and water supply systems are crucial to promoting development but poorly designed infrastructure can undermine the livelihoods and health of those living in poverty. Infrastructure affects climate and the environment and is also affected by these through natural disasters and environmental degradation.

- Ensure that environmental laws are adequately addressed in capacity-building and technical assistance programmes.
- Ensure capacity technological and regulatory support for (i) environmental management and the protection of ecosystems, (ii) disaster risk reduction and livelihood resilience programming (iii) climate change screening and adaptation.
- In the design phase, use current hazard maps, climate forecasts and other available data. Avoid locating new infrastructure in areas with high risk of forest fires, flooding or storm surges.
- Undertake an environmental impact assessment (EIA) at project's design stage - a legal requirement of the Australian Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth) - and introduce disaster risk and climate change assessments for the construction of all major infrastructure to inform decision making on siting, materials and construction techniques.
- Encourage departments responsible for infrastructure to plan for the long term using information from mapping and hazard agencies (e.g. CSIRO).
- Consider climate change projections when setting the sizes of sewage systems, drains and storm water systems and factor in the effect of GHGs on air quality and health when planning transport systems. Ensure adequate provision for the disposal of harmful and hazardous waste.
- Include natural air circulation and insulation in building designs to increase energy efficiency and reduce building costs in the long term.
- Energy efficiency must be carefully considered. E.g. including natural air circulation and insulation in building designs.

Section 4 Further Information has a list of tools specifically developed for integrating DEC in the infrastructure and energy sectors.

Practical ways to integrate DEC into response and recovery programmes

Natural and humanitarian disasters can devastate lives, livelihoods and economies. Building preparedness for D, E and C is vital for reducing people's vulnerability and alleviating poverty.

- Ensure implementing partners such as the United Nations, non-government organisations and the World Bank address D, E and C in proposals for emergency response and recovery programs, and that these are outlined in contract specifications for all such programs.
- Ensure that resilience to disasters, environmental degradation and climate variability is a national and local priority with a strong institutional basis for implementation. Develop mechanisms to actively engage local government and communities in planning and implementation.
- Conduct vulnerability assessments to identify risk and implement public information programmes to ensure the population is aware of the risks and how to respond to warnings.
- Apply a multi-hazard approach to all recovery and reconstruction efforts so that the full range of potential disasters is considered.
- Build response capacity to cope with an increase in the frequency and intensity of extreme weather events, future climate uncertainty and longer term risks.
- Promote the use of rapid environmental assessments before implementing recovery and reconstruction programs.
- Ensure damaged infrastructure and housing are rebuilt to withstand likely natural hazards using available hazard and exposure data and climatic predictions.
- Use existing social welfare mechanisms to provide timely cash and non-cash support to those affected by a disaster.
- Ensure that future budgets allow for reducing disaster risk and managing the environment and that appropriate specialists are included in management teams to help with the siting, planning and management of disaster relief and recovery efforts.

Section 4 Further Information has a list of DEC integration tools relevant to response and recovery programmes, including 'Being Ready' by CARE, and a number of tools supporting disaster risk reduction.

SECTION 3

‘Triple A’ Guidance for integrating DEC: Assessment, Analysis, Action

This guidance will help staff to take practical steps and ensure that DEC are appropriately integrated in projects, programmes and investments at every point in the project management cycle:

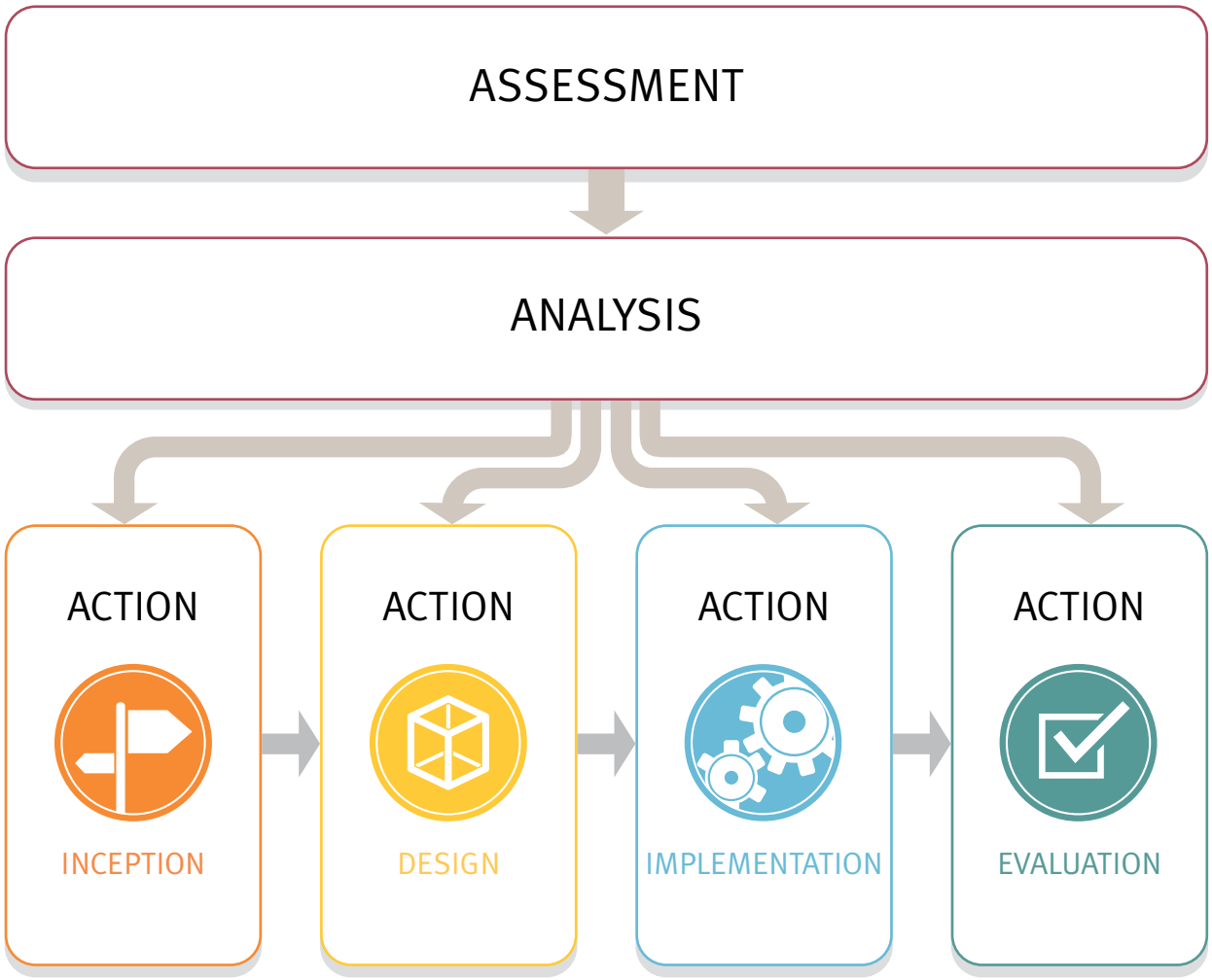
1. Inception
2. Design
3. Implementation
4. Evaluation

How DEC is integrated will vary by country and region and staff are encouraged to choose a suite of methods as appropriate.

Ideally, DEC will have been integrated at the inception phase and during all subsequent phases of the project management cycle. If not, you are strongly advised to use this guidance to find out whether you need to retrofit DEC into the current and all future phases of your project, programme or investment. These pages will guide you from any starting point in the project management cycle.

How the guidance is organised

Complete the assessment and analysis sheets before moving on to reviewing the DEC integration actions suggested for the stage of aid/project cycle that your initiative is in.



1 Assessment

10-minute Q&A to help you assess if your project or activity is influenced by D, E or C, and whether it is of LOW, MEDIUM or HIGH priority for further analysis.

2 Analysis

20-min checklist to help you more closely analyse the risks and effects (positive and negative) of the issues you have identified at the Assessment stage. There are two aspects to consider: hazard impact and risk reduction: disasters and climate change; and environmental impact.

3 Action

A menu of suggested actions tailored to each phase of the project management cycle. These actions will help you to more effectively integrate DEC and minimise risk by encouraging you to think about the context in which DEC integration is taking place, and about your approach, the users, stakeholders and institutions involved. If retrofitting DEC considerations into your project, programme or investment, you are encouraged to take appropriate actions from previous project management cycles.

Guidance Sheet 1 – Assessment

Answer Yes (✓), No (✗), or Don't know (DK) in response to each question.

		✓ ✗ DK
1.	Is the initiative located in an urban, coastal or marine area, an area susceptible to natural hazards, or any other environmentally-sensitive or protected area?	
2.	Does the initiative focus on tourism, agriculture, forestry, fisheries, water, energy, education or health sectors?	
3.	Are similar development interventions in this location already experiencing impacts due to adverse natural hazards, environment or climate change effects?	
4.	Is any permanent physical infrastructure created by this initiative (i.e. that cannot be adjusted periodically)?	
5.	Does the initiative focus on vulnerable populations and groups (e.g. elderly, young, poor, disabled and/or women) as a primary target?	
6.	Is disaster risk management a significant focus of the initiative?	
7.	Is environmental management and/or climate change a significant focus of the initiative?	
8.	If DEC is NOT integrated into this initiative, do you think the outcomes of the initiative will be affected negatively?	
9.	Might the initiative lead to or exacerbate the likelihood of local disasters (e.g. building on steep mountain sides)?	
10.	Are greenhouse gas emissions (carbon dioxide or equivalents) likely to increase as a result of the initiative?	
11.	**Does the initiative negatively impact the environment?**	
12.	**Are disaster risk, climate change and/or environment a priority in the overall development strategy of the national government or DFAT country programme strategy where your initiative will be located?**	
	TOTAL NUMBER OF TICKS	
	TOTAL NUMBER OF DON'T KNOWS	

NOW PLEASE TURN TO THE NEXT PAGE AND WORK OUT THE PRIORITY USING THE NUMBER IN THE BOX ABOVE

RANKING

Score on ranking (TOTAL NUMBER OF TICKS AND 'DON'T KNOWS' FROM ABOVE):

If your score is 0–4 your initiative is considered LOW PRIORITY

This is low priority for further assessment of the impacts of disaster risk reduction, environment and climate change adaptation and mitigation on the project outcome. You do not need to continue using this guidance on this initiative, but further information on disaster risk reduction, environment and climate change adaptation and mitigation is available on the DFAT site here.

If your score is 5–8 your initiative is MEDIUM PRIORITY

This is medium priority for further assessment of the impacts of DEC on the project outcome. We advise progressing to Guidance Sheet 2.

If your score is 9–12 your initiative is HIGH PRIORITY

This is high priority for further assessment of the impacts of DEC on the project outcome. Please follow up with further screening of this project for DEC impacts using Guidance Sheet 2.

If you have answered YES to Q11 and/or Q12 please continue with Guidance Sheets 2 and 3 regardless of your total score. You may wish to seek advice from the internal environment team regarding compliance with the Environment Protection and Biodiversity Conservation Act of Australia (1999).

My initiative is (circle as appropriate):

LOW PRIORITY

MEDIUM PRIORITY

HIGH PRIORITY

Any additional comments:

Guidance Sheet 2 – Analysis

IMPACTS OF DISASTER RISK, ENVIRONMENT AND CLIMATE CHANGE

This second guidance sheet will help you think through connections between disasters, environment and climate change on the outcomes of your initiative, and to highlight areas where you may need more information.

Many activities in the DFAT aid programme are affected by natural disasters, environment and climate change. Some activities in the aid programme may also positively impact these areas, reducing risk, improving the environment and increasing resilience to climate change and climate variability. Guidance Sheet 2 will help you consider and identify what information you have, and what you may need to further incorporate, in your initiative. This information will improve the effectiveness of your initiative by enabling you to plan better for any potential risks, and also will help you limit negative impacts to the environment. You are asked also to detail positive impacts from the project, so that these can be documented and potentially used as good practice examples by other programmes.

Guidance Sheet 1 was a short assessment process. This Guidance Sheet 2 asks you to record more in-depth analysis of D, E and C impacts, and leads into Guidance Sheet 3.

This Guidance Sheet should take about 20 minutes to complete. There are 2 tables and a summary sheet. The first refers to how your initiative might be affected by hazards and climate change, and the second examines what impacts the initiative might have on the environment. You are not expected to have complete information for all questions. One of the most important outcomes is to assess where information is incomplete.

You do NOT need to involve further specialist assistance if you do not have the information requested, but you may wish to complete this with assistance from your DEC Focal Point. If you are lacking information, just note that you do not have it, and there will be opportunities to plan further actions in Guidance Sheet 3.

At the end of completing Guidance Sheet 2 you will fill out a short summary sheet detailing the main DEC issues associated with your project, gaps in knowledge, and action points; which you can share with team members or take through to the next stage (Guidance Sheet 3).

Examples of integration in health, water and sanitiation, education, agriculture and food security, infastructure and humanitarian programmes are given in Section 2 (p.10—12). You might find these useful for ideas in completing this exercise.

If you are interested in analysing DEC issues more deeply, Section 4 Further Information has a list of DEC integration tools that include impact, vulnerability and risk assessment, diagnosis, and project planning tools.

2A. HAZARD IMPACT AND RISK REDUCTION: DISASTERS AND CLIMATE CHANGE

Introduction

In this first part of Guidance Sheet 2 we ask you to assess impacts of natural hazards and events that may be due to existing hazard risk, or climate change.

"Disasters can wipe out years of hard-won development progress and devastate lives and livelihoods. A disaster occurs when a hazard - a natural event like an earthquake or flood - severely disrupts a community's survival, ability to carry out their daily lives and to cope unaided."

(DFAT, 2013)

Key concepts are defined in the adjacent table. For more information, see the DFAT/AusAID Disaster Risk Reduction Policy (2009). For a progress report on the implementation of this refer to the AusAID DRR strategy from July 2012.

Climate change affects DFAT initiatives in the short term and the long term. Short-term climate change affects variability in rainfall and temperature. In particular, short-term impacts include the onsets of certain seasons changing (early or late rains in tropical or semi-arid areas) and more extreme weather and short-term climate fluctuations.

In the long term climate change will cause modifications in rainfall, sea-level rise, temperature and will increase uncertainty about severity and frequency of extreme events.

Key concepts on DEC

Vulnerability: "Vulnerability ... can be defined as the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard. The concept is relative and dynamic. Vulnerability is most often associated with poverty, but it can also arise when people are isolated, insecure and defenceless in the face of risk, shock or stress."

Hazard: "Threatening event, or probability of occurrence of a potentially damaging phenomenon within a given time period and area." These can be natural hazards (earthquakes, cyclones, disease epidemics) or man-made hazards (conflicts, famine, industrial and transport accidents, environmental degradation).

Disaster: "A disaster is a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins."

The potential for a hazard to become a disaster is determined by a complex relationship between a hazard and the inherent vulnerability and resilience (or capacity to bounce back, cope, or absorb shocks) of a population. Disaster risk reduction refers to efforts that aim to limit the damage and loss caused by the adverse impacts of natural disaster events. It includes systematic efforts to analyse and manage the causal factors of disasters.

Climate variability: "Climate variability refers to shorter term (daily, seasonal, annual, inter-annual, several years) variations in climate" (South Eastern Australian Climate Initiative).

Climate change: "The gradual expected temperature rise may seem limited (with a likely range from 2 to 4 degrees Celsius predicted for the coming century), however ... along with the rising temperature, known as global warming, we experience:

- An increase in both frequency and intensity of extreme weather events: more prolonged droughts, floods, landslides, heat waves, and more intense storms;
- The spreading of insect-borne diseases such as malaria and dengue to new places where people are less immune to them;
- A decrease in crop yields in some areas due to extreme droughts or downpours and changes in timing and reliability of rainy seasons;
- Global sea-level rise of several cm per decade, which will affect coastal flooding, water supplies, tourism, fisheries etc. Tens of millions of people will be forced to move inland;
- Melting glaciers, leading to water supply shortages."

All sources: International Federation of the Red Cross and Red Crescent Societies, 2013 except where specified

HOW MIGHT YOUR INITIATIVE BE AFFECTED BY CURRENT OR FUTURE HAZARDS?

Instructions:

In the following table we ask you to consider the potential negative impacts of various hazards on your initiative, and also any positive impact of the initiative on the effects of the hazard. Please also consider if hazards may increase or decrease in severity, frequency or impact in the future, if you know this.

If the hazard definitely does NOT occur in the region of your initiative, please state not applicable (N/A). If you do not know, write DK.

An example is given of a planned school building and education project in India.

Hazard	Would the hazards described below have any negative impacts on the initiative?	If yes, how?	If yes, what measures do you think could be brought in to the current conceptual stage, or at a future stage, to address these negative impacts?
EXAMPLE- *Flood*	*EXAMPLE-* *Yes.*	*EXAMPLE-* *The impact of this education initiative will be reduced as children will be unable to get to school.* *Floods currently experienced about every 5 years; 50-100% pupils unable to get to school for 1-5 months.*	*EXAMPLE-* *Curriculum design is part of this initiative and we are implementing a module on how children can prepare for floods.*
Earthquakes			
Landslides			
Avalanche			
Volcanic activity			

Hazard	Would the hazards described below have any negative impacts on the initiative?	If yes, how?	If yes, what measures do you think could be brought in to the current conceptual stage, or at a future stage, to address these negative impacts?
Tidal wave/tsunami/storm surge			
Flood			
Hurricane/cyclone/ typhoon/tropical storm			
Sea-level rise (slow onset climate change)			
Heavy rainfall/ precipitation			
Drought			
Temperature extremes (high / low)			
Wildfires			

Hazard	Would the hazards described below have any negative impacts on the initiative?	If yes, how?	If yes, what measures do you think could be brought in to the current conceptual stage, or at a future stage, to address these negative impacts?
Disease epidemics			
Industrial accidents			
Complex emergencies– e.g. food insecurity / conflict / displaced population (these may have several causes)			
Other (specify)			
Other (specify)			

2B. ENVIRONMENTAL CHANGE AND ENVIRONMENTAL IMPACT

It is important to consider the wider environmental context where the initiative might be located; and whether this might affect the success of the initiative in any way, or whether the initiative may cause environmental impacts in the region of the activity. A more detailed Environmental Impact Assessment is carried out for many DFAT initiatives. For the purposes of this assessment, we ask you to consider a limited number of environmental impacts or changes.

This process is NOT intended to replace the Environment Management Guide where screening and details of full Environmental Impact Assessment and Environmental Management Programme are taken forward. This section allows you to quickly assess some areas of environmental impact quickly before carrying out a more in-depth assessment if this is needed.

Please complete the table below.

WHAT ARE THE ENVIRONMENTAL IMPACTS OF YOUR INITIATIVE?

	Does this environmental impact already occur in your initiative's location? Describe	Possible or definite negative or positive environmental impacts of this initiative (explain)	If yes, what are these, or what might this be (for planned initiatives)?	If negative impacts are expected, can any modifications to implementation minimise these?
EXAMPLE- *Planned school building and education project in India* • *Pollution* • *Waste production* • *Others not applicable*		*EXAMPLE-* *No* *Yes – negative impacts*	*EXAMPLE-* *Construction waste*	*EXAMPLE-* *Curriculum design could include module on pollution* *Putting in specific standards around waste removal*

	Does this environmental impact already occur in your initiative's location? Describe	Possible or definite negative or positive environmental impacts of this initiative (explain)	If yes, what are these, or what might this be (for planned initiatives)?	If negative impacts are expected, can any modifications to implementation minimise these?
1. Pollution – contaminants put into natural environment Pollution types include soil, water, air and light				
2. Biodiversity – this is the level of species diversity and landscape diversity in the area				
3. Land degradation and deforestation – this includes unsustainable land use practices and decrease in productive capacity of land, ecological risk, removal/ conversion of forest area				
4. Waste production – this comprises unwanted materials produced by the initiative including household, commercial, demolition, industrial, clinical, radioactive and electronic waste				
5. Greenhouse Gas Emissions – this includes any human-produced carbon dioxide, methane and nitrous oxide (especially through burning fossil fuels, agriculture and forest destruction), which contribute to climate change				

NOW PLEASE COMPLETE SUMMARY TABLE ON NEXT SHEET

SUMMARY NOTE: DEC INTEGRATION ANALYSIS

Title of Initiative:	
Project number (if applicable):	
Name of staff member:	

Please complete a summary sheet to help you take forward this information to Guidance Sheet 3.

Please take 5 minutes to review your responses above, paying particular attention to areas of severe impacts and significantly positive opportunities from your initiative and where you require further information.

More information needed:

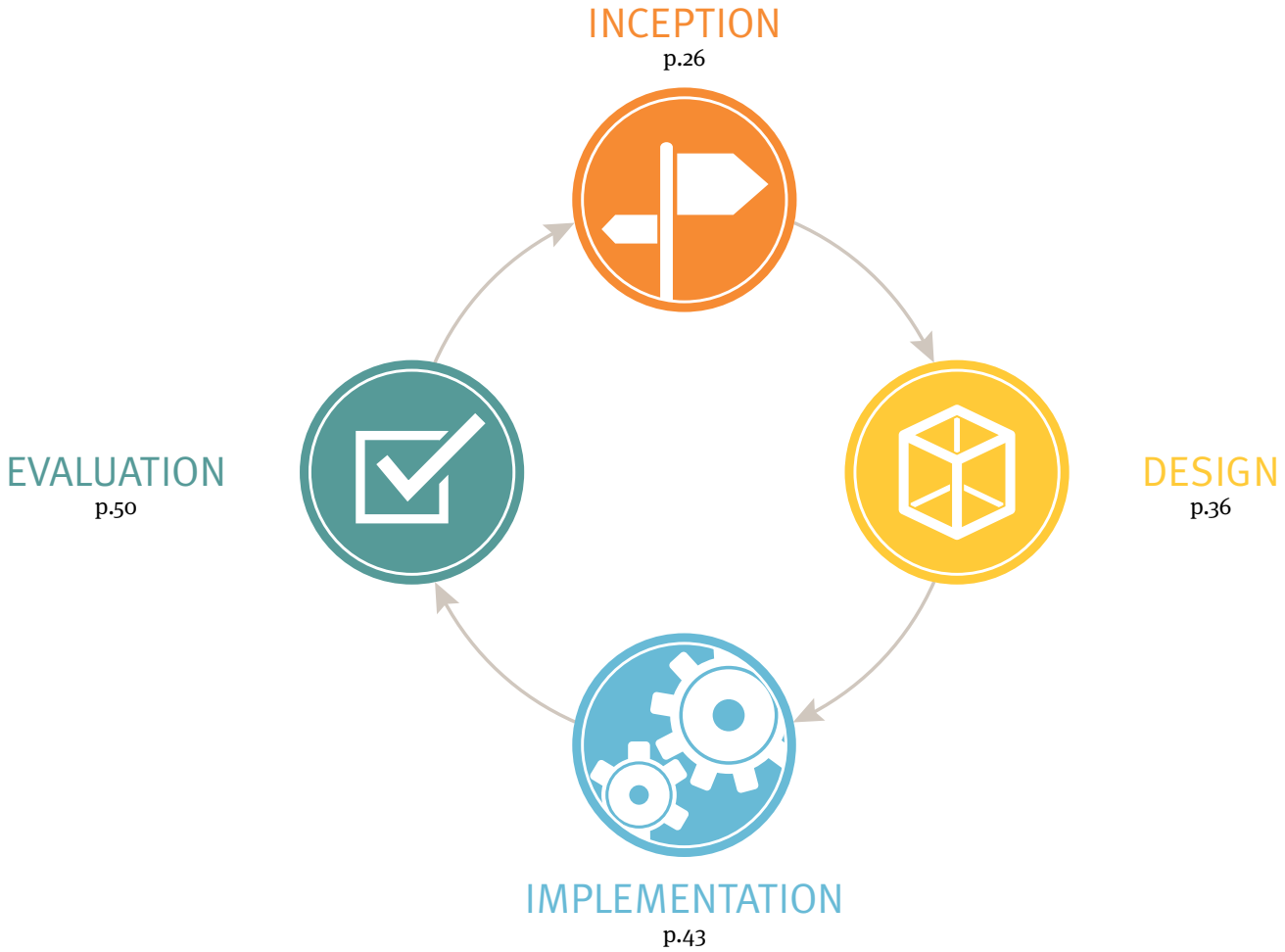
Main areas of concern for my initiative relating to impacts of natural hazards, climate change and environmental change:

Main areas of opportunity for my initiative in addressing impacts of natural hazards, climate change and environmental change:

Guidance Sheet 3 – Action

There are four versions of Guidance Sheet 3, one tailored for each stage of the project management cycle. The actions they suggest will help to more effectively integrate DEC and minimise risk in your investment.

Start by navigating to the phase your investment is currently in: Inception, Design, Implementation, or Evaluation.

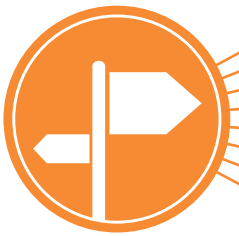


Inception phase

This Guidance Sheet presents a menu of 8 suggested actions to integrate DEC in the Inception phase of your investment. These suggested actions will help ensure that DEC integration is addressed in your Investment Concept Note. These actions will also help identify issues for the design team's ToR.

You do not necessarily have to implement actions in the order in which they are presented, and you do not necessarily have to implement all the actions suggested. The actions chosen and number of actions required will depend on the context of your investment. Use your judgement to select which actions to pursue to integrate DEC in your investment.

DEC integration actions in the INCEPTION phase



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Contact your DEC Focal Point

Less than 4 hours work

Talk to a DEC Focal Point or a technical specialist at Post, in the region, or Canberra.

Focal Points are charged with helping you with all facets of DEC integration and therefore contacting them is a necessary first step.

WHY

DEC Focal Points are trained to help you assess and integrate DEC issues.

They can point to existing tools and advice to help you address DEC issues.

They can help you get up to speed on local laws, regulations and policies regarding DEC.

HOW

A list of DEC Focal Points can be requested from the Environment and Climate team in Canberra.

Refer to key policies and strategies

About half a day of work

Review relevant DFAT policies and strategies, Australian legislation, and national government policies to see how they address the DEC issues you have identified in Guidance Sheet 2 (consider soliciting help from a DEC Focal Point to complete this action).

WHY

Referring to policy and guidance documents will help you to articulate the need to address and integrate DEC into your project. This can help with respect to making an effective argument for securing resources and buy-in.

The documents will also help identify policy hooks and entry points for DEC integration.

They will help ensure that DEC integration activities align with national priorities. For example, EPBC Act 1999 has supported DEC integration in the Philippines (see page 31 for more).

HOW

Relevant organisational policies and strategies are available at Post, at the region and in Canberra.

Most important policies are available on the intranet.

Relevant national government sector policies and legislation for your initiative should always be reviewed (e.g. education policies should be reviewed for school building programmes).

Many countries now have policies or guidance for DRR, environmental management, and climate change, e.g. UNFCCC National Adaptation Plan of Action (NAPAs), National Communications to the UNFCCC and Multilateral Environment Agreements (MEAs) that can be found online using search engines and keyword searches.

Section 4 Further Information has a list of useful organisations with knowledge bases on policies of different countries.

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Review existing knowledge

About half to one day of work

Find out what is known about DEC issues in the locality and sector by perusing existing knowledge in DFAT/Australian aid documents, reports from other donors, INGOs and locally-held knowledge.

Also, review biophysical, hazard, and climate trends and scenarios for the project area.

WHY

Other donors and organisations have undertaken work on mainstreaming DEC into their programmes. You may benefit from their experiences, particularly if working in the same sectors and/or geographic areas.

Reports from other donors can help with:

a) Identifying specific experts/consultants.

b) Providing details on relevant national government policies/regulations.

c) Providing details on relevant national government policies/regulations.

Incorporating these perspectives can improve the longevity and effectiveness of initiatives.

Key documents developed by donors in Vanuatu

Donors in Vanuatu have produced a number of helpful documents. For example, GIZ guides on integration in the sectors of agriculture, forestry, animal husbandry, or documents developed as part of the World Bank Mainstreaming Disaster Risk Reduction project and Increasing Resilience to Climate Change and Natural Hazards project.

HOW

The Country Situation Analysis usually carries information on disasters and the environment, and regional and sectoral strategies and frameworks may have further information.

Counterparts in other donor organisations might have relevant experience or knowledge to share, as might INGOs and national civil society organisations and researchers.

Use an online keyword search with words such as mainstreaming, climate change, disasters, environment, integration, climate smart. Add the name of the project's region to get more specific results.

NGOs and civil society organisations might have access to locally-held knowledge of DEC issues that can inform your work.

Your DEC Focal Point can help identify sources summarising trends in biophysical data, such as IPCC reports, hazard maps, or hydrological reports.

Section 4 Further Information has a list of useful organisations holding knowledge and data bases relevant to DEC issues in developing countries.

INCEPTION ACTION

Engage thematic specialists in peer review discussions

Less than 4 hours work

Engage thematic specialists in DEC issues when discussing the project parameters.

WHY

DRR, Climate change and environmental specialists from thematic teams in Canberra can help by: identifying entry points and objectives for DEC integration; commenting on and strengthening DEC narratives; and linking the initiative with relevant expertise and resources for integration.

HOW

Ensure that colleagues from thematic teams in Canberra with relevant expertise in DEC issues are invited to attend framing discussions for the initiative.

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Anticipate quality assurance and safeguards

Less than 4 hours work

Based on information already collected, consider screening questions in AidWorks. Highlight areas where the design team may need to ensure the investment adheres to the policies and laws of Australia and the partner government on the environment, disaster management and climate change.

WHY

Questions in AidWorks are usually answered at later stages of project development, but early consideration can help identify opportunities for DEC integration while there is still time to address them.

Initiatives funded with Australian aid are required to comply with the EPBC Act (1999) and national government environmental regulations.

The guiding questions in AidWorks may suggest additional areas of DEC integration you have not yet considered.

HOW

Consider the strategic planning environment screening questions in AidWorks with reference to your initiative. While you may not be in a position to answer all these questions at this point, taking them into account at this early stage will help ensure that your initiative is formulated in a way that is in line with this compliance mechanism.

Referring to AidWorks at this stage will help ensure that you meet all compliance obligations vis–à–vis your initiative.

Environmental regulations in the Philippines

Central to Australian aid's assistance is on-going compliance with the Philippines Government's environmental management systems. All infrastructure construction funded by the Australian government must comply with the EPBC Act 1999, and be assessed for any negative environmental impact. The Government of the Philippines environment legislation must be complied with and addressed: e.g. the Provincial Road Management Facility commissioned a team of consultants to undertake an initial environmental assessment and draft environmental management systems for the Facility and an environmental management plan for each province.

Make a case for DEC integration

Less than 4 hours work

WHY

This step helps you check that you have a clear understanding of what you are trying to achieve – if you can't explain why DEC issues are important to your initiative, you may need to rethink. The case will help you build support for DEC integration internally with partner organisations.

HOW

Refer to the results of the exercises undertaken in the previous Guidance Sheets and include as many of the following components as possible in the case for DEC integration:

- The benefits that will accrue to the initiative from DEC integration (e.g. longevity, effectiveness, savings).
- Requirements for DEC integration (e.g. climate proofing roads, using earthquake resistant materials in school construction).
- Value for money arguments (e.g. schools will be built from light-weight, locally-sourced material that will be comparatively cheaper and reduce risk of injury during earthquakes).
- Include robust statistics, risk assessment and other convincing arguments to the extent possible.

Once this is done, summarise the case as a 30-second 'elevator pitch'. A succinct description of the actions you propose to integrate DEC into your initiative. State also their importance in attracting support.

Prepare an argument for how/why the integration of DEC will improve initiative and investment concept. The case should state what you intend to achieve from DEC integration, and why it adds value to the investment concept.

Example of a pitch for DEC integration

The Australian aid Rural Roads Project, in collaboration with the Public Works Department in Indonesia, will add 86km of new road. Parts of this route are vulnerable to coastal flooding, while other sections cross mountain areas that suffer landslides in heavy rains. The design team should identify options for reducing the vulnerability of this infrastructure investment to flood and landslide disasters and ensure that environmental impact and risk are minimised.

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Assess requirements for expertise and technical assistance

Less than 4 hours work

Consider what kind of expertise will be needed in the design team to address the DEC issues identified in the project, and who might provide that expertise.

WHY

DEC integration usually requires technical and financial resources. Plan for this at the Inception stage.

HOW

Consult with DEC Focal Points, thematic experts, and/or colleagues in other donor organisations to identify the scale and type of resources needed.

Decide whether these resources could and should be sourced internally, contracted by DFAT, or sourced by recipients.

The results of Guidance Sheet 1 and Guidance Sheet 2 will assist you in determining the level and nature of expertise needed.

Check feasibility

Less than 4 hours work

WHY

It is important to be realistic about the level and nature of DEC integration, and to be reasonably certain about the relative costs and benefits of the proposed approach.

HOW

So far as possible, anticipate the costs and benefits of DEC integration, including those that are non-monetary (e.g., political).

Consult with colleagues in Post and Canberra on their judgements, and with development partners where appropriate.

Consider presenting the case for DEC integration as a formal proposal to development partners to gauge their interest and support.

This and the outputs from the other actions in this phase need to feed into the design of the Investment Concept Note. They may also inform the design team's ToR.

If you conclude that DEC integration is important to the investment but not feasible, then consider options such as co-funding relationships or partnering with organisations who can focus on the initiative's DEC requirements.

Check that the DEC measures you are planning contribute to development outcomes.

So far as possible at this stage, check whether the DEC integration measures are planned at an appropriate scale, whether there are enough resources, and whether the intervention complies with existing organisational and partner country rules and regulations.

Summary Sheet

Action	Details – what exactly needs to be done	Who will do it	When	Tick when complete
E.g. Contact your DEC Focal Point	*E.g. Alice to request a meeting with Babacar and ask about existing DEC resources, experiences of integration with similar initiatives elsewhere*	*Alice*	*Week of April 3rd*	✓
Contact your DEC Focal Point				
Refer to key policies and strategies				
Review existing knowledge				
Engage thematic specialists in peer review discussions				
Anticipate quality assurance and safeguards				
Make a case for DEC integration				
Assess requirements for expertise and technical assistance				
Check feasibility				

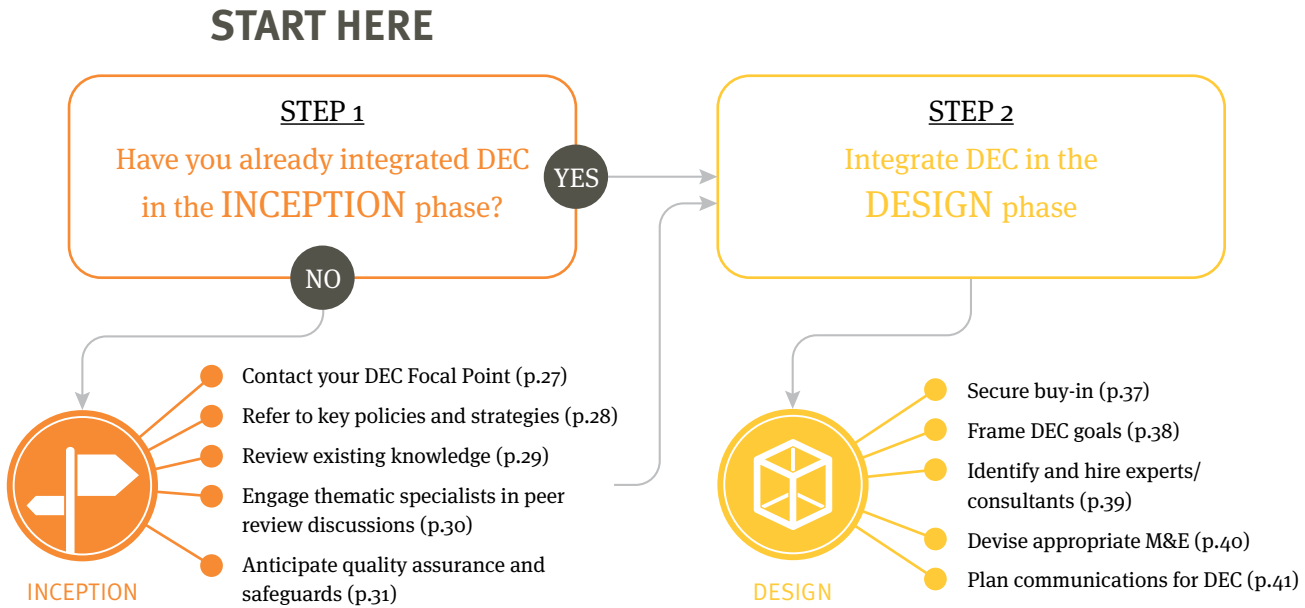
Design phase

This Guidance Sheet presents a menu of 5 options for actions to integrate DEC in the Design phase of your investment. These suggested actions will help ensure that DEC integration is addressed in the Design Document.

You do not necessarily have to implement actions in the order in which they are presented, and you do not necessarily have to implement all the actions suggested. Use your judgement to select which actions you will pursue to integrate DEC in your investment.

If you did not consider DEC integration in the Inception phase of your investment, and you are starting DEC integration in the Design phase, you may also want to look at actions suggested for the Inception phase. If you are starting the process of integration in the Design phase, your options may be constrained by factors already determined such as agreed budgets or institutional arrangements. This should be taken in to consideration, and in particular you should consider the actions:

- Contact your DEC Focal Point.
- Refer to key policies and strategies.
- Review existing knowledge.
- Engage thematic specialists in peer review.
- Anticipate quality assurance and safeguards.



Secure buy-in

More than one day of work, or hiring external support

WHY

An initiative is never executed by just one party or organisation. DEC integration will not be successful or sustainable unless partner organisations are in agreement with the objectives and methods of integration.

Engaging with partners on DEC integration at the design phase can also bolster the initiative and help protect against any unforeseen threats.

HOW

Discussions on DEC could take place by:-

- Integrating this as an agenda item in any workshops, meetings, conferences etc.
- Holding separate inclusive meetings on DEC integration.
- Tagging on sessions to discuss integration to any meetings taking place.
- Extending existing networks and partnerships to include greater number of stakeholders.

Discussions should focus on the following points: -

- Regulatory environment.
- Review the framing of DEC objectives.
- Corroborate knowledge on disaster risk reduction, environment and climate change adaptation and mitigation.
- Discuss preliminary ideas for integration actions.
- Gauge partner capacity to work with the proposed methods/form of integration.
- Collectively try to identify the potential threats or challenges to the proposed DEC integration.

Ensuring that all partners (e.g. technical assistance partners, government departments, community organisations and beneficiaries) are actively engaged and in agreement with the objectives and methods of the initiative is an important part of the Design phase of any initiative. For successful DEC integration it is critical that partners are included in DEC integration discussions and decision-making.

Use your professional judgement regarding the complexity of the partnership and funding relationship in terms of which DEC goals are realistic and achievable to pursue with your development partners.

Ability to obtain buy-in can be greatly influenced by the costs of integration. The implications of DEC integration for cost-sharing arrangements with partners should be assessed as soon as possible, including the implications of integration for any future costs, such as operation and maintenance.

Frame DEC goals

About half a day of work

WHY

Starting out with a clear sense of the change you want to achieve after integrating DEC will ensure that the process is efficient and effective.

This will also help you justify the reasons for DEC integration to your partners.

HOW

Any goal should:-

- Provide detail on exactly what is to be done.
- Be able to be tracked and measured.
- Be feasible and attainable in the given amount of time.
- Not detract from the overall goal of the main intervention.

DEC goals can be about:-

- Managing risk to initiatives from disasters and climate impacts.
- Ensuring that initiatives help deal with the impacts of disasters, environmental degradation and climate change.
- Making sure that initiatives do not exacerbate disaster risk, damage the environment and/or contribute to climate change.

If hiring a design team, their Terms of Reference should reflect these DEC goals.

Section 4 Further Information has a list of DEC integration tools that can be helpful in identifying and setting DEC objectives and goals. These include tools for assessing impact, vulnerability and risk, and planning projects.

Be clear about the reasons for integrating DEC in your initiative. The first two Guidance Sheets should have helped with this but if not, at this stage you should pin-down the underlying reason for DEC integration. For example:

- The roads being built as part of this initiative may otherwise be damaged by natural hazards.
- This education initiative could help prepare children for earthquakes.
- The diseases that this health intervention aims at tackling are going to change/shift as a result of climate change.
- The planning process for this initiative will actively consider DEC issues.

This should link in with the DEC narrative that you may have prepared (part of the actions for integration in the Inception phase).

Identify and hire experts/consultants

More than one day of work, or hiring external support

Identify experts and consultants who can help address DEC issues in investment design.

Most aspects of DEC integration will require contributions from experts familiar with integration/mainstreaming in specific sectors. These consultants might be involved in:

- Designing particular actions/intervention for integration.
- Estimating the cost of integration.
- Undertaking risk assessments.
- Designing mechanisms to embed DEC in policy frameworks.

WHY

Effectively factoring DEC integration into design requires specialist knowledge.

HOW

In-house expertise on DEC issues can be found in thematic and sectoral teams in Canberra. Your DEC Focal Point can help you identify them. External consultants can be found by:

- Accessing the Aid Advisory Services Standing Offer; this has a number of categories including environment, climate etc.
- Contacting counterparts in other prominent aid agencies in country.
- Reaching out to a DEC Focal Point at Post, at another Post in the region or in Canberra.
- Contacting the designated point person in sectoral/thematic teams.

Also, remember that sometimes it could be more useful to first review the capacity of partner organisations working on delivering particular initiatives and then if need be, help them to hire these experts rather than contracting them directly.

Key to hiring an appropriate consultant is preparing the right ToRs. These ToRs might need to include your conclusions from actions in the Inception phase DEC integration Guidance Sheet 3. Consult the list of DEC integration tools provided in Section 4 Further Information to see if the experts should use one or more of those tools as part of their tasks. If so, include this in their ToRs.

Bear in mind that hiring consultants may be particularly important if your initiative has been closed as 'high priority' in Guidance Sheet 1.

Hiring a Climate Resilient Road Standards Team for a Roads Building Project in Vanuatu

Vanuatu is Number 1 in the World Risk Index and therefore there was a clear realisation that Australian aid-funded roads in the country would need to adequately address DEC issues. A Climate Resilient Road Standards Team was hired to:

- Identify regulatory avenues for integrating DEC in all future road construction.
- Formulate a climate risk screening methodology for road transport infrastructure.
- Map priority risk areas of the national road infrastructure.
- Identify target sites and undertake detailed climate risk and adaptation assessments.
- Design adaptation measures for planned road works (pavements, drainage, coastal protection).
- Develop a road standards guideline that incorporates design guidelines for addressing DEC.

Devise appropriate M&E

About one day of work

For DEC integration to be successful, appropriate monitoring and evaluation (M&E) procedures should be developed and implemented. This means including DEC issues in:

- Investment goal.
- Investment purpose.
- Strategic objectives.
- Indicators (activity, output, outcome, KPIs).

DEC indicators selected will need to be reported through annual performance and quality procedures and processes.

WHY

Effective M&E is crucial for learning from DEC experiences.

Ensuring appropriate M&E helps articulate the case for DEC integration to all stakeholders.

M&E is critical for justifying any additional expenditure.

Examples from SIDA on Environmental and Climate Change Indicators in Health Programmes:

- Proportion of population using improved facilities for water/sanitation.
- Deaths among children under five years of age due to malaria.

Examples from SIDA on Environmental and Climate Change Indicators in Education Programmes:

- Proportion of teachers trained in environmental/climate change/disaster risk reduction education.
- Education policies include environmental/climate change/disaster risk reduction issues in the curriculum.

HOW

Adding DEC issues to any M&E system needs careful thought. DEC needs to be aligned with the project goals and objectives.

If a project goal is 'improved access to basic education for Out of School Boys and Girls thereby contributing to the overall improvement of basic education performance', then adding DEC to this could lead to 'improved access to basic education for Out of School Boys and Girls under a range of future climate scenarios, thereby contributing to the overall improvement of basic education performance'.
This would influence the investment's purpose and strategic objectives.

In addition to indicators monitoring performance with DEC at the project level, a set of corporate DEC indicators has already been developed, and is available on the DEC thematic page of the intranet.

If hiring a design team, add the development of an M&E framework to their ToRs.

Plan communications for DEC

About one day of work

DEC integration should be factored into existing communication plans for investments where appropriate, or small, separate communications activities could be planned to communicate findings from DEC integration processes.

WHY

Planning for effectively communicating the benefits of DEC integration early-on can go a long way to helping its adoption across institutions and making the practice business as usual.

Communicating the challenges of DEC integration can help other people avoid the same mistakes.

DEC integration sometimes requires additional resources, so communicating progress is a key part of organisational accountability.

HOW

Review existing communication plans for investments and gauge the degree to which findings from DEC integration processes can be included.

Any such plan should aim to:-

- Highlight 'good news stories' of DEC integration internally and externally, describing benefits, discussing the problems and sharing lessons learned.
- Develop communications products aimed at internal and external stakeholders with specific interests in DEC.
- Develop communications products aimed at sector specialists without experience in integrating DEC issues.

If hiring a design team, add this task to their ToRs.

Summary Sheet

Action	Details – what exactly needs to be done	Who will do it	When	Tick when complete
E.g. Secure buy-in	*E.g.* • *Invite expert on disaster risk to speak at next project stakeholder meeting* • *Celia to raise DEC issues in next discussions with minister*	*Alice and Babacar* *Celia*	*Week of June 1st* *Next ministerial meeting*	✓
Secure buy-in				
Frame DEC goals				
Identify and hire experts/ consultants				
Devise appropriate M&E				
Plan communications for DEC				

Implementation phase

This Guidance Sheet presents a menu of 5 options for actions to integrate DEC in the Implementation phase of your investment. The suggested actions will help ensure that DEC integration is mainstreamed in the good practise of aid investment management.

You do not necessarily have to implement actions in the order in which they are presented, and you do not necessarily have to implement all the actions suggested. Use your judgement to select which actions you will pursue to integrate DEC in your investment.

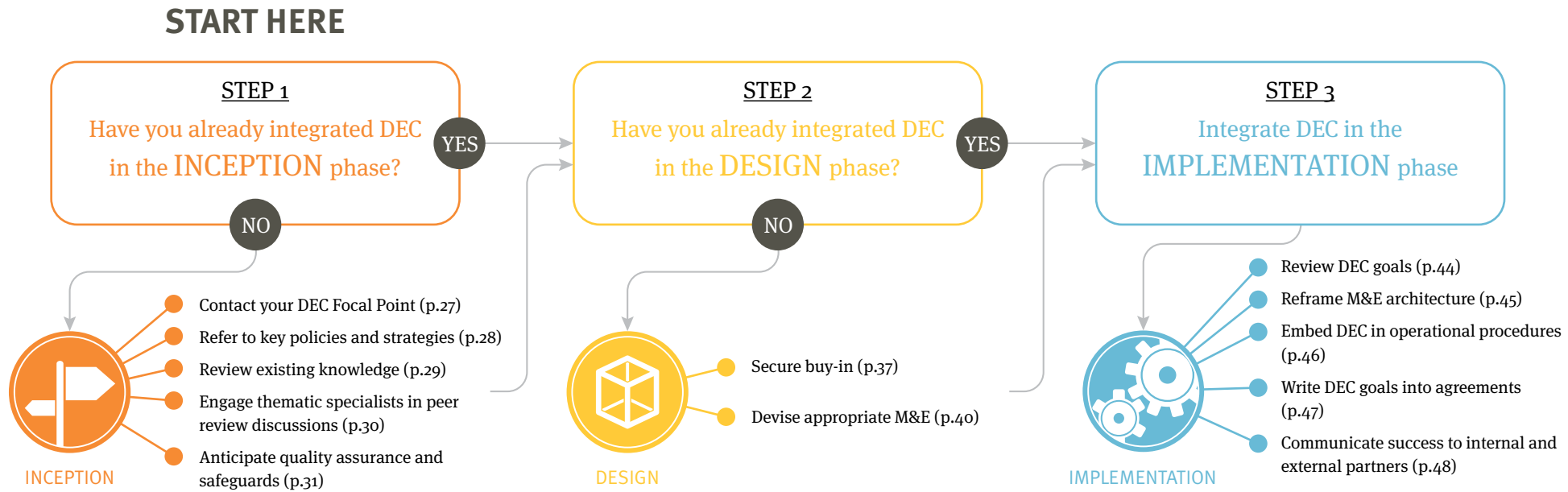
If you did not consider DEC integration in the Inception or Design phases of your investment, and are starting DEC integration in the Implementation phase, you may also want to look at actions suggested for the Inception and Design phase. If you are starting the process of integration in the Implementation phase, your options are likely to be constrained by existing aspects of the design, budget, and partner agreements surrounding your initiative. This will need to be taken into consideration by integrating certain actions from the Inception and Design phases.

From the Inception phase you should consider the following actions:

- Contact your DEC Focal Point.
- Refer to key policies and strategies.
- Review existing knowledge.
- Engage thematic specialists in peer review.
- Anticipate quality assurance and safeguards.

From the Design phase you should consider the actions:

- Secure buy-in.
- Devise appropriate M&E.



Review DEC goals

About half a day of work

WHY

DEC goals identified in previous stages should be reviewed at the start of, and throughout, implementation. The key questions are whether DEC goals align with the investment programme logic, and whether they align with changing contexts.

Any changes in context, information available or project assumptions should be monitored throughout implementation, and goals reviewed and adapted as appropriate.

A lot can change between the Design phase when the DEC goals are set and the Implementation phase. For instance, the process of seeking commitment from partners in the previous stage can lead to a need for changes in objectives.

Similarly, the context of a project may shift during implementation as new information arrives or a disaster event happens.

It is therefore important that the broad goals of DEC integration are reviewed before project implementation begins, and in light of any changes during implementation.

Oxfam and CIPRES Organic Cashew Project, Nicaragua

The EU-funded Oxfam and Centre for Promotion, Research and Rural and Social Development (CIPRES) project in Nicaragua began in 2004 began with a small DRR component. However, during the first year of implementation, the project was affected by a number of environmental hazards and Oxfam, CIPRES and the beneficiaries realised that a broader range of interventions were needed to help meet the objectives of the project.

HOW

Consider whether the objectives are still valid internally, and discuss with partners and all other stakeholders. This process should be ongoing throughout the Implementation stage.

All discussions to review DEC goals should gauge whether the goals are still clear, feasible, and relevant. Any changes and revisions made should be adequately reflected in the M&E architecture (see next action on page 45).

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Reframe M&E architecture

About one day of work

When DEC goals are established or realigned, they need to be incorporated into the M&E framework, including the investment logframe.

WHY

Incorporating DEC goals into the investment programme logic and M&E framework ensures that DEC integration is operationalised and mainstreamed into standard procedures and ways of working.

HOW

Seek specialist support from M&E experts, DEC Focal Points and thematic specialists where appropriate. This may involve contracting external specialists with expertise in M&E and DEC issues.

Ensure that DEC goals and measures to operationalise them are reflected in the different levels of the logical hierarchy of the project.

Ensure that indicators adequately reflect the outputs and outcomes resulting from measures to operationalise DEC integration.

Look at the DAC[1] criteria and associated indicators, as well as the corporate DEC indicators to see which might be suitable for your investment.

1 OECD's Development Assistance Committee (DAC) argues that any M&E framework should follow the principles of relevance, effectiveness, efficiency, impact and sustainability.

Embed DEC in operational procedures

About one day of work

Ensure that DEC issues are incorporated into routine and standard practices of investment management.

WHY

Once DEC goals and measures have been identified, they should be mainstreamed into standard practice rather than be 'add-ons'.

Integration in standard management practices ensures operationalisation of DEC.

HOW

Ensure that reporting and other monitoring procedures reflect DEC measures.

Ensure that DEC issues, indicators and markers are linked to and captured by performance and quality procedures and processes.

Section 4 Further Information contains a list of tools supporting DEC integration, including tools for vulnerability assessment, project planning, and policy development. Consider whether any of these tools could be adopted in the regular operations of your initiative to guide DEC integration in practice.

Write DEC goals into agreements

About one day of work

Once DEC goals have been revisited and updated, and measures for operationalisation identified, these should be translated and integrated into all relevant agreements.

WHY

A key mechanism for operationalising DEC integration is to embed responsibilities, objectives and accountability in agreements.

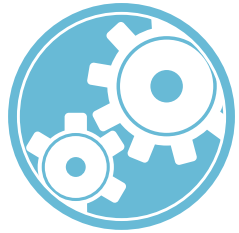
HOW

Integrate DEC into these aspects of agreements:

- Activities/outputs.
- Key deliverables.
- Required expertise.
- Responsibilities.
- Governance/management.
- Reporting.
- Work plan and timeline.
- Milestones/budget.
- Financials.

Communicate success to internal and external partners

About one day of work



Communicate positive results with DEC integration from this investment to leverage broader policy changes with development partners.

WHY

DEC integration might be a small component of the investment, but it might be an innovative approach in your sectoral or country context. Your experiences could be significant in promoting new approaches.

HOW

Draw on the results of evaluations and reports to identify where the investment has been innovative and successful.

Relate innovation and success to the policy and knowledge needs of different stakeholders:

- Partner governments considering replication of similar projects.
- Internal stakeholders from different sectoral and thematic groups.
- Other donors and agents.
- Refer to the investment communications plan.
- Commission appropriate products such as brochures.
- Hold meetings with stakeholders to present results in person.
- Support awareness raising activities.

Section 4 Further Information contains a list of useful websites for communicating on DEC, including knowledge portals such as the DEC e-Learning Portal, we-ADAPT, and the World Bank's Climate Change Knowledge Portal.

Summary Sheet

Action	Details – what exactly needs to be done	Who will do it	When	Tick when complete
E.g. Review DEC goals	*Programme manager to review DEC goals, objectives and results in meetings with implementing partners every 6 months*	*Alice*	*Every 6 months*	✓
Review DEC goals				
Reframe M&E architecture				
Embed DEC in operational procedures				
Write DEC goals into agreements				
Communicate success to internal and external partners				

Evaluation phase

This guidance sheet presents a menu of 6 actions for integrating DEC in the Evaluation phase of your investment. Following the suggested actions will help ensure that DEC is integrated in your investment's independent evaluation. You do not necessarily have to implement actions in the order in which they are presented, and you do not necessarily have to implement all the actions suggested. Use your judgement to select which actions you will pursue to integrate DEC in your investment.

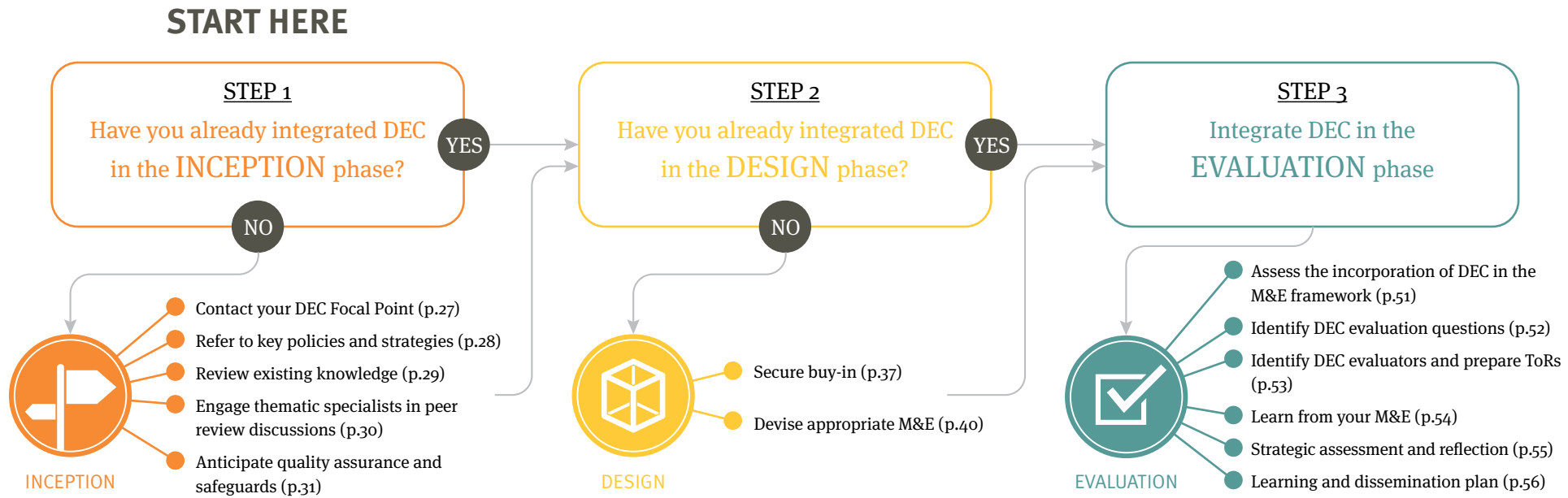
If you did not consider DEC integration in the Inception, Design or Implementation phases of your investment, and are starting DEC integration in the Evaluation phase, you may also want to look at actions suggested for earlier phases. If you are starting the process of integration in the Evaluation phase, your options are likely to be constrained by existing aspects of the design, budget, and partner agreements surrounding your initiative. This will need to be taken into consideration by integrating actions from previous phases.

From the Inception phase you should consider the following actions:

- Contact your DEC Focal Point.
- Refer to key policies and strategies.
- Review existing knowledge.
- Engage thematic specialists in peer review.
- Anticipate quality assurance and safeguards.

From the Design phase you should consider the actions:

- Secure buy-in.
- Devise appropriate M&E.



1
2
3

Assess the incorporation of DEC in the M&E framework

About half a day of work

DEC may already have been incorporated in M&E frameworks during the Design and Implementation phases. If so, this should now be reviewed to assess whether the alignment of DEC in the M&E framework remains valid. If not, then you might wish to omit this step and move straight to the next step of determining your evaluation questions.

WHY

The shape and form that DEC integration will take can vary substantially over the course of a project, so it is important to ensure that plans for an independent evaluation adequately reflect these changes.

HOW

This double-checking would entail a careful analysis of the following:

- Have the objectives of DEC integration changed since the time DEC was integrated into the M&E plans?
- Have there been any major shifts in the manner of DEC integration in the initiative?
- Have discussions with partners and other stakeholders who are helping execute this initiative yielded any new facets that need to be measured/ evaluated?
- Based on this analysis, what are the key issues that the evaluation should consider?

Identify DEC evaluation questions

About one day of work

Ensure that DEC issues will be captured by the independent evaluation in ways that are appropriate, reflect the importance of DEC within the investment, and best encapsulate the results and lessons learned.

WHY

This is an important step in defining the purpose of the evaluation, and the Terms of Reference for the evaluation team.

HOW

Decide whether DEC is a significant enough issue in the investment to be included in the key questions to be addressed by the evaluation.

In certain situations you may also want to conduct separate evaluation exercises on DEC integration itself.

Decide whether DEC should be addressed as a standalone question, or should be integrated across other evaluation questions. E.g., a standalone question on DEC might ask, “how has this investment contributed to environmental sustainability?” while integrated evaluation questions might ask, “how has this investment contributed to social, economic, and environmental sustainability, including to the risks of disasters and climate change?”

When the questions have been identified, these should be included in the evaluation design and ToR for the evaluation team.

Identify DEC evaluators and prepare ToRs

Less than 4 hours work

Evaluating DEC integration will usually require the contribution of experts who are familiar with integration/ mainstreaming in the appropriate sectors. Their main role is to assess whether projects are in compliance, performing appropriately and provide learning to DFAT.

Their ToRs should provide specific learning objectives for DEC integration.

WHY

DFAT staff may not have all the necessary expertise to undertake integration and could therefore need individuals and companies with specialist skills to help them undertake necessary actions for DEC integration.

HOW

Evaluators can be found by:

- Accessing the existing experts database.
- Contacting counterparts in other prominent aid organisations in country.
- Reaching out to a DEC Focal Point at Post, at another Post in the region or in Canberra.
- Contacting the designated point person in the disaster and climate change thematic team.

Preparing the right ToRs is key to hiring an appropriate evaluator.

EVALUATION ACTION

Learn from your M&E

About half to one day of work

Assess how DEC evaluation findings can improve DEC integration in the investment and inform future investments and programmes.

WHY

Evaluations should provide evidence to improve current and future investments.

Cumulatively and across investments, this data can provide an evolving source of baseline information from which to identify trends in DEC integration.

This information can also help thematic areas to build up a departmentwide understanding of DEC integration.

HOW

Findings from the project evaluation should be assessed in relation to:

- Improvements and reorientations that could be made in the current investment.
- Other relevant investments currently in the Inception or Design phases.
- Future evolution of sectoral strategies and country programmes.

In each case management responses should be identified, documented, and incorporated in the learning and dissemination plan.

Strategic assessment and reflection

About one day of work

This step entails taking findings from DEC evaluations and assessing how they can inform and influence key policy processes.

WHY

This point is key to maximising the investment of time and resources in evaluating DEC integration.

It is also essential to the systematic and systemic integration of DEC.

HOW

The first and important step is to list relevant internal and external forums/policies where findings from the evaluations of DEC integration can be found. These could include:

- Internal: country and regional strategies; Partnership for Development; Sectoral Delivery Strategy; Annual Programme Performance Reports.
- External: any government policies outlining their partnership with donors, development policies around key sectors, macro-level development policies (5-year plans).

Following this step the list should be prioritised using these criteria:

- Policies that are set to be revised in the near future.
- Policies that are consolidated through consultative processes (so staff have an opportunity to feed in).
- Policies that are especially relevant to the DEC integration initiative in question.

Engage individuals from thematic areas in this process.

Learning and dissemination plan

More than one day of work, or hiring external support

WHY

Communications activities are key to influencing policy change to ensure the systemic and systematic integration of DEC.

As DEC integration can sometimes lead to additional expenditure, communications activities help account for and explain the reasons for elevated costs and benefits of the investment.

HOW

Communications products will be divided into those meant for internal and external audiences:

- For internal audiences communications activities/ products can entail newsletters etc.
- For external audiences you should supply ideas for stories and blogs on DEC integration to the central communications team.

You should also contact thematic teams in Canberra to see what communications opportunities they can identify.

DEC objectives should have been built into communications activities.

Communications products focussing on the findings from DEC integration should be developed and disseminated.

Summaries of Stories on DEC Integration from Vanuatu

These are the types of narratives that any communications programme should attempt to capture and expand on:

1.
Working in collaboration with the Ministry of Education and adopting architectural designs from the Solomon Islands, Australian aid supported 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.

2.
The Public Works Department of Vanuatu with support from Australian aid 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 involved 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). This will ensure that the local population will have free access to markets and services under a range of climate and disaster scenarios.

SUMMARY SHEET

Action	Details – what exactly needs to be done	Who will do it	When	Tick when complete
E.g. Assess DEC incorporation in the M&E framework	• *Consult with M&E experts in Post and Canberra and with implementing partner to ensure M&E provisions for DEC remain relevant* • *Identify DEC issues for evaluation to focus on*	*Alice and Babacar*	*Week of October 9th*	✓
Assess DEC incorporation in the M&E framework				
Identify DEC evaluation questions				
Identify DEC evaluators and prepare ToRs				
Learn from your M&E				
Strategic assessment and reflection				
Learning and dissemination plan				

SECTION 4

Further information

Tools and resources

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
Agriculture	FAO	2008	Rapid Agricultural Disaster Assessment Routine (RADAR)	RADAR is a very powerful support tool for decision-making during a disaster impact assessment. It is based on the idea that a disaster is the "product" of extreme factors and a vulnerable agricultural system. Full implementation of the assessment procedure in a Disaster Information Management System allows a rapid and accurate assessment of the impact of disastrous events on agriculture. Impact forecasting and updating using on-ground and satellite remote sensing data inputs are also used.	http://www.fao.org/docrep/011/i0183e/i0183e00.htm
Coastal zones	UNEP, GPA, SEI	2007	Making Mainstreaming Work	An Analytical Framework, Guidelines and Checklist for the Mainstreaming of Marine and Coastal Issues into National Planning and Budgetary Processes	http://www.gpa.depiweb.org/docman/doc_view/16-making-mainstreaming-work.html
Coastal zones	UNEP	2008	DRR A toolkit for tourism destinations: practical examples from coastal settlements in Asia	This toolkit for tourist destinations has been developed to disseminate the project experience and to allow its replication in other tourist destinations. It is designed for local municipalities and for the various actors involved in emergency planning and response in tourism destinations. The toolkit includes information relating to the various steps that need to be undertaken, from the preliminary assessment, to capacity building, disaster prevention and preparedness planning, to communicating and disseminating key information.	http://www.preventionweb.net/english/professional/publications/v.php?id=13875
Communities	CARE	2009	Climate Vulnerability and Capacity Analysis Handbook	The handbook provides a framework for undertaking analyses of vulnerability and adaptive capacity at the community level. It outlines the Climate Vulnerability and Capacity Analysis (CVCA) methodology, developed in order to facilitate the participation of community members in the analysis of the implications of climate change upon their lives and livelihoods. Scientific data and local knowledge is summarised in order to build greater understanding of climate risks and adaptive strategies and to stimulate discussion within communities and develop links with other communities and stakeholders. The role of 'enabling environments' is also examined, to establish the implications of regional and national issues upon bottom-up adaptation strategies. This tool seeks to provide a base for the detection of practical strategies to assist with community-led adaptation to climate change.	http://www.careclimatechange.org/files/adaptation/CARE_CVCAHandbook.pdf

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
Communities	SDC, IISD, SEI, IUCN	2012	CRiSTAL (Community-based Risk Screening Tool Adaptation and Livelihoods)	CRiSTAL is an assessment tool developed to assist community level project planners and managers in integrating climate risk reduction and DRR adaptation strategies into development projects. It aims to highlight the links that exist between risks associated with climate change, livelihoods and community level projects. It is comprised of four steps: 1. the climate context of the community is established in order to assess anticipated climate hazards, the impacts of these hazards, and the coping strategies available; 2. the livelihood context of the community is evaluated with the purpose of highlighting livelihood resources, the impact of climate hazards on these resources, and a prioritised list of livelihood resources for adaptive strategy; 3. project activities are assessed in terms of their impact on livelihood resources that are most affected by hazards and/or important for adaptive capacity; 4. in light of analysis undertaken using the tool, projects are altered in order to enhance adaptive capacity and diminish climate vulnerability. Training is recommended, but is not compulsory and 1-4 days are needed to complete the tool.	http://www.iisd.org/cristaltool/download.aspx
Communities	TearFund	2009	CEDRA (Climate change and Environmental Degradation Risk and Adaptation assessment)	CEDRA is a risk-based approach that combines community knowledge with scientific data in order to undertake participatory adaptation. It helps agencies working in developing countries to access and understand the science of climate change and environmental degradation and to compare this with local community experience of environmental change. It is intended to help development agencies engage with the science underpinning climate change and environmental degradation, prioritise which environmental hazards may pose a risk to their existing projects and project locations and inform the planning and revision of projects. An average of 22 working days are needed to complete CEDRA. However, the process should be undertaken alongside other aspects of development planning, so it is likely to take place over the course of 3 months.	http://www.preventionweb.net/files/11964_CEDRAClimatechangeandEnvironmentalD.pdf
Communities	CARE, IISD	2010	Community-Based Adaptation Toolkit	The CBA Toolkit offers a practical “how-to” guide for project teams in completing the project cycle for CBA projects. It includes step-by-step guidance and recommended tools for all stages of the project cycle, along with links to useful resources and checklists for key project documents. It also includes CBA Project Standards to help ensure high-quality analysis, design, implementation and information and knowledge management (including monitoring and evaluation) in your CBA project.	http://www.careclimatechange.org/files/toolkit/CARE_CBA_Toolkit.pdf

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
Communities	Christian Aid	2010	Integrating climate change adaptation into secure livelihoods	The toolkit 1 and 2 focuses on providing resources on planning for adaptation; an analysis of future climate change that can then be integrated into mainstream livelihoods work. This includes both: 1. A project-specific analysis of climate change and how this fits into the options available for livelihoods development (see Toolkit 1: Framework and approach); and 2. The development of a specific national-level climate change document, think-piece or strategy that may be developed as a Country Programme Strategy Paper or a resource for partner strategy development (see Toolkit 2: Developing a climate change analysis). It does not address issues such as adaptation of health and other services. The toolkits are primarily aimed at Country Programme and partner staff focusing on disaster risk reduction and livelihood adaptation to climate change.	http://www.adaptationlearning.net/sites/default/files/Adaptation%20toolkit%201.pdf http://www.adaptationlearning.net/sites/default/files/Adaptation%20toolkit%202.pdf
Education and Children	Plan Intern.t'l	2010	Child-Centred DRR Toolkit	To help countries and organisations and groups to work effectively with children to reduce risks and increase community resilience to disasters and the effects of climate change.	http://plan-international.org/files/global/publications/emergencies/DRR-toolkit-English.pdf
Education and Children	ADPC, ECHO, DEP, NDCC, UNDP		INEE Toolkit	A wide variety of practical, field-friendly tools and resources to guide educationalists, humanitarian workers and government officials working in the field of education in emergencies through to recovery. e.g. DRR Tool kit of 10 project papers relating to the integration of DRR into the education sector between 2007 - 2009. A search engine makes finding relevant resources simple.	http://toolkit.ineesite.org/toolkit/Toolkit.php?PostID=1124 http://toolkit.ineesite.org/toolkit/search.php
Education and Children	INEE	2008	Mainstreaming DRR in the education sector in the Philippines	A guide to the integration of DRR into the secondary school curriculum and to the promotion of resilient construction of new schools using research on the past impact of disasters on the education sector. • Integrating DRR in the School Curriculum: Project Experience • Study on Impact of Disasters on the Education Sector • School Construction: Current practices and Improvements needed	http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1124/Mainstreaming_DRR_Philippines.pdf
Education and Children	INEE	2008	Mainstreaming DRR in the education sector in Cambodia	To help undertake integration of DRR into the secondary school curriculum and promote resilient construction of new schools using research on the past impact of disasters on the education sector.	http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1124/Mainstreaming_DRR_Cambodia.pdf
Education and Children	INEE	2008	Mainstreaming DRR in the education sector in Laos	An evidence-based rationale to raise awareness on integrating DRR concerns into education policies, programmes and plans and to advocate for changing practices in school construction especially in incorporating disaster risk resilient features in new school construction.	http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1124/Mainstreaming_DRR_Philippines.pdf

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
Education and Children	INEE	2007	Mainstreaming DRR into the education sector	This Asian DM News issue provides a wide variety of good practices: integrating DRR into formal and informal school curriculum; safe school construction; school emergency planning and management; education & awareness raising on disaster; and tools for risk reduction.	http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1124/Mainstreaming_DRR_into_Education_Sector.pdf
Education and Children	INEE	2007	Integrating DRR into the school curriculum	In this document key approaches for mainstreaming DRR into the school curriculum are identified and steps are suggested for undertaking Priority Implementation Partnerships for this purpose. Long-term activities are recommended for institutionalisation.	http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1124/Integrating_DRR_in_School_Curriculum.pdf
Education and Children	UNESCO, IIEP	2011	Integrating conflict and disaster risk reduction into education sector planning	Guidance Notes aim to support educational planners and managers to mainstream conflict and disaster risk reduction (C/DRR) into existing or new education plans and other education planning processes.	http://www.iiep.unesco.org/fileadmin/user_upload/News_And_Events/pdf/2011/IIEP_Guidancesnotes_EiE_en.pdf
Energy	SEI	2012	LEAP (Long range energy alternatives planning system)	LEAP is a software tool used to analyse energy policies and to assess climate change mitigation. It can track energy consumption, production and resource extraction in all sectors of an economy, and can be used to account for both the energy sector and non-energy sector greenhouse gas (GHG) emission sources and sinks. LEAP can also be used to analyse emissions of local and regional air pollutants, making it well-suited to studies of the climate co-benefits of local air pollution reduction. The tool can be used at many different scales, ranging from cities and states to national, regional and global applications and is for use by government agencies, academics, NGOs, consultants and energy utilities. Users may require training and the tools require 4 to 5 days input.	http://www.energycommunity.org/default.asp?action=47
Energy	ESMAP	2013	HEAT (Hands on Energy Adaptation Toolkit)	HEAT identifies key direct risks to energy supply and demand and options for adaptation to establish where to focus subsequent in-depth analyses.	http://www.esmap.org/node/312
Energy	IUCN	2008	Implementing Sustainable Bioenergy Production; A Compilation of Tools and Approaches	International Union for Conservation of Nature and Natural Resources compilation of example principles, frameworks and tools already in use in the conservation community which may be applied to bioenergy production to identify and reduce environmental as well as socio-economic risks and promote opportunities. The aim is to provide the range of stakeholders who are engaged in the bioenergy agenda (governments, businesses, communities, land owners, and individuals) the tools to achieve more sustainable outcomes in relation to ecosystems and livelihoods.	

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
Emergencies	OCHA	2013	Emergency Preparedness and Response Plan (EPREP): A guide to inter-agency humanitarian action in the Pacific	The EPREP defines the coordination mechanisms and the relevant government institutions for emergency preparedness and response to ensure the most effective and efficient means of coordination and information sharing during an emergency. It aims to prepare humanitarian stakeholders to provide more efficient and effective support to Pacific Island governments before, during and after an emergency response to minimise the humanitarian consequences of disasters.	http://www.phtpacific.org/sites/default/files/manual_guidance_handbook/100/files/Pacific_EPREP_2013_FINAL1.pdf
Emergencies	WHO	2010	Hospital emergency response checklist: An all-hazards tool for hospital administrators and emergency managers	This guide will assist both hospital administrators and emergency managers in responding effectively to the most likely disaster scenarios. This tool comprises current hospital-based emergency management principles and best practices and integrates priority action required for rapid, effective response to a critical event based on an all-hazards approach. The tool is structured according to nine key components, each with a list of priority action to support hospital managers and emergency planners.	http://www.euro.who.int/__data/assets/pdf_file/0020/148214/e95978.pdf
Emergencies	American Public Health Association	2006	Public health management of disasters: the pocket guide	A quick guide to public health interventions in the days immediately preceding and following emergencies. The guide discusses the roles and responsibilities of public health authorities, disaster plans and information systems in a developed world scenario.	http://www.apha.org/NR/rdonlyres/ECDFA2EC-49A0-4D7A-B257-1488E671DE5B/0/APHA_DisasterBook_2.pdf
Health	Disaster Information Management Research Centre	2014	The Resource Guide for Disaster Medicine and Public Health	This website is a gateway to freely available online resources related to disaster medicine and public health. Resources include expert guidelines, factsheets, websites, research reports, articles, and other tools aimed at the public health community.	http://disasterlit.nlm.nih.gov/
Health	WHO	2010	Guidance for health sector assessment to support the post disaster recovery process	This document provides guidance to national and international stakeholders involved in the health sector part of the Post Disaster Needs Assessments comprised of information and guidance sheets to formulate a national recovery framework.	http://www.who.int/hac/techguidance/tools/manuals/pdna_health_sector_17dec10.pdf
Infrastructure	ADB	2005	CCAIRR (Climate change adaptation through integrated risk assessment) - Climate Proofing: A Risk-based Approach to Adaptation	The studies are designed to assist Pacific Developing Member Countries (PDMCs) to enhance their adaptive capacity and resilience to climate change and variability, including extreme events. The Climate Change Adaptation through Integrated Risk Reduction (CCAIRR) framework and methodology have been used to demonstrate a risk-based approach to adaptation and the mainstreaming of adaptation through risk assessment, adaptation planning, and policy development, by climate proofing infrastructure, and through community and other development initiatives.	http://www.adb.org/publications/climate-proofing-risk-based-approach-adaptation http://www.adb.org/sites/default/files/pub/2005/climate-proofing.pdf
Infrastructure	USAID	2007	Climate change adaptation guidance manual	The Guidance Manual is aimed at USAID country missions to assist in the mainstreaming of climate change adaptation in all projects	http://pdf.usaid.gov/pdf_docs/PNADJ990.pdf

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
Policy/ Strategy	ADPC	2013	Integrating Disaster Risk Management into Climate Change Adapation	Disaster Risk Management Practitioner's Handbook Series. The Asian Disaster Preparedness Network have produced this guidebook to serve as a reference for integrating disaster risk management (DRM) into climate change adaptation (CCA), and to promote the adoption of a risk management approach to climate-sensitive decision-making. It guides the reader on how to contribute to CCA by improving the management of climate extremes. The guidebook briefly describes the context and relationships between climate change and disaster risk, the processes for adaptation, and the perspective and experiences of DRM that can be utilised within and by CCA. It also provides detailed strategic guidance on how to integrate DRM within the stages of climate change policy formulation, CCA strategy formulation, and the adaptation project cycle.	http://www.adpc.net/2012/download/DRM-Handbook/ADPC%20DRM%20Practitioners%20Handbook%20-%20Climate%20Change%20Adaptation.pdf.pdf
Policy/ Strategy	OECD	2009	Policy Guidance on Integrating Climate Change Adaptation into Development Co-operation	The objectives of the OECD Policy Guidance are to: i) promote understanding of the implications of climate change on development practice and the associated need to mainstream climate adaptation in development co-operation agencies and partner countries; ii) identify appropriate approaches for integrating climate adaptation into development policies at national, sectoral and project levels and in urban and rural contexts; and iii) identify practical ways for donors to support developing country partners in their efforts to reduce their vulnerability to climate variability and climate change.	http://www.oecd.org/dac/environment-development/oecdpolicyguidanceonintegratingclimatechangeadaptationintodevelopmentco-operation.htm
Water	WHO	2011	Guidance on water supply and sanitation in extreme weather events	This publication describes how adaptation policies should consider the new risks from extreme weather events, how vulnerabilities can be identified and which management procedures can be applied to ensure sustained protection of health. It takes an integrated environment and health approach and addresses cross-cutting issues, such as the role of the health and environment sectors in extreme weather, the need for policy dialogue and multi-sectoral partnerships to assess and control risks, and the challenges of different settings.	http://www.unece.org/fileadmin/DAM/env/water/publications/documents/guidelines_E/WHOGuidanceFVLR.pdf
Water	UNEP	2011	Technologies for Climate Change Adaptation – The Water Sector	This guidebook aims to provide expert information on the technologies most relevant for climate change adaptation in the water sector in developing countries. It is meant to be a practical tool for use by a broad range of stakeholders, including those in government agencies, water utilities, community water boards, non-governmental organisations, and private sector companies.	http://www.zaragoza.es/contenidos/medioambiente/onu//issue06/1149-eng.pdf
Water	UNEP	2011	MCA4Climate 1 Multi-criteria analysis (MCA) for improving water resource management	Insights on how sound adaptation policies and plans can be developed for the management of water resources in a changing climate. The focus is primarily on the management of water available in surface water sources or groundwater aquifers.	http://www.mca4climate.info/_assets/files/Water_Management_Final_Report.pdf

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
General	World Vision	2012	Disaster Risk Reduction Toolkit: DRR and CCA Integration into programmes	This user-friendly DRR toolkit in 4 parts, is designed to assist field staff in undertaking the integration of Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) into field programmes more effectively. In addition, the toolkit also serves as a step-by-step guide to help strengthen work in building community resilience.	http://www.wvi.org/disaster-risk-reduction-and-community-resilience/publication/disaster-risk-reduction-toolkit
General	Red Cross/ Red Crescent	2007	Tools for Mainstreaming DRR: Guidance Notes for Development Organisations	It provides a series of 14 guidance notes for use by development organisations in adapting programming, project appraisal and evaluation tools to mainstream disaster risk reduction into development work in hazard-prone countries. The series covers the following subjects: (1) Introduction; (2) Collecting and using information on natural hazards; (3) Poverty reduction strategies; (4) Country programming; (5) Project cycle management; (6) Logical and results-based frameworks; (7) Environmental assessment; (8) Economic analysis; (9) Vulnerability and capacity analysis; (10)Sustainable livelihoods approaches; (11) Social impact assessment; (12) Construction design, building standards and site selection; (13) Evaluating disaster risk reduction initiatives; and (14) Budget support.	http://www.preventionweb.net/files/1066_toolsformainstreamingDRR.pdf
General	SDREP, UNDP	2013	Mainstreaming Climate Change Adaptation in the Pacific: A Practical Guide	This is a practical step-by-step framework on how to mainstream climate change into the development planning and decision-making processes (sector strategies and plans, and budgetary processes) of Pacific island countries and territories. The recommended approach commonly used in the Pacific with analytical inputs from the climate risk management (CRM) framework. It forms a seven-phase process representing a broad outline of how to mainstream climate risk into development planning and policy processes, with analytical inputs, outputs and key decisions described for each step. Steps include: preparatory activities; situation analysis; problem analysis; solution analysis; design of the outputs; implementation, monitoring and evaluation; and review. The process is illustrated with detailed case studies drawn from the region.	http://www.sprep.org/attachments/Publications/Mainstreaming_CC_Adaptation_Guide_.pdf
General	UNDP, Baastel	2010	A Toolkit for Designing Climate Change Adaptation Initiatives	This Toolkit aspires to support all those involved in the design of measurable, verifiable and reportable adaptation initiatives. It provides step-by-step guidance for the design of climate change adaptation projects. As such, it seeks to answer the following question: What are the basic steps in planning and designing an adaptation project?	https://www.undp-aap.org/sites/undp-aap.org/files/A%20Toolkit%20for%20Designing%20Adaptation%20Initiatives%20%28Mar%202010%29.pdf

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
General	GIZ		CI:GRASP	The Climate Impacts: Global and Regional Adaptation Support Platform (ci:grasp) is a web-based climate information service. It aims to support decision-makers in developing and emerging countries to prioritise adaptation needs, and to plan and implement appropriate adaptation measures. ci:grasp provides quick sound knowledge on current and projected climate stimuli under 3 scenarios, climate impacts and adaptation options at the national, sub-national and regional level.	http://pik-potsdam.de/cigrasp-2/
General	CARE	2005	Being Ready - A Guide to the Emergency Preparedness Planning Process	This guide presents a practical, operationally useful process and framework for Country Office emergency preparedness planning.	http://www.careclimatechange.org/files/toolkit/CARE_Being_Ready.pdf
General	IDRC, CCAA	2007	Integrated Climate Risk Assessment workshop training manual	The Manual has been divided into five Modules. The topics covered within these Modules include General Concepts of Climate Risk Management; Methods and Tools for Integrated Climate Risk Management; Adaptation strategies in Integrated Climate Risk Management; Mainstreaming Climate Risk Management in development policies; Capacity gained and benefits by the CCAA-funded projects. Though focused on Africa there are synergies with other areas and most information and learning applies globally.	http://www.idrc.ca/EN/Resources/Tools_and_Training/Manuals/Integrated-Climate-Risk-Assessment-Training-Manual.pdf
General	UNDP	2006	SEA (Strategic Environmental Assessment)	The focus of this Advisory Note is to show how SEA approaches can help mainstream adaptation to climate change into strategic planning. It is used to integrate considerations related to climate change into national development or sectoral management planning or policy-making processes. For more information, visit: www.seataskteam.net	http://www.undp.org/content/undp/en/home/librarypage/environment-energy/climate_change/adaptation/strategic-environmental-assessment-sea-approach-to-adaptation/
General	Nature Conserv-ancy Council	2013	Climate Wizard	Climate Wizard can be used to assess how climate has changed over time and to project what future changes are likely to occur in a given area. It is a programme that enables both technical and non-technical audiences to visualise the effects of climate change.	http://www.climatewizard.org/
General	UNFCCC		National Adaptation Programmes of Action (NAPAs)	National adaptation programmes of action (NAPAs) provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which further delay would increase vulnerability and/or costs at a later stage. They are a first port of call in country information research.	http://unfccc.int/adaptation/workstreams/national_adaptation_programmes_of_action/items/4585.php

Sector	Publisher	Date launched/ updated	Name of Tool	Summary	Location
General	UNISDR	2013	How to Make Cities More Resilient: A Handbook for Local Government Leaders	This Handbook is designed primarily for local government leaders and policy-makers to support public policy, decision-making and organisation as they implement disaster risk reduction and resilience activities. It offers practical guidance to understand and take action on the "Ten Essentials for Making Cities Resilient." It provides an overview of key strategies and actions needed to build resilience to disasters.	http://www.unisdr.org/files/26462_handbookfinalonlineversion.pdf
General	UNDP	2007	Gender Mainstreaming: A Key Driver of Development in Environment and Energy	This training manual is developed to help build greater understanding among UNDP staff and partners about the essential gender dimensions involved in ensuring environmental and energy sustainability. It gives an overview of gender issues in environment and energy and how to mainstream gender in policy and practice.	http://www.undp.org/content/undp/en/home/librarypage/environment-energy/sustainable_energy/gender_mainstreamingakeydriverofdevelopmentinenvironmentenergy.html
General	UNDP	2012	Mainstreaming Poverty Environment Linkages into Development Planning: A Handbook for Practitioners	This handbook is designed to serve as a guide for champions and practitioners engaged in the task of mainstreaming poverty-environment linkages into national development planning.	http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/Mainstreaming-poverty-environment-development-planning-handbook.html

Useful websites

Sector	Agency	Date launched/ updated	Name of Tool	Summary	Location
General	AusAID	2013	DEC e-Learning Portal	The Environment, Climate Change and Disaster Risk Reduction eLearning portal has been designed to assist Australian aid staff to develop approaches to integrating DEC issues into programmes. It is a useful tool for partner governments, non-government organisations, educational institutions and multilateral and donor organisations.	http://www.ausaid.gov.au/aidissues/environment/Pages/drr-environment-climate-change-e-portal.aspx
General	CARE	2012	e-Learning Integrating Climate Change Adaptation in Disaster Risk Reduction	This e-Learning package comprises five modules: 1) Concepts in disaster risk reduction and climate change adaptation; 2) Understanding vulnerability; 3) Introduction to disaster risk reduction; 4) Introduction to climate change adaptation; 5) Guiding principles for integrating adaptation in disaster risk reduction. It includes, for example, four fact sheets on Governance in Utilisation of Natural Resources: 1) Public Hearing and Public Auditing; 2) Participatory Wellbeing Ranking; 3) Participatory Governance Assessment; and 4) Livelihood Improvement Plan.	http://www.careclimatechange.org/tools
General	IIED	2008	Environment Inside	Comprehensive website of environmental integration practices in organisations involved in mainstreaming environment into their programmes, as well as key resources and sources of further information. It includes examples of: EIA, SEA, Public Interest Litigation, Citizen's Jury, EMS, Natural Step, Participatory GIS, National SD Strategy, Scenario Planning, National Council for SD, Public Environmental Expenditure, Review, Social Impact Assessment and Sustainability Appraisals.	http://www.environmental-mainstreaming.org
General	World Bank	2013	CCKP (Climate Change Knowledge Portal)	The World Bank Climate Change Knowledge Portal (CCKP) is intended to provide quick and readily accessible climate and climate-related data to policy-makers and development practitioners. Its focus is on adaptation and development, but increasingly also incorporates aspects of mitigation. Its audience is broad and includes national level policy-makers, in-country donors, development practitioners, and technical experts. The CCKP provides structured access to a comprehensive set of quality data, knowledge and analysis tools on climate change, using both World Bank and external sources. It is a tool for integrating environmental issues, green development, disaster risk management, and climate change in the development context. Data include global historical trends and long-term projections aggregated at different spatial and temporal resolutions, and are provided through various state-of-the-art GIS visualisations that display and synthesise spatial data on climate and disaster risk data, impact maps, socio-economic data and mitigation efforts.	http://sdwebx.worldbank.org/climateportal/index.cfm

Sector	Agency	Date launched/ updated	Name of Tool	Summary	Location
General	CDKN	2013	CLIMATE PLANNING Climate Compatible Development Tools: a guide for national planning	The website has summaries of over 30 tools for climate compatible development building and planning, from the donor, private sector, NGO and country-led communities.It provides a comparative analysis of the range of donor, private sector, NGO and country-led methodologies for climate compatible development planning.	http://www.climateplanning.org/
General	BOM	2014	Australian Government Bureau of Meteorology	The Bureau of Meteorology is responsible for providing weather services to Australia and surrounding areas. Its expertise and services assist in dealing with the harsh realities of their natural environment, including drought, floods, fires, storms, tsunami and tropical cyclones through regular forecasts, warnings, monitoring and advice spanning the Australian region and Antarctic territory.	http://www.bom.gov.au/
General	Australian Government	2014	CSIRO (Commonwealth Scientific and Industrial Research Organisation)	CSIRO is Australia's national science agency and one of the largest and most diverse research agencies in the world. Expertise is organised into 11 research areas including climate change and adaptation, food and agriculture, environment, energy, health and well-being among others. It hosts various national reference collections which are available to industry and research partners.	http://www.csiro.au/
General	Australian Government	2014	Geoscience Australia	Geoscience Australia is Australia's national geoscience agency. It provides geoscientific advice and information to the Australian Government, to industry and other stakeholders, and geospatial products such as topographic maps and satellite imagery.	http://www.ga.gov.au/
General	IDS	2014	Eldis	Eldis is an online information service providing free access to relevant, up-to-date and diverse research on international development issues. Eldis includes over 30,000 summaries and links to free full-text research and policy documents from over 8,000 publishers.	http://www.eldis.org/
Agriculture	FAO	2011	FAO-Adapt	FAO-Adapt provides a wide range of data and tools for assessments of climate change impacts and vulnerabilities, and adaptation and mitigation planning related to agriculture and overall food security. It hosts a range of tools and capacity development materials which are easy to navigate.	http://www.fao.org/climatechange/fao-adapt/71452/en/
Agriculture	CCAFS (CIAT)	2014	CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)	CCAFS brings together the world's best researchers in agricultural science, climate science, environmental and social sciences to identify and address the most important interactions, synergies and trade-offs between climate change and agriculture.	http://ccafs.cgiar.org/resources/tools-maps-models-and-data#.UuvkmRB_voE

Sector	Agency	Date launched/ updated	Name of Tool	Summary	Location
Communities	World Bank	2012	we-ADAPT	weADAPT is a website and network based around climate adaptation issues designed to facilitate learning, exchange, collaboration and knowledge integration to build a professional community of practice on adaptation issues. It allows practitioners, researchers and policy-makers to access credible, high-quality information and to share experiences and lessons learnt with the weADAPT community. The Knowledge Base contains over 2000 articles and case studies, organised by theme, network, or project. The Adaptation Layer contains downscaled, station-level climate data from Africa and Asia.	http://weadapt.org/initiative/economics-of-adaptation
General	SOPAC/ SPC, WB, ADB, Gov. of Japan, GFDRR	2012	PCRAFI (Pacific Catastrophe Risk Assessment and Financing Initiative)	The Pacific Disaster Risk Assessment project provides 15 countries with disaster risk assessment tools to help them better understand, model, and assess their exposure to natural disasters. PCRAFI has geo-referenced data for hazard modelling: satellite imagery, topographic maps, bathymetry maps, surface geology maps, surface soil maps, land cover/land use maps, geodetic and fault data, historical catalogues of tropical cyclones and earthquakes.	http://pcrafi.sopac.org/ http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ms_cook_sopac_session_4_barbados_2012.pdf

Internal tools and information

Publisher	Date launched/ updated	Name of Tool	Summary	Location
AusAID	2012	Environment Management Guide for Australia's Aid Program	Sets out the most comprehensive practical guidance on DEC integration as part of the Australia aid programme's environmental management system. Note: This is a management guide, not a policy document.	http://aid.dfat.gov.au/Publications/Pages/2297_1393_1917_9648_6600.aspx
AusAID	2012	Integrating Environment into Investment Development Rules and Tools	Supporting guidelines under the Design section of Rules and Tools. This will be superseded in 2014 with a new Aid Programming Guide.	DFAT Aid intranet
AusAID	2010	Environment and Climate Change Fast Fact Sheets 2010	A series of Fast Fact Sheets for DEC considerations relating to the MDGs, education, health, gender and infrastructure, communicated on the DEC Sharepoint of the DFAT Aid Intranet.	DFAT Aid intranet
AusAID	2013	Environment Safeguard Policy Notes (ESPN)	The Environment Safeguard Policy Notes provides information on protocols, environmental impacts and alternatives for building practices and materials, asbestos, copper chrome arsenate (CCA) treated timber, seawalls, and coral use in construction.	DFAT Aid intranet
AusAID		Integration Action Plan - Philippines	An internal document located on the DEC Sharepoint of the DFAT Aid Intranet.	DFAT Aid intranet
AusAID	2009	Investing in a Safer Future - A Disaster Risk Reduction policy for the Australian aid programme	The goal of this policy is the reduced vulnerability and enhanced resilience of countries and communities to disasters.	http://aid.dfat.gov.au/aidissues/drr/pages/drr-policy.aspx
DFAT	2014	Integration in Practice Handbook 2010	Guidance on how to integrate DEC at all stages of the project management cycle with practical analysis, assessment and actions.	http://aid.dfat.gov.au/publications/pages/5275_8593_5049_8126_8631.aspx
OECD		DAC Guidelines and Reference Series Applying Strategic Environmental Assessment	Good practice guidance for development co-operation.	http://intranet2.ausaid.gov.au/sharedsites/cce/Documents/OECD%20(2006)%20Guidance%20and%20best%20practice%20on%20SEA.pdf

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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Advancing Integration supports the systematic consideration of disaster risk reduction, environment and climate change adaptation and mitigation into humanitarian and development practice.

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