

Advancing  
Integration  
series



Australian Government

Department of Foreign Affairs and Trade

# A spotlight on South Asia

Australia's integrated approach: development  
outcomes in water, food and energy

Maylee Thavat



# Preface: Advancing Integration

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

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

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

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

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

## A map of our journey

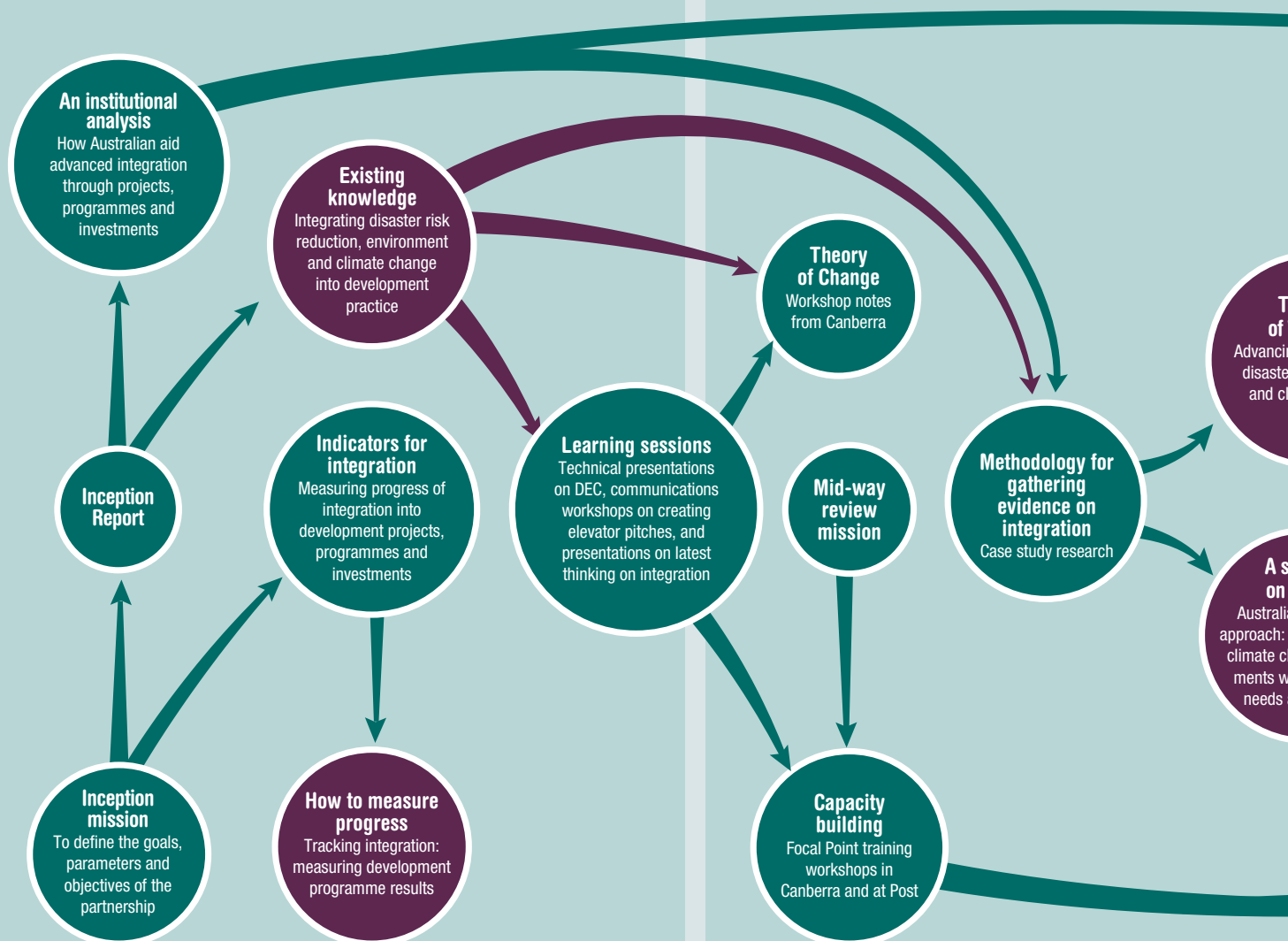
Integrated approaches to development: disaster risk reduction, environment and climate change adaptation and mitigation (DEC integration)

### FIRST

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

### SECOND

Challenge existing knowledge through grounded research and



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

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

improve the sustainability and effectiveness of development programmes.

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

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

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

Katie Peters, Research Fellow,  
Overseas Development Institute

\*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.



# Contents

---

<b>Acronyms</b>	<b>iii</b>
<b>Abstract</b>	<b>iv</b>
<b>1 Introduction</b>	<b>1</b>
<b>2 South Asia: a region linked by common disaster risk, environment and climate challenges</b>	<b>2</b>
2.1 DEC risks	2
2.2 Implications of DEC risks on the water-food-energy nexus	3
<b>3 DEC integration through cooperation</b>	<b>4</b>
<b>4 Australian assistance to South Asia</b>	<b>5</b>
<b>5 The pathway to DEC integration within DFAT</b>	<b>7</b>
<b>6 Conclusion</b>	<b>9</b>
<b>References</b>	<b>10</b>

# Acronyms

---

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AusAID	Australian Agency for International Development
CGIAR	Consultative Group on International Agricultural Research
CIDA	Canadian International Development Agency
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEC	Disaster risk reduction, environment and climate change adaptation and mitigation
DFAT	Department of Foreign Affairs and Trade
GDP	Gross Domestic Product
ICIMOD	Integrated Mountain Development
NGO	Non-Governmental Organisation
ODI	Overseas Development Institute
SAARC	South Asian Association for Regional Cooperation
SAWI	South Asia Water Initiative
SDIP	Sustainable Development investment Portfolio
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific



# Abstract

South Asia is a region linked by common challenges, including those associated with disaster risk, achieving environmental sustainability and addressing the impacts of climate change. These issues have significant implications on some of the regions core resources such as water, food and energy security. Across South Asia, countries are putting into place the institutional and policy architecture to help address these in an integrated manner. In support of this, Australian aid to the region has encouraged more concerted attention onto how disasters, environment and climate change (DEC) can be integrated into development approaches. Based on secondary material and interviews with Australian aid staff, this paper does not attempt to provide a comprehensive assessment of DEC integration across South Asia; it provides a rationale for why integration is important and how this may be achieved. The paper closes with a set of recommendations for Australian aid to bolster its ongoing support to DEC integration across the region.





# 1 Introduction

The case of South Asia demonstrates how breaking out of disciplinary and sector-based silos can help to address shared challenges, such as risks associated with DEC. Working across the region through different policy spaces can also help address the big challenges of sustainable development – water, food and energy – in a more coherent way. These are all common goods that underpin a range of other development challenges, and will all be affected by DEC. To date, Australian aid expertise, in collaboration with its development partners, has helped support work across different sectors in the region. With illustrations from this work, the South Asia case study seeks to demonstrate ‘triple wins’ that can be achieved in disaster risk reduction, environment and climate change through understanding the connections and successfully ‘joining the dots’ in the water, agriculture and energy sectors.

First we consider the commonalities across the region – in terms of disasters, environment and climate change – before looking at selected examples of how regional cooperation may provide a platform for dealing with these issues. Australian assistance to South Asia is then explored, and a set of recommendations for how Australia can continue to play a supportive role in ensuring DEC integration is pursued across the region.

## 2 South Asia: a region linked by common disaster risk, environment and climate challenges

South Asia is noted by many development agencies (World Bank, 2007; Kher, 2012; AusAID, 2013) as one of the least economically-integrated regions in the world. Complex security and political divisions have detached these countries from one another despite shared borders and cultural, historical and linguistic commonalities (Kher, 2012). However, this situation is changing. Spurred, in part, by the joint challenges in managing trans-boundary disasters, climate change impacts and environmental resources, countries of the region have begun to cooperate and coordinate across borders.

Countries of the South Asian region are linked through common geophysical processes and topography. Most of the region sits on the Indian sub-continental tectonic plate, isolated from greater Asia by mountain barriers. The region extends in a diamond shape from the Himalayas in the north, the Hindu Kush range to the west and the Arakan Mountains in the east, down south to the Indian Ocean – the Bay of Bengal to the east and the Arabian Sea to the west. Descending from the mountains, the fertile plains are watered by three major river systems: the Indus, Brahmaputra and Ganges. These river systems, fed by glacial melt from the mountain ranges and swelled by the monsoon system, carry soil and nutrient loads onto the plains. The plains support approximately

one billion people or one seventh of the world's population. Monsoons are the dominant climate pattern of South Asia and key to soil fertility and therefore agriculture and life in the region.

### 2.1 DEC risks

The combined issues of disaster risk reduction, environment and climate change adaptation and mitigation (DEC) are intertwined in the South Asia region. It is already marked by high rates of natural hazard-related disasters,<sup>1</sup> with increased frequency and severity of floods in some areas and prolonged drought in others (Sivakumar and Stefanski, 2011). The environmental impact of climate change on water and agriculture is likely to undermine the ability of these countries and their donor partners to reduce poverty and achieve human development goals in wide-ranging sectors such as economic development, health, education, and food security. For example, the World Bank (2009) estimates that a 2°C temperature increase could result in permanent GDP reductions of 5% in the region and entrap millions more in poverty. Indeed, Australian aid programmes (AusAID, 2013) noted that the poorest areas of South Asia overlap with the most environmentally stressed regions and estimates that environmental degradation costs between 5 and 10% of GDP in India, Bangladesh, Nepal and Pakistan.

---

<sup>1</sup> South Asia is extremely vulnerable to natural disasters, with more than 900 events reported since 1970 alone. Between 1990 and 2008, more than 750 million people—50 per cent of the population in the region—were affected by at least one natural disaster, leaving almost 230,000 dead and about USD\$45 billion in damages (World Bank, 2009).



## 2.2 Implications of DEC risks on the water-food-energy nexus

Problems in three core areas – water, food security and energy – will be compounded by disasters, climate change and environmental degradation. Water is the common resource that links the countries of the region. Water is shared throughout the region's 12 river basins. As climate change alters weather patterns and affects glacial melt in the Himalayas, the impacts on river flow and water demand are of utmost importance. Although recent studies show that total basin runoff volumes are likely to be sustained (Immerzeel et al., 2013), these flows will be more erratic (Immerzeel et al., 2013). Erratic river flows combined with projected population increases mean that water management will remain a central issue for the region, concomitantly impacting on agricultural production and energy demands. More erratic flows will impact upon the approximately 170 million people in South Asia who do not have access to safe water (UNICEF, 2013).

Water is naturally vital to agriculture and food security in the region. The population of South Asia is largely dependent on agriculture for both subsistence and income. Increased frequency and severity of both floods and droughts will impact agricultural production. Yields of staple crops such as maize, rice and wheat are predicted to decline by 6%, 17% and 50%, respectively (IFPRI, 2009). Finally, energy to fuel agricultural productivity,

transport crops and pump water remains a core challenge for the region. South Asia has the lowest per capita energy use. Despite this, many countries are struggling to deal with increases in energy demand, with countries experiencing rolling blackouts in 2012 (BBC, 2012). The three major countries of the region – India, Pakistan and Bangladesh – are known as energy-deficit countries consuming more energy than they produce, mainly through the importation of oil and other fossil fuels. Moreover, there is currently no regional energy market or framework for energy trade.

The 'water-food-energy nexus' is a term that has emerged to describe the three core and mutually interdependent resources crucial to sustaining people and development. UNESCAP (2012, p6) notes that:

*These three resources share many comparable characteristics: billions of people are without access to them; global demand is rapidly growing; all face resource constraints; all three are goods involved in international trade with global implications; each has different regional availability and variations in supply and demand; and all operate in heavily regulated markets. Moreover, global water cycles, the carbon energy cycle, food production, and climate change are inseparably linked. Because of these reasons, they present deep security issues as they are fundamental to the functioning of society.*

# 3 DEC integration through cooperation

As in the case of disaster risk reduction, environment and climate change, the resources in the water-food-energy nexus cannot be dealt with effectively in an isolated manner. An integrated approach to resource management and governance within sectors (at the country level) and at different scales (beyond the country level) not only helps to achieve goals in all three resource areas but also helps to build resilience to disasters, climate change and environmental impacts. Institutionally, however, an integrated approach requires interdisciplinary methodologies to help dismantle silos across sectors and increase cooperation within and between governments for both the countries of the region and the donor partners who support them.

A key body for regional cooperation, the South Asian Association for Regional Cooperation (SAARC), acts as a platform from which regional challenges can be overcome. However, the complex political and economic context in which these shared challenges are evident is a difficult working environment in which to achieve regional action or agreement. Often mired in long-standing political tensions, SAARC has also been limited by its lack of funding and the varied levels of political support received by its members. As a result, several long-standing water treaties have had only limited development impact and cross-border river basin management has been weak, suffering from a lack of reliable data and poor decision-making on influencing flood control, river diversion and dam building. This, however, appears to be changing as the issues including disasters, environment and climate change continue to present trans-boundary challenges, thereby acting as a catalyst for greater cooperation. However, it remains to be seen whether SAARC will play a significant role in building this cooperation.

Nonetheless, the topics of flood management and climate-resilient agriculture are fast becoming key areas of cross-border consensus. For example:

- In September 2011, the Governments of India and the Government of Bangladesh signed a Framework Agreement which called for enhanced efforts in cooperative water management.
- In November 2011, leaders at both the SAARC meeting and the Climate Summit for a Living Himalayas called for enhanced trans-boundary cooperation on water.
- In 2011, the World Bank signed a USD\$1 billion loan to support India's management of the Ganges River Basin.
- In 2012, state and central governments of India, Nepal and Bangladesh supported the publication and dissemination of the Ganges Strategic Basin Assessment.

This newfound regional cooperation around water resource management has been enabled by a number of regional and multilateral scientific organisations. The Himalayan-based International Centre for Integrated Mountain Development (ICIMOD) and the Consultative Group on International Agricultural Research (CGIAR) have received strong support from governments in the region, while the World Bank and Asian Development Bank (ADB) have played important roles in energy, infrastructure, water and resource management. However, regional work must be supported by strong efforts at the national level.



# 4 Australian assistance to South Asia

Technical and scientific cooperation around resource management has been the entry point for Australian assistance. Australia's Sustainable Development Investment Strategy for South and West Asia helps build landscape coherence between different technical assistance packages and between different organisations working in water, energy and agriculture to ensure an integrated approach between partners, sectors and governments. This has necessarily employed DFAT's<sup>2</sup> considerable skills in partnership negotiations and governance arrangements and has had flow-on effects to improved dialogue between partner government decision-makers over trans-boundary resource management, even in times of regional tension.

Australia also supports the World Bank-led South Asia Water Initiative (SAWI), a multi-donor partnership including Norway and the United Kingdom aimed at increasing regional cooperation and management of the Greater Himalayan trans-boundary water systems.<sup>3</sup> In addition, Australia is sharing its own considerable experience and expertise in water resource management, climate change and sustainable agriculture through the Commonwealth Scientific and Industrial Research Organisation (CSIRO) (Australia's premier science and research agency), the Australian Centre for International Agricultural Research (ACIAR) (a statutory authority that operates as part of the Australian Government's development cooperation programmes) and indirectly through eWater (a joint state and federal government-supported venture aimed at promoting software developed in Australia for hydrological management).

In parallel with Australia's Sustainable Development Investment Portfolio (SDIP), the India-Australia Water Science and Technology Partnership (partially supported by the SDIP) is a good example of how

Australian expertise in water resource management is being shared and applied to river basins in such a way that it benefits the whole region. This capacity building includes making available a water management technology called Source, a modelling programme initially designed to support the Murray-Darling Basin Authority and help manage water scarcity. Developed through Australia-wide collaboration and supported by state and federal governments, Source is designed to work in a range of climate, geographic, water policy and governance settings, building on existing models and data. It is designed to include both human and ecological impacts on water management by integrating water policies with other measures; such as water savings and sharing arrangements for a whole river system including any connected groundwater systems such as cities, agriculture and environmental needs (eWater, 2013).

The Partnership is also a good example of how DEC integration focused at the country level can support region wide impacts. This is because climate change impacts on water also affect wider regional environmental services provided to agriculture, water and sanitation and related health impacts, biodiversity and their ecologies and everything they support. Improved river management in one country is also crucial to disaster risk reduction in the region as it helps to build greater resilience against the impacts of floods and drought. The merits of Source are such that the modelling platform is now being trialled in several rivers and sub-basins including the Brahmaputra, Ganges, Indus and Krishna.

---

2 At the time of writing, AusAID was the Australian Government's implementing agency and since 1 November 2013 has been incorporated within the Department of Foreign Affairs and Trade (DFAT).

3 Includes Afghanistan, Bangladesh, Bhutan, China, India, Nepal and Pakistan.

It is through initiatives such as the India-Australia Water Science and Technology Partnership, SAWI and others that Australia is helping to influence long-term sustainable development outcomes not just in water but also in agriculture and energy. While water has been the entry point, the water-energy-food nexus has necessarily led the agency towards an integrated approach. For example, DFAT is also working with ACIAR and local NGOs to help support farmers in cross-border areas manage water supplies to improve productivity and diversify crops for greater livelihood resilience. Similarly, Australian Government investments in energy will also consider the inter-linkages with agricultural productivity and/or water efficiency. Utilising solar energy for water pumping is one of several opportunities being explored. The ADB with support from the Australian Government is also working on solar and biogas mini-grid approaches in Bangladesh and Nepal that can support increased post-harvest agricultural productivity (ADB, 2013).

These combined efforts are managed through the SDIP for the region. The portfolio outlines a package of development outcomes aimed at increased water, food and energy security in South Asia to facilitate economic growth and improve livelihoods. They target the poorest and most vulnerable, particularly women and girls, through:

1. Confident and cooperative decision-making across jurisdictional borders for the effective and equitable management of shared water resources.
2. Increased access to and cooperation on energy.
3. Increased agricultural productivity and farm incomes through the adoption of more efficient and sustainable agricultural practices and better developed value-added market chains.



# 5 The pathway to DEC integration within DFAT

Within Australian aid the pathway to greater DEC integration was forged through the acknowledgement that development challenges increasingly transcend national boundaries. Subsequently, the SDIP was created to complement, but not replace, traditional bilateral approaches. For regional approaches to be effective they must be supported by coherent sub-regional efforts, interfacing with bilateral engagements but not necessarily managed by DFAT. In Bangladesh, for example, understanding and dealing with the impacts of climate change is crucial to disaster risk reduction and therefore social protection (a major objective of the bilateral programme).<sup>4</sup> To illustrate, it is now well established that the poorest developing countries and the most vulnerable people in those countries (women, children and the disabled) are also the most vulnerable to the impacts of disasters and climate change (Davies, 2009; Kahn, 2005). In places like Bangladesh, the way in which climate change impacts on agriculture and water will interact with the lives of the poor and their livelihood strategies differently. Davies et al. note that in the water sector impacts will affect men and women differently, leading to different needs and priorities. Climate change will increase the time taken to collect water in rural areas, a task mainly done by women and girls, due to the need to travel greater distances to find water. In urban areas, water collection is also an issue as women and girls may spend hours queuing for intermittent water supplies (Davies et al, 2009: 203).

In agriculture, alternative livelihood strategies may need to be promoted. A Canadian International Development Agency (CIDA) project that explicitly sought to mainstream climate considerations into its programme encouraged the uptake of duck-rearing to enhance income and achieve greater resilience to the impacts of floods.

For bilateral programmes in the South and West Asia Division, the integration of DEC approaches does not need to be a solitary effort. As this regional case study demonstrates, greater DEC integration emerged from the acknowledgement that Australian aid is most effective when it works in partnership, applying considerable skill in coordination, consensus-building and negotiation to achieve coherent outcomes across landscapes, sectors and disciplines. Understanding that ‘it’s all connected’ has helped the Regional South Asia section to leverage Australian expertise in water resource management to achieve outcomes in agriculture and energy directly, and in health, governance, infrastructure and economic development indirectly. More specifically, interviews with Regional South Asia staff revealed that greater DEC integration in the water-food-energy nexus has been achieved through:

## 1. Drawing on and coordinating Australian expertise

Australian aid does not always have the luxury of drawing on the high levels of dedicated specialist expertise of some other aid donors. However, expertise often exists in the wider government agencies and institutes such as CSIRO or ACIAR, and other civil society organisations often maintain cadres of specialist staff. Linking with these organisations and facilitating their inputs can improve policy coherence by bringing in wider experience and whole-of-government approaches. Institutionally, DFAT now has a unique ability

---

4 ‘Climate change will make it impossible for the world to achieve the Millennium Development Goals. Poverty is bound to increase. Food security is bound to get worse.’ (Professor Richard Odingo, vice-Chairman of the IPCC in Davies et al, 2009: 202)

to link partner governments, Australian partners, multilaterals and NGOs and bring them together to tackle common challenges.

**2. Building coherence around existing programmes and research towards a bigger picture for enhanced outcomes**

Applying a DEC integration lens assisted the South Asia programme to consolidate and build upon a range of existing initiatives and investments in such a way that linked small, pre-existing investments with bigger impacts. Having programmes that directly benefited the poor and worked with local communities also helped to link high-level policy aims with grounded evidence.

**3. Leveraging approaches in one area to achieve strategic outcomes in another**

In South Asia, technical assistance has been a useful approach to building cross-border cooperation, improving natural resource governance and building greater peace and security for a region traditionally mired by

tensions and conflict. Likewise, bilateral approaches such as the India-Australia Water Science and Technology Partnership are being used to support region-wide outcomes. As this case study has demonstrated, work in one sector such as water can help to achieve positive outcomes in other areas. Awareness of how action in one sector or area can impact on another can enable programmes to demonstrate wider impact, improve value for money and scale up efforts.

**4. Flexible approaches that stay open to possibilities**

For both Australian aid and development in general, change is always certain. Although country programme and regional strategies tend to span a number of years, changes and opportunities are dynamic. During interviews with staff in the South Asia Regional programme, it was stressed that the work of aid and development is increasingly multidisciplinary, multi-scaled and multi-sited. Remaining responsive to emerging connections, political opportunities and impacts is key to maintaining an effective and relevant programme.



# 6 Conclusion

South Asia is linked through its geography, climate and vulnerability to disasters, climate change and environmental degradation. Water resource management of rivers is a key entry point for working in the region and in the interconnected sectors of food and energy. This case study demonstrates how an integrated approach to DEC can help build coherence across borders, sectors and disciplines. Doing so plays to existing strengths in facilitating and coordinating partners and has led to outcomes beyond the immediate concerns. Staff involved in these programmes emphasised the need to stay open and flexible to emerging opportunities and evolving situations. Collaborating with new regional approaches can help bilateral programmes both in the rest of the South and West Asia Division and the agency as a whole to build greater programme coherence between DEC issues and the wider sectors that they impact whether water-energy-food or social protection.

# References

---

- ADB (2013) Energy for All Initiative – Empowering the poor through access to energy – ADB promotes new approaches for scaling up access to energy for the poor. Retrieved 10 August 2013 at <http://www.adb.org/sectors/energy/programs/energy-for-all-initiative>
- AUSAID (2013) Working together on water resource management. Retrieved 10 August 2013 at <http://www.ausaid.gov.au/publications/web/unlockingpotential/Pages/climate-change.aspx>
- AUSAID (2013a) Sustainable Development Investment Strategy: Promoting Water, Food and Energy Security in South Asia. AusAID. Canberra.
- DAVIES, M., OSWALD, K. & MITCHELL, T. (2009) Climate Change Adaptation, Disaster Risk Reduction and Social Protection. IN OECD (Ed.) *Promoting Pro-Poor Growth Social Protection*. Paris, OECD.
- EWATER (2013) eWater Source. Retrieved 10 August 2013 at <http://www.ewater.com.au/products/ewater-source/>
- IFPRI (2009) Climate Change: Impact on Agriculture and Costs of Adaptation. Washington, International Food Policy Research Institute.
- IMMERZEEL, W. W., PELLICCIOTTI, F. & BIERKENS, M. F. P. (2013) Rising river flows throughout the twenty-first century in two Himalayan glacierized watersheds. *Nature Geoscience*, 6, 742-745.
- KAHN, M. (2005) The Death Toll from Natural Disasters: The Role of Income, Geography and Institutions. *The Review of Economics and Statistics*. 87 (2): 271-284.
- KHER, P. (2012) Regional Value Chains Background Paper: Political Economy of Regional Integration in South Asia. Geneva, UNCTAD.
- SINGH KHADKA (2012) South Asia's energy crisis demands collective action. BBC. Retrieved 10 August 2013 at <http://www.bbc.co.uk/news/business-19107372>
- SIVAKUMAR, M. V. K., & STEFANSKI, R. (2011) Climate Change in South Asia. In LAL, R. (Ed.) *Climate Change and Food Security in South Asia*. Geneva, Climate Prediction and Adaptation Branch, World Meteorological Organization.
- UNICEF (2011) Water and Sanitation. Retrieved 10 August at [http://www.unicef.org/rosa/survival\\_development\\_2544.htm](http://www.unicef.org/rosa/survival_development_2544.htm)
- UNESCAP (2012) The Status of the Water-Food-Energy Security Nexus in Asia and the Pacific region: A position paper commissioned by the United Nations Economic and Social Commission for Asia and the Pacific. Bangkok, UNESCAP.
- WORLD BANK (2007) South Asia: Growth and Regional Integration. Washington, World Bank.
- WORLD BANK (2009) South Asia Climate Change Strategy. Washington, World Bank.





## 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*

This report was commissioned by the Department of Foreign Affairs and Trade (DFAT) and conducted by the Overseas Development Institute (ODI). The views expressed in this report are those of the author(s) and do not necessarily reflect the views of DFAT, the Australian Government or ODI.

© Overseas Development Institute 2014. This work is licensed under a Creative Commons Attribution-NonCommercial Licence (CC BY-NC 3.0).

ISSN (online): 1759-2917

ISSN (print): 1759-2909

Cover image: Abbie Traylor-Smith, Rizma, Aceh, Indonesia 2009

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

## **Overseas Development Institute**

203 Blackfriars Road | London SE1 8NJ | UK

Tel: +44 (0)20 7922 0300

Fax: +44 (0)20 7922 0399

**[www.odi.org](http://www.odi.org)**

This research was supported by the Australian Government.