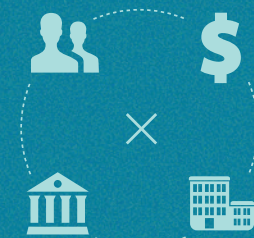


The South Asia Women's Resilience Index

Examining the role of
women in preparing for
and recovering from
disasters

A report by The Economist Intelligence Unit



Commissioned by

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Department of Foreign Affairs and Trade

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Preface

This report discusses the findings of the South Asia Women's Resilience Index (WRI), a tool that assesses countries' capacity for disaster risk reduction and recovery and the extent to which the needs of women are being integrated into national resilience-building efforts. The WRI was designed and constructed by The Economist Intelligence Unit (EIU) using the latest available data for seven countries in South Asia and including Japan as a benchmark. A detailed methodology for the index is included in an appendix.

The index results and the findings of this white paper are those of the EIU alone and do not necessarily reflect the views of ActionAid or the Australian Department of Foreign Affairs and Trade. The index was constructed by Sumana

Rajarethnam, Renuka Rajaratnam, Atefa Shah and Hilary Ewing, with input from an expert panel of advisors: Margaret Alston, Vinod Menon and Alex de Sherbinin. This paper was written by Manisha Mirchandani and edited by David Line.

Our thanks are due to all advisors and interviewees¹ for their time and expert insights in the construction of the index and the research for this paper. Special thanks are due to Harjeet Singh and Melissa Bungcaras of ActionAid for their advice and support throughout this project, and to the members of the expert advisory group convened by ActionAid for their insights and advice on the design of the index.²

More on the WRI is available at www.economistinsights.com.

¹ Interviewees for this paper are listed in Appendix 3.

² At the invitation of ActionAid, representatives of international NGOs, research institutions, ActionAid International and country programmes, together with local community experts, gathered in Kathmandu, Nepal on April 9th-10th 2014 to discuss the development of a gender-sensitive resilience index. Participants represented a range of thematic perspectives across disaster risk reduction, climate change, gender and women's rights, humanitarian response, monitoring and evaluation, and community development. See Appendix 4 for full list of attendees.

Summary of key findings

South Asia has been affected by a number of disasters in recent years—natural, economic and conflict-related—drawing attention to the region's vulnerability and pushing disaster risk reduction (DRR) and resilience up development and policymaking agendas. The role of women in DRR and building resilient communities has received less attention than it deserves. Among other reasons, limited mobility and the socially assigned role of women as carers have rendered them more vulnerable than men when disaster strikes. Yet evidence also points towards the ability of women to lead the preparation and response to disruptive events. The intimate "front-line" knowledge that women have of their local environment suggests enormous capacity for them to be transformational agents in community disaster planning and preparedness, and to play a significant role in bolstering resilience. Women in South Asia face a number of socio-cultural and economic barriers to exercising this potential.

As discussions continue towards updating the landmark Hyogo Framework for Action (HFA)—an international ten-year plan, agreed in 2005, to build the resilience of communities to disasters—the need both to understand women's vulnerability and realise their potential for leadership in building resilience is growing acute. With that in mind, ActionAid Australia,

with the support of ActionAid's International Humanitarian Action and Resilience Team (IHART) and the Australian Department of Foreign Affairs and Trade, commissioned the EIU to build a Women's Resilience Index (WRI): a benchmark tool that measures and compares the disaster resilience of South Asian countries in the event of a disruptive shock, with a specific focus on the experiences of women in the region.

The WRI draws upon a range of indicators in four categories—Economic, Infrastructure, Institutional and Social—to assess the capacity of a country to adapt to and recover from quick-onset events that fall outside the range of those that are normal or anticipated. Developed with inputs from an expert panel and an advisory group, approximately 40% of the 68 indicators in the WRI data are disaggregated by sex or are sensitive to women, and reflect the different requirements of women in preparing for, mitigating and recovering from a shock.

The key findings of the index and research for this paper include:

- **Most South Asian countries fare poorly in considering women in DRR and resilience building**
Although the WRI is scaled from 1-100, none of the seven developing South Asian countries in

the Index scores above 46.4; Japan (included as a developed-country benchmark) scores 80.6. Given the correlation between economic development and a country's ability to invest in DRR capacity, it is not realistic for countries in South Asia to reach Japan's level in the near future, but this does not mean that significant progress cannot be made in many areas. **Bhutan, Sri Lanka, Nepal, India, the Maldives** and **Bangladesh** achieve an overall score in a relatively narrow band of 40–46.4.

- **Pakistan stands out for its limited progress, but it is developing some best-practice policies**

Pakistan emerges as a lower outlier in the index, with an overall score of 27.8. In both the economic and infrastructure categories it ranks seventh (out of eight). This is in part because women are highly restricted in their access to credit and because large swathes of the population lack everyday access to sanitation facilities and healthcare, with implications for the wellbeing of women and their dependants. In the institutional and social categories it ranks sixth and eighth, respectively, in part owing to social and cultural attitudes related to women's mobility and access to education. However, the 2014 *National Policy Guidelines on Vulnerable Groups in Disasters*, produced by the Gender and Child Cell within Pakistan's National Disaster Management Authority, show a commitment to addressing the specific needs of women in disaster management planning.

- **Gaps between policy and practice undermine women's disaster resilience across South Asia**

Though Pakistan's 2014 *National Policy Guidelines* are commendable, they are yet to be implemented in practice. A similar gap between policy and practice is evident in other countries in the index, and for a variety of issues beyond gender equality. For instance, the WRI shows that disaster readiness plans or

regulations that include the transfer of some level of responsibility and authority to the local level exist across all of South Asia—but also that this is not necessarily taking place in practice. This is in a context where limited government effectiveness can sometimes impede the implementation of policy: the Maldives, Bangladesh and Pakistan score lowest among the countries in the index on this front.

- **A vicious circle of vulnerability and disempowerment means women's capacity to build resilience is not being realised**

Women in South Asia face a number of socio-cultural and economic barriers to helping plan for disasters, mitigate their impact, lead recovery and build resilience. These range from lower participation in education and decision-making, to practical issues regarding access to finance and limited mobility. This means that their perspectives are not always incorporated into governments' disaster management strategies, and that resulting response and reconstruction efforts tend to overlook the specific vulnerabilities and needs of women when disasters strike. The pervasiveness of general violence in some South Asian countries, and prevailing attitudes to violence against women (VAW), matter here. No South Asian country in the index acknowledges this in its policies or planning for disaster management as a significant issue, in spite of high baseline levels of violence in some countries and a wider recognition of VAW as a problem.

- **There are nevertheless examples in South Asia of how women are making important contributions to building disaster resilience**

In spite of high levels of gender inequality in many South Asian societies, anecdotal evidence indicates that women in South Asia can be an important human resource in disaster preparedness and response at the grassroots level. As caregivers they are already

taking on a significant “invisible role” in caring for those most affected by a shock. They have proven skills in community mobilisation, as reflected by the proliferation of self-help groups and networks across the region—there are some 3m registered in India alone. Women-specific social networks focused on health and environmental issues have been used to coordinate community-level DRR and recovery efforts as far back as during the 1996 Pakistan floods, where these informal arrangements were central to the rapid distribution of food aid and reconstruction of housing. In these and other examples, whether women are granted ownership of such initiatives and given decision-making power about funds put directly in their hands are important factors in their success.

These findings have important implications for DRR policy planning in South Asia:

- **Empower women to build disaster resilience at the community level**

Countries in South Asia need to improve the “bargaining power” of women, through economic empowerment, by improving access to finance and by involving them in local planning as decision-makers. Initiatives such as the Community Resilience Fund, which devolves financing to grassroots women's groups for disaster planning based on local priorities, offer potential models. Undoubtedly, the deployment of these are contingent on sensitivity to cultural norms in more conservative settings: ensuring the presence alongside men of female trainers, socialisers and monitoring officers is crucial to DRR activities, as are women front-line responders.

- **Emphasise women's capacity for leadership—and their right to be included in DRR activities—as much as reducing their vulnerability**

The emphasis in current policy planning is very much on reducing vulnerabilities, while

the leadership skills that women have—exactly those that are required in disaster management—are largely untapped. Rather than simply being viewed as a group to whom services need to be delivered, women should have the right to be included in, and take leadership of, DRR planning and resilience building. This is not to overlook vulnerability and the need to tailor disaster response and recovery accordingly. However, recognition of the pre-existing resilience of women may open dialogue for more effective responses that build upon experiences and skills gained.

- **Improve monitoring and evaluation, and introduce accountability for gender-specific DRR targets**

Current data for the monitoring and evaluation of DRR are inadequate to track and measure progress on gender equality. One of the key successes of the HFA has been its contribution to driving the establishment of central coordinating bodies and a policy framework for DRR in all the South Asian countries in the WRI. However, the Framework itself is not legally binding, nor are any of the gender provisions within it routinely monitored. Weak realisation of gender-related goals illustrates the need for better data and accountability. Draft consultations have highlighted that gender and women's issues must be built into the 2015 Framework (HFA2) as a matter of priority.

- **Better coordinate and decentralise disaster planning**

DRR has been defined as “everybody's business”, including national, local urban and rural governments, the private sector, scientific, technical and academic organisations, civil society, the media, communities, and households and individuals. This makes coordination a challenge and has a bearing on the implementation of DRR policies in South Asia and on related provisions for gender. Implementation has been a

challenge in transforming policy into practice, particularly with respect to decentralisation. Despite evidence of sub-national provisions and policies, issues of effectiveness and capacity at lower levels of governance have hindered progress.

- **Match DRR and resilience building with broader efforts for poverty reduction and sustainable development**

Building resilience in communities is about providing women in South Asia with the opportunity to enhance their capacity to cope and recover in the face of quick-onset disasters; it might not lead to a material

improvement in their lives. Gender-sensitive DRR policy therefore needs to take place alongside continued poverty reduction efforts to effect transformative change. By the same token, DRR cannot be approached in a vacuum. Despite strengthened disaster preparedness in countries across South Asia over the past ten years, the gains from saving more lives and recovering quickly from disruptive events will continue to be slow if survivors continue to live in poverty, and women continue to be denied equal rights. In this sense, the priorities that will define the UN's Post-2015 Development Agenda are just as important as those that will underpin HFA2. ■

1

Background: Changing perspectives on women in disasters

³ Rego, Loy, "Social and Economic Impact of December 2004 Tsunami". Asia Disaster Preparedness Centre, June 2009.

⁴ Issues of Vulnerability with Specific Reference to Gender in the Asia-Pacific: Post-2015 Framework for Disaster Risk Reduction Consultations. United Nations Office for Disaster Risk Reduction-Regional Office for Asia and Pacific (UNISDR AP), 2013.

⁵ Oxfam Great Britain, "Briefing Note: The Tsunami's Impact on Women". London, 2005.

⁶ Kottegoda, Sepali, "In the Aftermath of the Tsunami: Gender Identities in Sri Lanka", in *Women in Action No.2*. Isis International, Manila, 2007.

⁷ Fothergill A, "Gender, risk, and disaster." *International Journal of Mass Emergencies and Disasters*, 1996.

⁸ Fisher S., "Violence against women and natural disasters: findings from post-tsunami Sri Lanka." *Violence Against Women*, 2010 Aug;16(8):902-18.

⁹ Kottegoda, Sepali, "Mainstreaming Gender in Disaster Management Policy: Key issues and challenges in the Asia-Pacific Region". Keynote Speech at National Women's Education Centre of Japan International Symposium for Disaster Restoration and Gender, 2011.

¹⁰ Reducing vulnerability and improving risk management is one of four themes for the Summit in 2016, of which disaster risk reduction, disaster response, resilience, preparedness and capacity building are core components.

1.1 Global initiatives and context

The devastation caused by the 2004 Indian Ocean tsunami, which led to 220,000 deaths and an estimated US\$9.9bn in economic damage and losses,³ pushed disaster risk reduction (DRR) up the global development agenda and catalysed the ratification of the Hyogo Framework for Action 2005-15 (HFA; see *Box 1*). Endorsed by the United Nations General Assembly, signatories to the HFA have been encouraged to establish or improve their formal DRR institutions, policies and practices—a first-time exercise for the South Asian countries that were party to the agreement.⁴

Anecdotal evidence from the tsunami also brought home the specific vulnerabilities faced by women in disaster situations. For every Indian or Sri Lankan man killed in the Indian Ocean tsunami, four women lost their lives.⁵ As per social and cultural norms, some female victims from the affected countries of Bangladesh, Sri Lanka and India wore long, flowing saris or sarongs and were less likely to have been taught to swim, reducing their ability to escape when the tidal waves hit.⁶ As primary carers, some women felt obliged to stay behind to care for dependants or those less able to leave the home, such as children, the disabled and the elderly.⁷ In addition, stories emerged in the aftermath of the tsunami of physical and sexual violence against women, with girls displaced from their families being particularly vulnerable.⁸ Then, in the reconstruction phase,

the specific needs of women were often ignored. Sepali Kottegoda, chair of Asia-Pacific Women's Watch, a regional network of women's groups, noted that shelters sometimes lacked separate changing and toilet facilities for men and women. "Consideration of the specific needs and concerns of women, we can safely say, was very low on the agenda of planners and decision-makers."⁹

Discussions are in progress to extend the HFA to 2025 (See *Box 1: The Hyogo Framework for Action (HFA): Building the resilience of nations and communities to disasters*), with HFA2 to build upon the existing framework. Meanwhile, the UN's Post-2015 Development Agenda and the World Humanitarian Summit in 2016¹⁰ will also draw attention to issues of DRR, response and preparedness, and how building resilience can reduce vulnerability and manage risk related to disasters.

To this end, governments, development agencies and civil society organisations are reflecting upon lessons learnt from the past decade, informed by the experiences of the elderly, children, minorities—and women. While many countries have made major advances in disaster response—particularly in building institutional capacity for search and rescue and humanitarian assistance—progress in considering the needs and vulnerabilities of women during disasters, and in enabling them to lead planning to mitigate their impact, is less apparent. As noted by an official progress report, "Inclusion of a gender perspective

and effective community participation are the areas where the least progress seems to have been made.”¹¹ Evidently, the specific needs of women need to be understood and addressed in national resilience-building planning and response, while women's rights in determining such policies also need greater recognition.

This raises a number of questions that have implications for regional disaster management policy in the next decade, as negotiations for HFA2, the Post-2015 Development Agenda, The World Humanitarian Summit and other initiatives continue. Why do South Asian women continue to be more adversely affected than men in disasters? In light of indications that

Box 1: The Hyogo Framework for Action (HFA): Building the resilience of nations and communities to disasters

The Hyogo Framework for Action (HFA) is an international policy commitment ratified in 2005, the overarching objective of which is the “substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries” by 2015. As such, it is concerned with risk reduction through measures such as disaster mitigation, adaptation and preparedness—though it does not extend to the post-disaster response, which is anchored in humanitarian law.

The HFA is underpinned by five priorities that have served as guiding principles for achieving disaster resilience for vulnerable communities in the past decade: 1) Ensure that disaster risk reduction (DRR) is a national and local priority with a strong institutional basis for implementation: 2) Identify, assess and monitor disaster risks and enhance early warning: 3) Use knowledge, innovation and education to build a culture of safety and resilience at all levels: 4) Reduce the underlying risk factors: 5) Strengthen disaster preparedness for effective response at all levels.

The HFA has been instrumental in driving regional momentum in disaster risk management in South Asia. This is shown primarily in the development of national and sub-national institutions for DRR (Priority 1)—all South Asian countries in the index now have instituted dedicated disaster planning authorities—and the improvement of capacity to prepare and respond to disasters (Priority 5). However,

progress has been less apparent globally in reducing underlying risk factors (Priority 4), which pertains to reducing individual and community vulnerabilities and improving disaster resilience through mechanisms such as integration with climate change adaptation, environmental management, social safety nets and rural development planning, among other measures.¹²

A number of cross-cutting issues underpin these priorities, such as the gender perspective and cultural diversity. In this area, the differing vulnerabilities of men and women to disasters are recognised within the HFA, as are their different skills and capacities for DRR. Yet, based on reporting, tangible progress in the engagement and role of women across the five priorities—specifically, that a gender perspective should be integrated in all DRR policies, plans and decision-making processes—has not been achieved to date.¹³ Of the reporting countries, 20% referenced reliance on gender integration as a driver of progress in 2009, rising to 26% (2011) and 30% (2013).¹⁴

Discussions on the Post-2015 Framework for Disaster Risk Reduction (HFA2), which is due to be ratified and adapted in March 2015, have recognised that gender issues require a stronger focus on implementation. Gender equality and women's inclusion are emerging as critical factors for consideration, as reflected in the “Zero” draft, which stipulates within its guiding principles that “a gender, age, disability, and cultural perspective should be integrated into disaster risk management.”¹⁵

¹¹ “The Hyogo Framework for Action 2005–15: Building the Resilience of Nations and Communities to Disasters Mid-Term Review”. United Nations Office for Disaster Risk Reduction (UNISDR), 2011.

¹² “The post 2015 Hyogo Framework for Action: Managing risks to achieve resilience.” Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM(2014) 216 final. European Commission, 2014.

¹³ “A Background Paper on gender inclusion in HFA2: Women as a force in resilience building, gender equality in disaster risk reduction.” UNISDR, April 2014.

¹⁴ Ibid.

¹⁵ “Zero draft submitted by the Co-chairs of the Preparatory Committee.” Post-2015 framework for disaster risk reduction. Third United Nations World Conference on Disaster Risk Reduction Preparatory Committee, 20 October 2014.

women's leadership and skills can enhance disaster response to the benefit of communities, what barriers preclude their participation?

1.2 The impact of disasters in South Asia

South Asia has experienced a number of high-profile disasters in the past decade, drawing attention to the region's geographical vulnerability. In the face of rapid population growth and limited resources, the region's emerging economies are grappling with the impact of climatic change—rising temperatures, rising sea levels, and changing rainfall patterns¹⁶—requiring communities to adapt to changing climatic conditions. In some countries, inter-communal tensions and the effects of conflict bring additional complexity to the challenge of strengthening disaster resilience and recovery.

The damage inflicted by disasters in the past two decades shows why disaster management emerges as a critical policy priority. Flood-prone Pakistan has suffered from the highest loss of life of around 174,000 deaths and US\$26bn in damages in 1995-2014 (Figure 1). The 2010 floods in themselves led to losses of close to

US\$10bn, some 6% of the country's GDP.¹⁷

The cost of disasters has also been high for India, where around 99,000 lives and an estimated US\$37bn have been lost as a result. Sri Lanka and Bangladesh, meanwhile, have suffered extensive human and financial losses in the past 20 years, while Nepal has experienced some 5,739 fatalities. Mountainous Bhutan and the low-lying island state of the Maldives have been less susceptible to large-scale losses, though smaller and less diverse economies such as these can be more vulnerable to shocks: the Maldives lost over 60% of its GDP as a result of the 2004 Indian Ocean tsunami, setting back its progression from United Nations "Least Developed Country" (LDC) to "Developing Country" status by around five years.¹⁸

As well as national-scale disasters, localised disruptive events are having just as significant an impact on the communities affected by them: more frequent and extreme events brought about by climate change, such as localised flooding, are expected to make local crop production even more difficult,¹⁹ with implications for the livelihoods of rural, small-scale farmers in particular.

¹⁶ "The Intergovernmental Panel on Climate Change [IPCC]'s Fifth Assessment Report: What's in it for South Asia?" Overseas Development Institute and Climate and Development Knowledge Network, 2014.

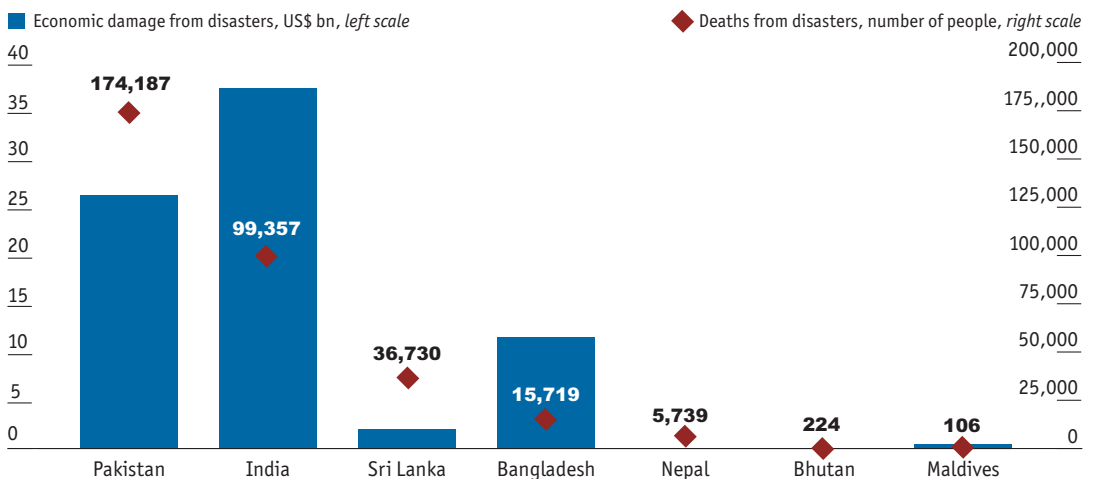
¹⁷ "The Asia-Pacific Disaster Report 2012: Reducing Vulnerability and Exposure to Disasters", United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)/Office for Disaster Risk Reduction (UNISDR), 2012.

¹⁸ Ibid.

¹⁹ "Climate Change Impacts in the Asia/Pacific Region", briefing note, The International Fund for Agricultural Development (IFAD), 2009.

Figure 1

Deaths and economic damage from disasters in South Asia, 1995-2014



Source: Emergency Events Database (EM-DAT: The OFDA/CRED International Disaster Database; <http://www.em-dat.net>)

Governments across the region have upgraded their disaster response systems substantially in the past two decades—particularly following the Indian Ocean tsunami that claimed over 35,000 lives in Sri Lanka, 18,000 in India and 100 in the Maldives.²⁰ Improved processes and technology have contributed to a discernible improvement in lives saved from more recent disasters, as witnessed in cyclone-prone Bangladesh, where improvements in evacuation warnings have led to a large number of lives saved: a 2013 cyclone took 17 lives, down from 3,447 deaths in a 2007 cyclone and a staggering 138,000 lives lost as a result of a 1991 cyclone.²¹

Despite this progress, South Asian countries are now facing a higher incidence of climatic events, the overall economic impact of which is rising—according to the Asian Development Bank, Asia could lose an equivalent to 1.8% of its annual GDP by 2050.²² “Mortality losses are falling, but where South Asia is not doing as well is in terms of economic losses,” says Suranjana Gupta, senior advisor for community resilience at the Huairou Commission, a civil society organisation. With population growth and urbanisation, the rise of cities in the region means that greater concentrations of economic

Box 2: Climate change adaptation through a gender lens: Nepal's National Adaptation Programme of Action

The United Nations Framework Convention on Climate Change (UNFCCC) first introduced gender to global climate change discussions in 2001, specifying gender equality as a guiding principle for the preparation of adaptation plans for the “urgent and immediate needs” of least-developed countries. It also highlighted the importance of women participating in climate change negotiations in a meaningful way.

Nepal's 2010 National Adaptation Programme of Action (NAPA), and the process through which it was developed, attempted to bring these principles to life. Nepal considered gender as a “cross-cutting” theme throughout its plan, meaning that it included the issue across each of the key sectors under consideration.²³ Research on gender impact analysis further underpinned the issue, drawing upon a country study on the differential effects of climate change events on men and women.

With 80% of adaptation funds planned for disbursement at the local level, Nepal developed Local Adaptation Plans of Action (LAPA) with provisions for women to participate

in project development—as per Nepal's Local Self Governance Act, which specifies this as a requirement.²⁴ The leadership of Meena Khanal as joint secretary and gender focal point for Nepal's Ministry of Environment during the UNFCCC process, and her role in ensuring that gender considerations emerged in the final text from the 2010 conference, demonstrated the capacity of female leadership to drive substantive global policy change.

Of all the South Asian countries in the WRI, Nepal is the only country where gender has been “mainstreamed” into its climate change decision-making, and which acknowledges women as a vulnerable group. But where Nepal falls down is in the absence of targets for women's involvement within its NAPA: of nine specified projects, none is gender-specific.²⁵

Still, the active involvement of women is being encouraged by the inclusion of women's groups as implementing units at the grassroots level, says Manjeet Dhakal, LDC climate policy analyst at Climate Analytics. “It is not satisfactory, but it is moving in the right direction.”

²⁰ “Tsunami death toll”, CNN.com, February 22, 2005. Accessed September 3rd, 2014.

²¹ “In action: Women-led emergency preparedness, response & resilience.” Document, ActionAid Bangladesh, 2014.

²² Ahmed, Mahfuz; Suphachalasai, Suphachol. “Assessing the Costs of Climate Change and Adaptation in South Asia.” ADB, 2014.

²³ Nepal established thematic working groups on each of the key sectors, (i.e. agriculture and food security, forests, water, energy, health and urbanisation) and considered the gender implications of climate change across each of these.

²⁴ Mainlay, Jony and Su Fei Tan, “Mainstreaming gender and climate change in Nepal: Climate Change Working Paper No. 2”. IIED, November 2012.

²⁵ Ibid.

wealth are exposed to damage, placing additional fiscal pressure on governments in the face of disruptive events.

1.3 Recognising women's greater vulnerability—and capacity to lead disaster resilience efforts

The experience of women after disasters in the region shows that social customs can mean they are more adversely affected than men. In addition to the examples related to the 2004 tsunami cited above, during the 2010 floods in Pakistan, anecdotal evidence emerged of women being overlooked in the distribution of relief and unable to access distribution points as they practiced *purdah* (female seclusion), which restricted their freedom of movement outside their homes.²⁶

At the same time, the gendered division of labour, such as the socially assigned responsibility for women to act as domestic carers, tends to impose specific responsibilities on women in the aftermath of disasters. A heightened perception of community-level risk, and the capacities developed by women caregivers to protect and raise dependants, mean that they are already taking on a significant "invisible role" in caring for those most affected by a shock, nursing the sick and infirm and sourcing water, fuel, food and shelter. For instance, following the Gujarat earthquakes in 2001, school dropout rates for girls shot up and the number of female-headed households rose, as women and girls stayed at home to care for the injured and infirm.²⁷ In addition, social expectations mean that women who are not directly or immediately affected by the disaster may nonetheless bear the most responsibility for taking in and caring for the displaced.

Moreover, in societies where violence against women (VAW) is a daily threat, women can be

rendered more vulnerable in the onset and aftermath of a disaster, and less inclined in some societies to report or receive treatment due to the associated social stigma and a lack of awareness of their rights. "The powerful images from the 2004 tsunami of a woman unconscious in the sea with jewellery being taken from her brought home to the population the inherent vulnerability of women in disasters," notes Dr Kottegoda of Asia-Pacific Women's Watch. "And even today, given the prevailing high levels of both domestic and public violence against women in South Asia, one would not be surprised by the increased vulnerability of women to violence in disaster situations."

Customary attitudes and practices related to women in the region also have implications for their experience of disasters.²⁸ South Asia is one of the least gender-equal regions on earth, as shown by its performance on global indexes such as the United Nations' Gender Index (see Figure 2). At a more structural level, continued inequality of access to education, healthcare, finances and productive assets compared to men is detrimental to women's capacity to be able to survive, recover and rebuild from a disruptive event.

"The socio-cultural context means that women can be subject to more vulnerability and inequality than men, depending on that society," says Christophe Béné, research fellow in the Vulnerability and Poverty Reduction Team at the Institute of Development Studies (IDS). "This applies equally to what happens in the minutes and hours following a disaster. If a woman is supposed to take care of the elderly, livestock, house, food and other assets, she is going to stay behind."

Madhavi Malalgoda Ariyabandu, Regional Coordinator for Central Asia and South Caucasus of the United Nations Office for Disaster Risk Reduction (UNISDR), concurs. "Considering how gender relations are constructed in some

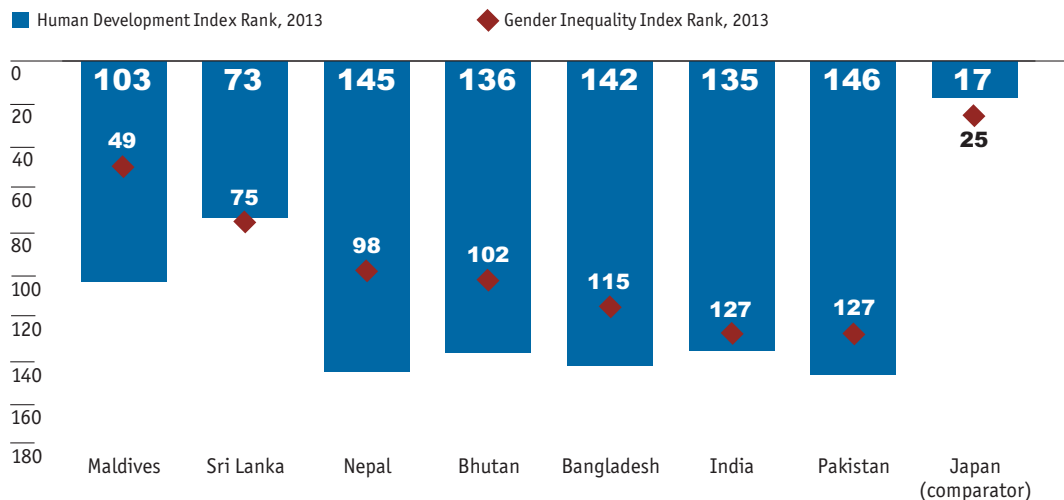
²⁶ Summary report: Rapid gender needs assessment of flood-affected communities. Pakistan floods 2010. UNIFEM, September 2010.

²⁷ "Disasters and Social Vulnerabilities in Asia and the Pacific." UNISDR, June 2012.

²⁸ A Background Paper on gender inclusion in "HFA2: Women as a force in resilience building, gender equality in disaster risk reduction." UNISDR, April 2014.

Figure 2

Human Development and Gender Inequality Indices, South Asia and Japan, 2013



Notes: Ranking of 187 countries. The Gender Inequality Index is a composite measure reflecting inequality in achievement between women and men in three dimensions: reproductive health, empowerment and the labour market. It is one component of the Human Development Index; a statistical tool used to measure a country's overall achievement in its social and economic dimensions.

Source: United Nations

patriarchal South Asian societies, disasters are just one situation that highlights how gender issues play out in a development context," she says. "It is just accentuated."

Yet what has also emerged from the 2004 tsunami and other major disasters to have afflicted South Asia in the past decade is evidence of women as agents in preparing for and responding to disruptive events such as earthquakes, floods, cyclones, building collapses and fires. Their gender-assigned roles, for instance as primary carers, have imparted a capacity for community organisation and a keen perception for local-level risk.²⁹

"Women have an inherent capacity for risk management which has not been capitalised upon," says Santosh Kumar, director of the South Asian Association for Regional Cooperation Disaster Management Centre (SDMC). "Experience from disasters indicates that the way women handle risk is different from men. They have different qualities to bring to disaster planning that have been ignored in the name of vulnerability."

Consequently, emphasis should not be placed solely on women's greater vulnerability. The intimate "front-line" knowledge that women have of their local environment suggests enormous potential for them to be leading agents in disaster-planning and preparedness in communities, and to play a significant role in bolstering resilience, should they be empowered to do so. Women in South Asia also have proven skills in community mobilisation, as reflected by the proliferation of self-help groups and networks across the region—there are some 3m registered in India alone.³⁰ Women-specific social networks focused on health and environmental issues have been used to coordinate community-level DRR and recovery efforts as far back as during the 1996 Pakistan floods, where these informal arrangements were central to the rapid distribution of food aid and reconstruction of housing.³¹

Yet women in South Asia face a number of socio-cultural and economic barriers to exercising this agency and leadership. The examples above are notable because of their rarity; more

²⁹ Ariyabandu, Madhavi, "Women: The Risk Managers in Natural Disasters." *Voice of Women* 6.1, 2003

³⁰ Pingali, Prabhu, "Women's groups as conduits towards resilient communities," in *Farming First*, April 30 2014.

³¹ Bari, Farzana, "Gender, disaster and disempowerment: A case study from Pakistan," Pp. 125-132 in Elaine Enarson and Betty Heam Marrow (eds), *The Gendered Terrain of Disaster*, 1998.

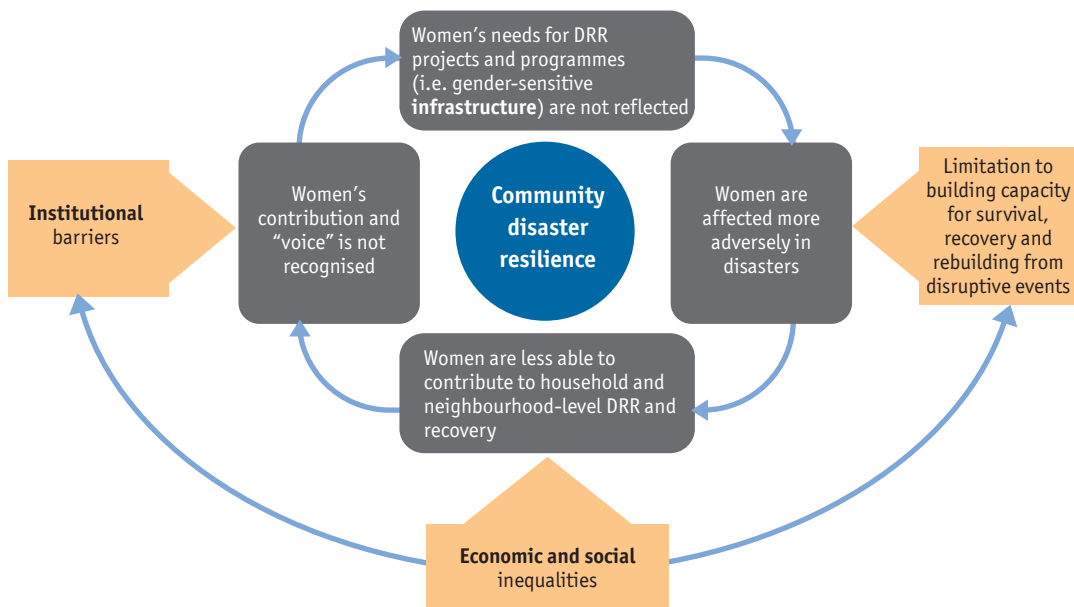
commonly women are not included in disaster risk reduction or resilience planning. This perpetuates a vicious circle where their needs are not incorporated into governments' disaster management strategies, meaning that resulting response and reconstruction efforts tend to overlook the specific vulnerabilities and needs of women when disasters strike (Figure 3).

In spite of high levels of gender inequality—where women are not afforded the same rights as men—in many societies, anecdotal

evidence indicates that women in South Asia are an important human resource in disaster preparedness and response at the grassroots level, where a number of practices are developing to optimise their capabilities. In-depth interviews with practitioners suggest that through such initiatives, much can be done to improve the disaster resilience of communities. A corollary is that in leading such initiatives, women can also help drive improved gender relations in their households and communities.

Figure 3

Impediments to women's disaster resilience building



Note to Figure 3: In many countries across South Asia today, the daily socio-economic inequality experienced by women (for example, availability of credit, access to healthcare, vulnerability to violence) can hinder their capacity for survival and the ability to recover after disruptive events. At the same time, inequality of opportunity to participate in institutions for DRR planning limits the contribution that they can make to resilience building, and impedes their involvement in decision-making and planning. This creates a “vicious circle” for South Asian women who are not only more adversely affected by disasters as a result, but also precluded from contributing to building up the resilience of their communities.

Source: The Economist Intelligence Unit

2

Assessing women's disaster resilience in South Asia: Approach and limitations of the WRI

2.1 What is the WRI? Why was it developed?

ActionAid commissioned the EIU to develop the South Asia **Women's Resilience Index (WRI)** to measure the disaster resilience of a selection of South Asian countries in the event of a disruptive shock, with a specific focus on the experiences of women. It assesses the capacity of countries in South Asia to withstand and recover from disasters, and the level of participation by women in their national resilience-building efforts. The WRI was conceived to collate evidence and cast a spotlight on the extent to which disaster risk reduction (DRR) and recovery strategies and policies in South Asia can be considered to be gender-sensitive, and thereby engage governments, development agencies, civil society representatives and interested private-sector stakeholders in a conversation on these issues. The index can be repeated and expanded upon in future, allowing for countries to track progress over time and compare their performance against a wider set of geographies.

2.2 Why South Asia? Why include Japan?

The countries included in the index have been chosen because they comprise the core states in South Asia, which is one of the least-gender-equitable regions in the world today,³² and which therefore presents a natural starting point for developing an index of this nature.

The region is also one in which ActionAid and the Australian Department of Foreign Affairs—which commissioned this research initiative—have active DRR programmes.

Alongside **Bangladesh, Bhutan, India, Nepal, the Maldives, Pakistan and Sri Lanka, Japan** has been included as a benchmark country to contextualise the South Asian focus. The experience of Japan as a high-income, industrialised country within Asia-Pacific is very different from that of its South Asian counterparts: most obviously, it has greater economic resources to draw upon in disaster response, and to invest in DRR planning. Yet, similar to some of the South Asian countries in this study, Japan is susceptible to large natural disasters, and DRR and disaster response have long been a major policy focus. As the findings indicate, although Japan achieves the top scores in this index, there emerge a number of areas for improvement to bolster its resilience—the most pertinent of which relate to gender. While the developing countries of South Asia cannot expect to emulate Japan in all regards, it serves as a useful comparator against which to evaluate their own strengths and weaknesses.

2.3 What does the WRI measure?

The index draws upon a range of indicators in four categories—**Economic, Infrastructure, Institutional and Social**—to assess the capacity of a country to proactively adapt to and recover from quick-onset events that fall

³² As reflected in the performance of South Asian countries in studies such as the Gender Inequality Index (UNDP, 2014), the Gender Gap Report (World Economic Forum, 2013) and Women's Economic Opportunity Index (EIU, 2012).

outside the range of those that are normal or anticipated (i.e. disasters). It assesses the capacity of countries to withstand and recover from disasters, and the level of participation by women in their national resilience-building efforts.

Resilience, broadly defined, is concerned with a range of interconnected and evolving risks. The OECD sees it as building capacity for people to make optimal choices about the risks they face in general and minimising vulnerability and those impacts that undermine wellbeing.³³ The WRI takes a slightly narrower view by focusing on the institutions, processes and capacities that specifically deal with unanticipated, quick-onset events.

The types of disaster that are covered by this definition may include national calamities such as cyclones, earthquakes and building collapses, as well as more localised incidents (i.e. local-area flash flooding, landslides) that can sometimes affect communities just as severely. A disaster may also take the form of an unanticipated event of an economic nature that might hit the ability of households to generate income—such as crop failure—with immediate implications for livelihoods.

2.4 Why is the WRI focused on quick-onset disasters? How are climate change and violence relevant?

The gradual evolution associated with slow-onset events (e.g. incidences of drought and soil salination attributable to climate change)³⁴ relate to a different set of resources and capacities at the national level, and they are not a central focus of the index. However, there is a clear relationship between climate change and a higher frequency of rapid-onset incidents (e.g. rising intensity of cyclones and heat wave events in the context of South Asia)³⁵, meaning that climate change adaptation (CCA) and

disaster management activities often converge (see *Box 2: Climate change adaptation through a gender lens*). In this sense, the WRI can offer insights to practitioners in this area.

Similarly, the onset of conflicts relates to a different set of dynamics, actors and types of response. While civil wars and communal conflicts are therefore not considered in this index as “disruptive events” in themselves, the threat and effects of physical and sexual violence—daily vulnerabilities faced by women in some contexts—inevitably have a bearing on an individual’s or a community’s ability to be resilient. Therefore, indicators on violence are incorporated into the WRI as an important dimension in considering a country’s capacity to withstand and recover from disasters.

2.5 What underpins the WRI?

The categories—and the underlying indicators—represent four crucial pillars of resilience to disruptive shocks, and a country’s capacity to prepare and respond to such events. Availability of **Economic** resources makes it easier for a country to prepare and respond to disasters, while access to credit and employment opportunities for women are vital for their ability to absorb shocks and recover from them. Reliable **Infrastructure** ensures communities can mitigate the initial effects of a disaster, minimises structural damage and allows for evacuation. Thereafter, good infrastructure enables faster recovery and regeneration. The legal framework and the capacity of public **Institutions** to plan for and respond to disasters are pertinent, as is the effectiveness of government and the ability for women to participate in and lead DRR and planning activities. Property rights and the institutional response to violence in society, meanwhile, can determine a woman’s experience in preparing for, in the onset and in the aftermath of a disaster. Finally, the **Social** category measures

³³ Mitchell, Andrew, “Risk and Resilience: From Good Idea to Good Practice.” WP13/2013, OECD, December 2013.

³⁴ “Slow onset events.” Technical Paper. United Nations Framework Convention on Climate Change. FCCC/TP.2010/7, November 2012.

³⁵ Sivakumar, Mannava V.K., and Robert Stefanski, “Climate Change in South Asia.” Chapter 2 from; *Climate Change and Food Security in South Asia*. By R. Lal et al. (eds). Dordrecht: Springer, 2011.

a country's informal capacity to respond to disaster: each of the underlying indicators in this category may not align specifically to mitigating risk, but may have corollary effects on disaster resilience. For women, their access to education, health and freedom to be mobile are particularly relevant.

2.6 In what way is the WRI gender-sensitive?

Developed with inputs from an expert panel,³⁶ approximately 40% of the 68 indicators in the WRI are gender-sensitive; that is, they use gender-disaggregated data to reflect the different requirements of women in preparing for, mitigating and recovering from a shock.

The WRI therefore reflects the extent to which the needs of women are being considered in national disaster resilience-building efforts.

Not all indicators are women-sensitive as a number of those important to a country's disaster resilience (e.g. adherence to building codes, quality of power) are applicable to the entire population. Also, in some cases, gender-disaggregated or gender-sensitive data are simply not available.

2.7 Limitations of the WRI

The geographical scope of the index is limited to South Asia, though it is envisaged that other countries and regions could be incorporated into the WRI over time.

The experience of sub-national institutions and communities cannot be fully reflected in this index, which for the most part uses country-level data. However, the WRI does paint a picture of the wider operating environment in which local-level actors plan for and respond to disasters. The strengths and weaknesses that emerge for each country, therefore, will have implications right down to the grassroots level. Similarly, differences that emerge between the urban and rural regions of South Asian countries cannot be captured in an index of this nature, though

the importance of differences inherent to urban versus rural environments—and the implications for women in each type of community—should not be underplayed.

The scores for the WRI reported in this paper are based on the weightings for each indicator, subcategory and category assigned by the EIU at the conclusion of its research, after due consideration of the evidence and expert opinions given throughout the research process. However, these weightings are not necessarily a final judgment on relative indicator importance. Section 2.8 explains how users may alter weightings in the MS Excel model that is available for download.

2.8 How should the WRI be used?

The WRI, constructed with the support of experts with decades of experience in DRR and women's issues, is a tool. It is meant to identify issues at a national level, and to serve as a starting point for dialogue and analysis. It should be used in tandem with the many other excellent studies of DRR, resilience and related issues.

The headline results of the WRI are presented in this paper and in an accompanying infographic, while detailed country-by-country analysis of the results is available in Appendix 1 of this paper.

A version of the WRI workbook in MS Excel is available for download online at www.economistinsights.com. This model includes a range of analytical tools: users can examine the strengths and weaknesses of a particular country through detailed profiles in the model, while any two countries may be compared directly and individual indicators can be isolated and examined. Where the EIU has created new datasets through internal, qualitative scoring, users can see the justification for the scoring in the commentary section of the model. Users may also change the weights assigned to each indicator, subcategory and category.

³⁶ See footnote 2, and Appendix 3 for a list of participants of the ActionAid workshop. Among other factors, the workshop considered the findings of separate focus groups discussions of women and men convened by ActionAid in local communities where they have worked in India, Nepal and Pakistan.

While the WRI presents a snapshot of current conditions for the participation of South Asian women in disaster resilience and is therefore a unique and informative tool for policymakers, the index in itself cannot be considered a conclusive basis for policy recommendations. It is expected that a benchmark ranking of this nature will allow

for a discussion of a country's strengths and weaknesses, and can provide guidance on areas where country and regional policymakers should focus and collate further evidence to formulate plans for action. Rankings and results in future editions of the WRI, as and when the index is repeated, will duly reflect such efforts.

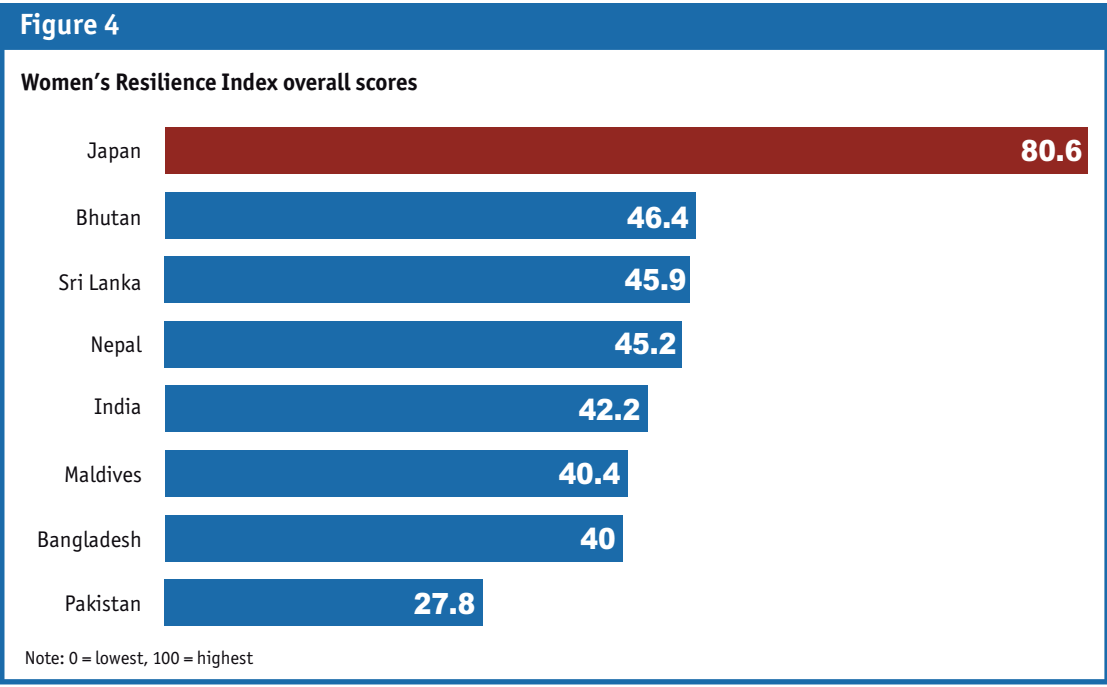
3 The Women's Resilience Index: Key findings for South Asia

3.1 Overall scores

Japan, as the only high-income country in the index and one that has taken many measures to increase its resilience against disasters, attains the highest overall score (80.6/100). Japan ranks top across all four categories of the index—**Economic, Infrastructure, Institutional and Social**—and serves as an upper outlier by which to contextualise the results for the developing countries of South Asia, the main focus of this research. **Bhutan, Sri Lanka, Nepal, India, the Maldives and Bangladesh** achieve an overall score in a relatively narrow band of 40-46.4, reflecting varying strengths and weaknesses of countries

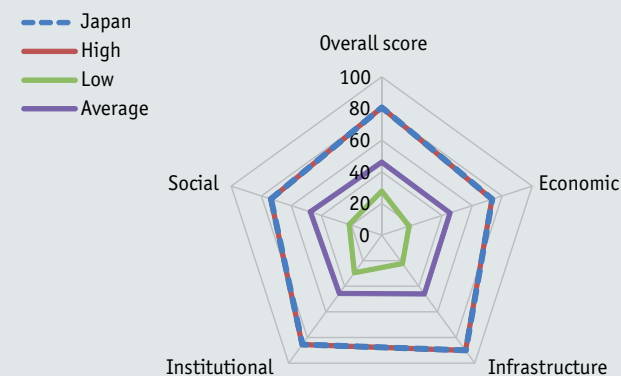
across the four evenly weighted index categories. **Pakistan** emerges as a lower outlier in the index, with an overall score of 27.8 (Figure 4).

Such results invite a closer examination of the factors driving the scores across categories, to inform a better understanding of the areas on which policymakers and stakeholders can focus to improve women's prospects for building resilience to disruptive events. The remainder of this section therefore examines the results of the four categories of which the WRI consists, and a selection of key indicators that inform the scores in each category.



Box 3: A perspective from Japan: Contextualising women's disaster resilience in South Asia

Japan	Score/100	Rank/8
Overall score	80.6	1
Economic	73.2	1
Infrastructure	90.1	1
Institutional	85.5	1
Social	73.7	1



Japan's vulnerability to earthquakes and other hazards means that it has a wealth of experience in planning for and responding to disruptive events. For this reason, it serves as a useful comparator against which to gauge the experiences of the South Asian countries in the WRI, which have a similar job of improving DRR but must do so facing much more severe resource constraints. While South Asian emerging economies are in no position to match Japan's investment commitments, the WRI indicates that there are challenges common to policymakers across the board. Japan's world-class infrastructure and DRR-related institutions boost its resilience to shocks, but the needs of women are less well-accounted for in the economic and social spheres.

Economic category: Japan's developed economy and sophisticated financial markets mean that women enjoy a favourable economic environment with unhindered access to credit and financial instruments—96.8% of women have accounts at financial institutions, according to the World Bank. Women are also protected from discrimination in the workplace by legal provisions such as the Equal Employment Opportunities Act, though wage inequality remains a feature of Japan's labour environment.

Infrastructure category: Japan's infrastructure and technology are best-in-class: it is home to one of the world's most sophisticated disaster early-warning systems, while its land-use planning system is rooted in a long history of comprehensive development planning. Most recently, the

2011 earthquake and tsunami led to further assessments of areas for development, and building codes are among the most stringent internationally.

Institutional category: Japan's vulnerability to disruptive events means its institutional framework for DRR-related activities is well developed. Drills are a common part of Japanese life, while its emergency response, military and police forces all have effective and dedicated disaster response units.

The country's record on trans-boundary risk assessment systems and agreements is exemplary, with numerous examples of international and regional cooperation for disaster monitoring and risk assessment. The 1961 Disaster Countermeasures Basic Act and the creation of a Central Disaster Prevention Council were the basis of a strong focal point for cooperation in DRR. Though the Act does not reflect a gender perspective, the 2011 Disaster Management Basic Plan places a strong emphasis on the specific vulnerabilities of women and the need for their voices to be reflected in DRR planning.

Women in DRR policy and planning: In practice, female leadership is not mandatory or highly visible in Japanese DRR decision-making bodies. Women are a minority as members of the Central Disaster Management Council and most Regional Disaster Management Councils, and there was no female representation in six out of eight of these in 2012. In considering the needs of female internally displaced persons (IDPs), the 2011 Disaster Management Basic Plan requires the participation of women in running emergency shelters, consideration of separate changing facilities and toilets, and dedicated security provisions for women. The Plan also calls for the participation of women in disaster-preparedness training. Women are guaranteed equality of access to common property and equality of property rights under Japan's constitution.

Social category: Japan is a signatory to the Optional Protocol to the Convention for the Elimination of Discrimination Against Women (CEDAW), yet women live and work in an environment governed by patriarchal values. This is most evident in a male-dominated workforce and weak penalties imposed on organisations for wage discrimination. Legislation to foster "family-friendly" policies in the workplace has facilitated the participation of women in the labour force, who make up 48.5% of workers. Still, the "glass ceiling" remains intact in Japan, and women are offered few paths of corporate advancement. Attitudes are shifting of late, with Prime Minister Shinzo Abe declaring his personal commitment to changing the status quo: he has set a goal of raising the ratio of female managers in the workforce to 30% by 2020.

3.2 Economic category scores

A strong economic environment makes it easier for a country to prepare and respond to disasters. This category therefore considers the overall economic strength of a country and the availability of personal finance and labour market opportunities for women. Key indicators in this category measure the levels of poverty in a society, what funding is made available for disaster management, and whether women have access to financial instruments and employment.

All South Asian countries in the index face resource constraints for DRR-related activities, which has implications for their ability to invest in infrastructure for disaster mitigation and recovery. This is illustrated by the stark comparison with Japan's per-capita relief budget: at US\$293 per person, this is over 200 times the amount of government relief available for each Indian citizen.³⁷ The Indian government has attempted to address this shortfall by mandating that up to 10% of all programmes

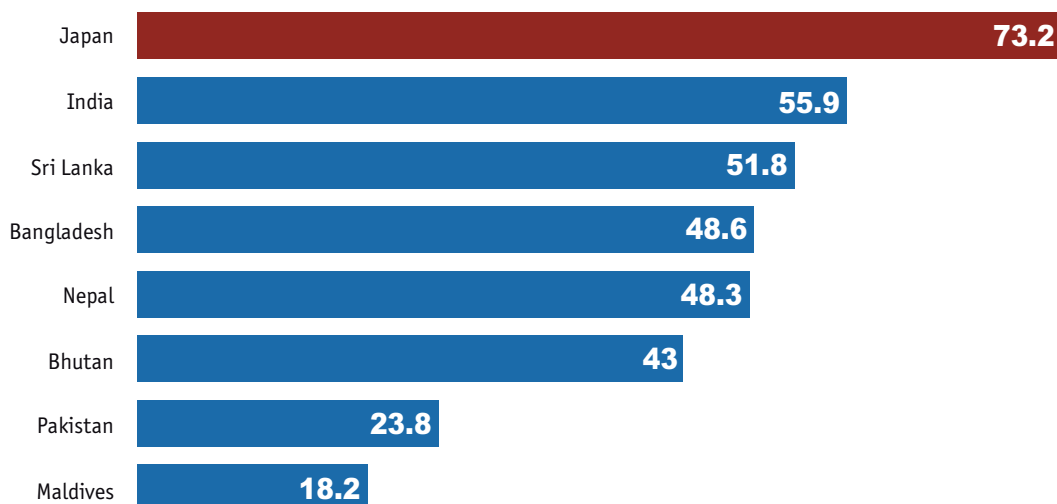
and project grants financed by the public sector can be spent on DRR- and CCA-related activities, notes Vinod Menon, independent consultant and former member of the National Disaster Management Authority in India.

The Maldives, Bhutan and Sri Lanka are wealthier on a GDP-per-capita basis than the more populous India, Pakistan and Bangladesh, and have a lower poverty headcount. But this does not necessarily correlate with the availability of government funding for disaster relief. Of the South Asian countries in the index, this is highest in Bangladesh at US\$5.3 per capita,³⁸ perhaps reflecting a high priority placed on DRR by national government in face of the country's exposure to cyclones and flooding (and the fact that it has a stand-alone Ministry of Disaster Management and Relief).

For women, the availability of finance and opportunities to generate income are crucial to their resilience in the face of disruptive shocks—particularly in light of their invisible (typically unpaid) domestic work and small-scale farming.³⁹ Access to credit is important in both mitigating the impact of such events,

Figure 5

Women's Resilience Index Economic category scores



Note: 0 = lowest, 100 = highest

³⁷ Indicator 1.1.4, Government funding for disaster relief, per person. Government sources. WRI, 2014.

³⁸ Ibid.

³⁹ See Box 5: *The disaster experiences of men and women in Uttarkhand, India* for an example of invisible unpaid work by women related to their household duties and small-scale agriculture, and the implications of a disaster.

Box 4: Driving grassroots demand for resilience building: The Community Resilience Fund

Most decision-making for DRR budgets remains at the national level in South Asia, though this varies across countries depending on their local governance structures. For example, while rural village councils (*panchayats*) and urban municipalities in India have some discretion for DRR-related spending, there is no local, semi-autonomous authority to speak of in Nepal.

Recognising an absence of incentives for disaster planning and resilience building to be prioritised at the grassroots level, the Huairou Commission and civil society group GROOTS International have sponsored the Community Resilience Fund (CRF). This decentralised fund provides grants for projects and partnerships that advance DRR and CCA priorities of disaster-prone communities and build their resilience.

"It is designed to distribute money down to grassroots groups, so that they can address their own priorities and drive demand from below," says Suranjana Gupta, senior advisor for community resilience at the Huairou Commission. One example of this is a revolving fund established by the Sakhi Women's Federation in India to support women vegetable farmers in transitioning to adaptive

farming. A grassroots-level CRF committee screens applications, disburses loans and monitors borrowers to ensure that funds are being used as proposed.

To receive a grant, groups must identify specific risks and vulnerabilities at the community level and make plans and implement practices that address local needs. Funding is directly channelled to women's organisations that have deployed the financing in a number of ways. "Some have used the funds to organise themselves, to promote leadership and to improve their dialogue with local governments," notes Ms Gupta.

In Bangladesh, a programme was set up to train 20 women leaders from savings groups in Bhola Bosti, an informal settlement in Dhaka, who went on to "map" risks and vulnerabilities from floods. The women identified waterlogging and poor sanitation as problems that were exacerbated during flooding, spreading water-borne diseases and malaria. These findings were used for discussions with municipal officials to call for subsidies and training programmes for DRR in the area.

and for facilitating recovery and rebuilding. "When you ask women what they want in a disaster situation, it usually boils down to money," says Hadia Nusrat, interagency gender equality advisor for humanitarian community in Pakistan at the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and UN Women. "The immediate concern is less about say, infrastructure, as women may have no role or influence in this. But liquidity is so important. Ensuring that they have at least financial power is the first step towards resilience."

On this front, **India (55.9)** leads the category with a range of personal financing options

available to women and a more progressive labour environment than its South Asian counterparts: a National Employment Guarantee Scheme recently passed into law requires one in three jobs to go to women and stipulates equality of pay. Despite having the highest GDP per capita in South Asia, the **Maldives (18.2)** receives the lowest score in this category, in light of a scarcity of options for women to access credit or financial instruments. Female unemployment stood at 24% in 2006 (the latest available figure),⁴⁰ but there have been few initiatives to extend social protection or income-generation opportunities for women. And though the Benazir Income Support Programme extends to some 18%

⁴⁰ Indicator 1.3.2, Female unemployment rate. Government sources. WRI, 2014.

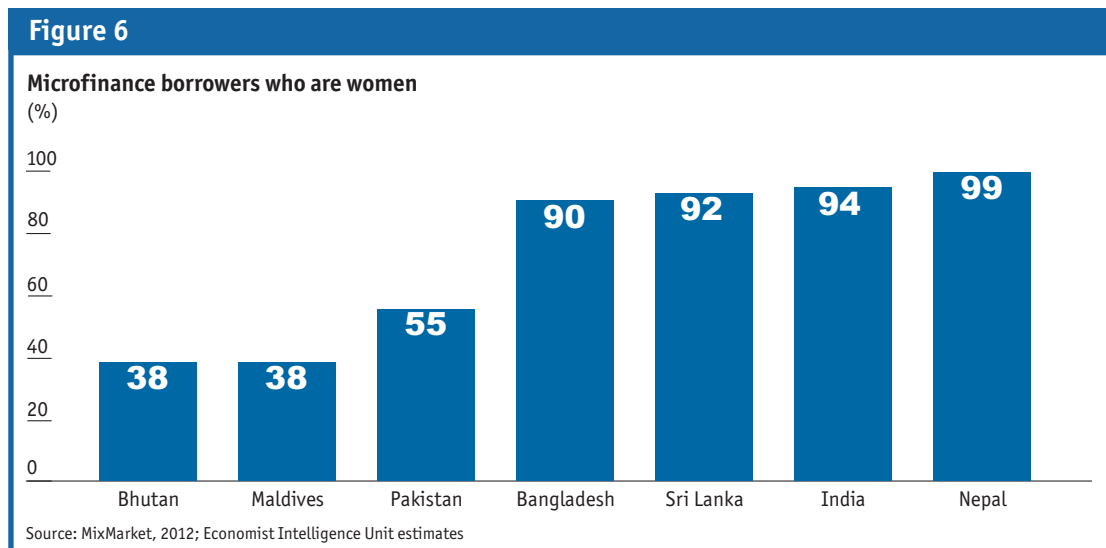
of the population, women are also highly restricted in their access to formal finance in **Pakistan (23.8)**: just 1.9% of loans at financial institutions were made to women in 2012-13, according to the World Bank.⁴¹

The reality is that most women in a low-income, rural setting are unlikely to have access to loans and bank accounts at formal financial institutions. Local money lenders remain the only option for many, though the wide proliferation of microfinance programmes in South Asia is providing women with an alternative means of accessing credit. At the same time, there is evidence that intra-household relations could have some bearing on the use of credit, for which domestic violence can pose a significant risk in some circumstances.⁴²

"Poor, grassroots women do not belong to any group, making it very difficult for them to get access to resources," says Lajana Manandhar,

executive director at Lumanti, a Nepalese civil society organisation. Demand for microfinance in Nepal is driven almost entirely by female borrowers (who make up 99% of all such borrowers; Figure 6), as is the case in India, Sri Lanka and Bangladesh. In comparison, only 55% of Pakistani microfinance borrowers are women, and they are the minority in Bhutan and the Maldives (38% each).⁴³ This indicates not only limited access to a viable source of credit, but that women do not necessarily enjoy the benefits of mobilisation that have been observed as a result of microcredit schemes in other countries.

"When women are not organised, they are isolated and cannot do anything," observes Ms Manandhar. Lumanti has established saving schemes for women slum dwellers, who subsequently organised themselves to call for settlement rights. "Women get access to cheaper credit, and get to know other women like themselves."



⁴¹ Indicator 1.2.4, Loans at financial institutions. World Bank Global Financial Inclusion Database. WRI, 2014.

⁴² Balasubramanian, Sujata, "Why Micro-Credit May Leave Women Worse Off: Non-Cooperative Bargaining and the Marriage Game in South Asia." *The Journal of Development Studies*, 49:5, 2013.

⁴³ Indicator 1.2.1, Microfinance: Women Borrowers. MixMarket 2012. WRI, 2014.

Box 5: The disaster experiences of men and women in Uttarkhand, India

From January to March 2014, ActionAid conducted a number of focus groups in India, Nepal and Pakistan to better understand the extent to which the impact of disasters differs at the community level for men and women. Across urban and rural settings, male and female focus groups discussed their experiences with respect to quick-onset disasters that have struck their communities.

One of the locations selected was the Chamoli District in the mountainous terrain of Uttarkhand, which is prone to earthquakes, landslides and flash floods—most recently in June 2013, when the rural village of Salna was badly affected by flooding. Focus group discussions there and in Dodli, a semi-urban village that is known as a catchment area for post-disaster migration, indicated that the experiences and perceptions of those affected by disasters vary depending on their sex.

The financial and economic implications of disasters vary in particular. Men tend to face problems getting employment in trade or labour, while women typically lose sources of income from selling farm products such as fruits and vegetables due to the destruction of crops. In addition, according to the women participants, their work in rearing livestock is

made much more difficult by the destruction of fields and pathways to forest pastures. In the case of semi-urban Dodli, women had to travel further to fetch wood and grass when the roads were damaged. Disasters typically bring a greater burden of work at home for women in caring for dependants, especially as schools tend to be closed.

Women also face challenges in acquiring and preparing food during disasters, as observed by the male focus group in Dodli. "During the flood, women started eating two rotis [bread] instead of four and faced a lot of difficulty in cooking since houses were filled with water. Gas was not available so they had to cook food on chulhas [biomass stoves]," group members said.

Women themselves were more daunted by the need to escape when a disaster hit. "Migrating is difficult because it is not possible to carry children, animals and household items all at once at the time of calamity," focus group participants said. Women in rural Salnar also noted the need for additional support when the men of the household were away working when a disaster hits. "We have to take full responsibility for the family, and ask for help from relatives and neighbours."

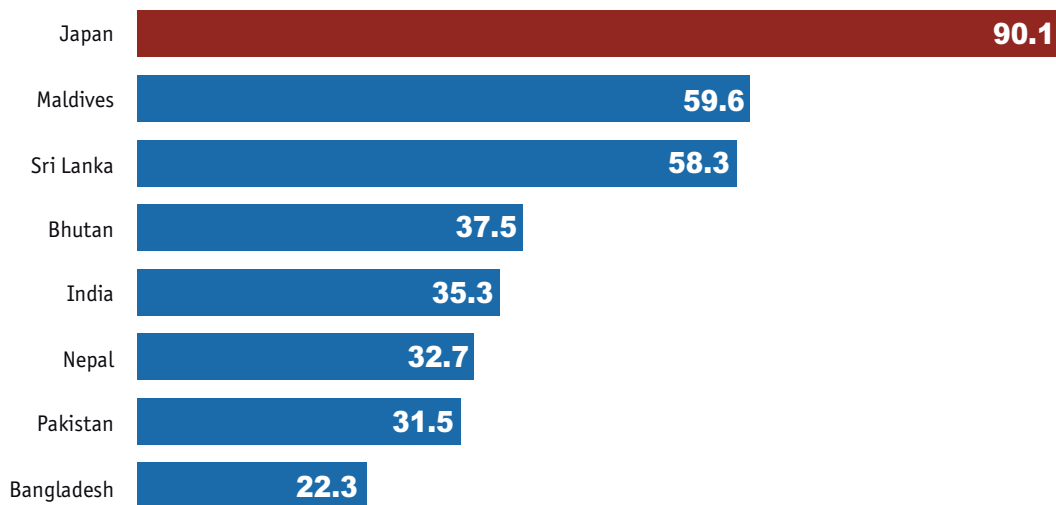
3.3 Infrastructure category scores

Reliable infrastructure ensures communities can mitigate the initial effects of a disaster, minimise structural damage and allow for evacuation. Thereafter, good infrastructure enables faster recovery and regeneration. Key indicators in this category include those that measure the extensiveness and reliability of a country's core infrastructure (i.e. transport, power and communications); whether they

have a functioning early warning system (EWS); whether they adhere to land-use regulations and building codes; how extensive their environmental protections are; and whether their populations have access to clean water and sanitation facilities. This is the least gender-sensitive category in the index: a paucity of gender-disaggregated data precludes an assessment of access and availability of essential infrastructure for women, indicating areas for future attention in monitoring and evaluation.

Figure 7

Women's Resilience Index Infrastructure category scores



Note: 0 = lowest, 100 = highest

The Maldives (59.6) and **Sri Lanka** (58.3) perform well by regional standards on essential infrastructure for resilience—in part facilitated by their smaller populations, which pose less of a spatial challenge than for those countries with large populations and wider geographical areas. The penetration rates of communications networks are high in both countries and the vast majority of the population have access to a television or mobile phone. **Bangladesh** (22.3) is a lower outlier in this category given issues of quality and access to its power, transport and sanitation infrastructure and low technology penetration rates—even for traditional communication formats such as radio (only 8.9% of the population have access).⁴⁴

Few countries perform well on aspects related to environmental performance, which has implications for the resilience of rural women to disruptive shocks. Fertile soil, diverse forests, clean water sources and healthy mangroves all contribute to stable food systems, productive livelihoods and safer surroundings that support the ability of women and communities to

weather disasters of various magnitudes.⁴⁵ It is notable that a significant proportion of terrestrial and marine areas are protected in Bhutan (16.1%) and Sri Lanka (14.5%), however, putting these countries on a par with Japan (14.9%) in this respect.⁴⁶

Of significance to resilience is the availability of an effective EWS. Despite lacking the advantages enjoyed by Japan of high technology penetration rates and government research and development (R&D) and investment, most South Asian countries in the index have upgraded their EWS in recent years—in part driven by the international response to the 2004 Indian Ocean tsunami. Many of these improvements have been driven from the grassroots: at the local level, NGOs and volunteers play an important role in disseminating information, using basic tools such as loudspeakers. The EWS of the smaller, less susceptible nation of Bhutan is the least robust in the index as it consists only of local systems and is not yet integrated into a national—much less a trans-boundary—EWS.⁴⁷

⁴⁴ Indicator 2.3.2, Penetration of radio. National sources. WRI, 2014.

⁴⁵ “We know what we need: South Asian women speak out on climate change adaptation.” IDS for ActionAid, November 2007.

⁴⁶ Indicator 2.5.4, Protection of Terrestrial and Marine Areas. Yale University and Maldives Environmental Protection Agency. WRI, 2014.

⁴⁷ Indicator 2.3.4, Availability of an effective early warning system. EIU qualitative assessment. WRI, 2014.

Data are not readily available on the extent to which EWS are designed with the needs of vulnerable groups in mind, though evidence is emerging from South Asia of programmes where women are shaping the execution of EWS activities in their communities. This was the case in the flood-prone village of Kamra in Pakistan's Punjab province. The village has an EWS that is managed by the community, with representatives collecting information on rainfall and water levels from officials and conveying this to residents via information boards and mosque loudspeakers. To ensure that they were receiving crucial information on disaster risk, the women of Kamra established their own flood preparedness group, with a view to addressing issues specific to living in purdah (female seclusion) in preparing for and responding to a flood. Working with the wider community to disseminate available information to women, the group also drove initiatives to mitigate women-specific risks during floods. For example, the group mobilised resources to construct a women-only community centre, which could be used as a safe shelter and also house a health clinic.⁴⁸

⁴⁸ Ariyabandu, Madhavi, "From flood risk to flood preparedness: Women's group in the village of Kamra, Punjab, Pakistan." Briefing note compiled by UNISDR.

⁴⁹ Indicator 2.6.,1 Access to sanitation. World Bank. WRI, 2014.

⁵⁰ Watson JT, Gayer M, Connolly MA. "Epidemics after natural disasters", *Emerging Infectious Diseases*, January 2007.

⁵¹ "Lessons learned in WASH response during rural flood emergencies". The Global WASH Learning Project, Global WASH Cluster, UNICEF, 2009.

⁵² Indicator 3.4.2, Consideration of the needs of female IDPs. EIU qualitative assessment. WRI, 2014.

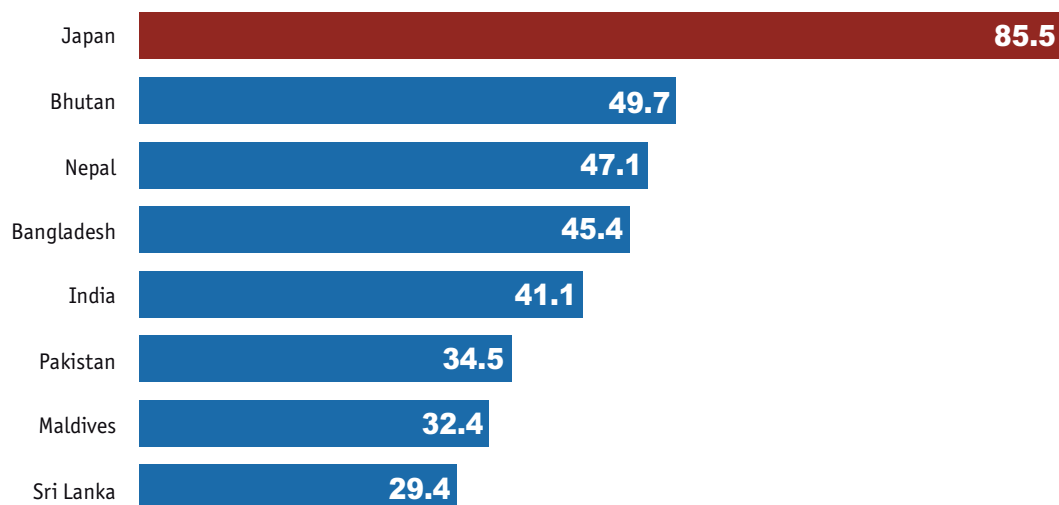
This has implications for building households' resilience to withstand shocks in the first place, and also for their ability to cope during the recovery period. For instance, women face particular challenges related to menstrual hygiene that are not always accounted for in the design of shelter facilities and supplies. This was evident during the 2008 Bihar floods in India, when female internally displaced persons (IDPs) lacked access to sanitary towels and private spaces for washing, or disposal facilities at shelters, with direct implications for the overall reproductive health of the population.⁵¹ Of the South Asian countries in the WRI, only in India and Pakistan does central government guidance encourage the design of separate sanitation facilities for men and women.⁵²

3.4 Institutional category scores

The degree and quality of decentralisation and coordination are two important factors to judge the effectiveness of DRR-related organisations, processes and procedures. The extent to which public institutions account for the needs of women—and whether their voices are reflected in decision-making—underpins their capacity for resilience building. Key indicators in this category therefore examine whether a country has the necessary domestic protection for women and vulnerable groups as a basis for disaster planning and response; whether there is a culture of safety and investment in emergency response; how well DRR policy is coordinated and whether it has a gender focus; how effective government is in its implementation; and what is the institutional response to violence in society—and its implications for women.

Figure 8

Women's Resilience Index Institutional category scores



Note: 0 = lowest, 100 = highest

The past decade has seen the establishment of national disaster management bodies in almost all the South Asian countries in the WRI, and the development of centrally mandated DRR laws and policies with varying degrees of decentralisation and reliance on international partners for technical assistance.⁵³ There is a growing recognition of the importance of gender issues in the design of legislation and policy frameworks, which has boosted the performance of **Bhutan** (49.7) and **Nepal** (47.1) in this category, as does the opportunity for women to make decisions for and participate in DRR activities, and property rights that are favourable to women. This is much less the case in the **Maldives** (32.4) and **Sri Lanka** (29.4), leading to lower scores.

A review of policy and planning documents would indicate that the specific needs of women are increasingly being reflected in disaster management planning in some countries. One example are the 2014 *National Policy Guidelines on Vulnerable Groups in Disasters* produced by the Gender and Child Cell within Pakistan's National Disaster Management Authority (see

Box 6). These include aspects of international best practice, especially with regard to women's needs and potential contribution in emergency shelters. But gender sensitivity is less evident in the execution of programmes and projects, in part due to issues related to limited government effectiveness and weak implementation, and social and cultural factors.

Decentralisation—bringing decision-making and planning for DRR closer to the level at which such services are required—appears to be an obvious solution on the surface. The experience of organisations such as the Huairou Commission, which seeks to drive interactions between local governance actors and the grassroots, indicates that both the degree and the nature of decentralisation matter for disaster preparedness. The WRI shows that disaster readiness plans or regulations that include the transfer of some level of responsibility and authority to the local level exist across all South Asia—but also that this is not necessarily taking place in practice.⁵⁴ This is in a context where government effectiveness can sometimes impede the translation of policy

⁵³ Indicator 3.3.2, National platform for multilevel coordination of DRR. EIU qualitative assessment. WRI, 2014.

⁵⁴ Indicator 3.3.3, Decentralisation. EIU qualitative assessment. WRI, 2014.

into practice—not just in DRR, but across the board. The Maldives, Bangladesh and Pakistan scored lowest among the countries in the index on this front.⁵⁵

“There has been a lot of decentralisation, but not all of it is effective,” observes Ms Gupta of the Huairou Commission. In Nepal, where there is no autonomous local government, civil servants work with women at the grassroots but tend to be rotated, with implications for long-term DRR planning. While local government does exist in India, a lack of delegation of fiscal and administrative authority hampers the ability of village councils to be responsive. “There is not much power at the rural village council (*panchayat*) level, and they can be effective

only with extremely entrepreneurial leaders,” observes Ms Gupta. “Local governance actors are fighting to be recognised as legitimate, but they are sometimes marginalised.” This makes the task of empowering communities to build disaster resilience all the more difficult in what are traditionally top-down, bureaucratic systems in South Asia.

Category scores reflect that limited gains have been made in the inclusion of women in DRR decision-making and strategy, even in Japan (where, to take one arguably indicative factor, women comprised only 10.8% of parliamentarians in 2013).⁵⁶ Some female leaders have shaped DRR policy and implementation at the highest levels, such as

Box 6: Paving the way from policy to practice: A Gender and Child Cell in Pakistan

The 2010 floods in Pakistan affected more than 10% of the 180m population, and it was widely acknowledged that the specific needs of women and girls were overlooked in the response. This realisation prompted the country's National Disaster Management Authority (DMA) to establish the Gender and Child (GCC), a dedicated unit to drive the consideration of gender and child protection in disaster planning. With a national unit and GCCs established at each regional and provincial DMA, the intention was to drive gender- and child-sensitivity in local response planning.

One of the major challenges in the early days was intra-governmental coordination, says Farhat Sheik, programme manager of the GCC. “There was some decentralisation, but that came with a lack of coordination between the national and provincial DMAs which were reporting to donors, creating a disconnect.” In recent years, the national GCC has taken on more ownership for the initiative, with the provincial units now reporting directly back to the government. As well as improving coordination and creating direct links with the regions, the national GCC has now developed

the 2014 *National Policy Guidelines on Vulnerable Groups in Disasters*.

On the basis of this document, gender issues are reflected and prioritised in the country's monsoon contingency plans for the first time—for example, through the provision of supplies likely to be needed by women in disaster situations. But the next phase will be to institutionalise the guidelines at the provincial level, which is an ongoing process.

“The provincial DMAs have been consulted in the development of the guidelines and have received preliminary training,” says Dr Sheikh. There are a number of hurdles to implementing the policy at the provincial level, not least that there are few women working within the country's disaster management system. “There need to be more women: not only those that understand the issue, but we need to promote more leaders. The challenge is also to involve women and girls in the communities, for instance, such as the Girl Guides, who have knowledge and skills relevant to disaster response.”

⁵⁵ Indicator 3.5, Government Effectiveness, EIU qualitative assessment. WRI, 2014.

⁵⁷ Gender Inequality Index, UNDP, 2014.

Meena Khanal as former joint secretary of the environment ministry in Nepal, and Anandiben Patel as former minister of urban development, revenue and disaster management and now chief minister of Gujarat State in India. But the representation of women in strategic planning remains low.

"Bangladesh, India and Pakistan all have senior female leaders, and constitutional arrangements mandate that women should comprise 33% of elected representatives at the local level in India," says Mr Kumar of the SDMC. At the national level however, women held only 10.9% of seats in 2013, according to the United Nations Development Programme.⁵⁷ There is evidence that quotas are resulting in tangible gains though, as in Nepal, where women held 33% of seats.⁵⁸

The WRI indicates the picture is similar when considering the inclusion of women in DRR decision-making and leadership: in India, the Maldives and Sri Lanka, there is no requirement for female representation on disaster management planning councils or the equivalent bodies. In the remaining countries where gender equality is not the norm (including Japan), female representation on disaster management bodies is recommended but not always mandatory.⁵⁹

What institutional barriers prevent more women from seeking leadership positions and participating in disaster preparedness training? A number of countries in the index (Bangladesh, India, the Maldives and Pakistan) are reluctant to become full signatories to the Convention on the Elimination of Discrimination against Women (CEDAW), some provisions of which are seen as being inconsistent with Islamic laws or norms.⁶⁰ As a result, public institutions in these countries are not fully beholden to international standards for gender equality, which is reflected in the gender balance in administrative functions. Also significant is the low participation of women in police forces across South Asian countries: in

2013, only 0.6% of police officers in Pakistan were female, according to the Network for Improved Policing in South Asia (NIPSA), rising to 9.8% in the Maldives.⁶¹

Furthermore, the influence of female police officers is very limited across all countries in the index, with few being represented at senior levels and a lack of female police officers at the local level who can work with communities and talk to women both in the onset and aftermath of disasters.⁶² In more conservative South Asian societies, the importance of women being visible at the front-line of emergencies was starkly illustrated during the 2013 collapse of the Rana Plaza garment factory building in Bangladesh. "When volunteers arrived, some of the women refused to come out because some of their clothes were torn off. They said that they would rather die than be shamed," says Shamima Akther, gender consultant to the Asia Disaster Preparedness Centre (ADPC). "But when female volunteers went inside and tried to help, women victims were more receptive and felt more comfortable holding a women's hand than a man's."

Women are also more likely to report crimes of a sexual nature if female police officers are available. This is particularly important in societies where victims of sexual violence are likely to face stigmatisation. This occurred in the wake of the Indian Ocean tsunami, where male-dominated police units failed to respond to many cases of domestic violence, viewing the problem as a "family" or "private" matter.⁶³

The pervasiveness of general violence in some South Asian countries, and prevailing attitudes to VAW, matter here. High incidences of death from internal armed conflict in Sri Lanka and Pakistan (22,989 and 19,064 persons respectively in 2002-12) alongside high average annual intentional homicide rates (both registered 6.7 per 100,000 of the population in 2003-10) indicate an environment in which women are likely to face the pervasive threat

⁵⁷ Ibid.

⁵⁸ NB: The percentage of elected representatives that are women is not included as an indicator in the Institutional category of the WRI, which focuses on the extent to which DRR policy has a gender focus and whether women are included in DRR decision making, among other factors.

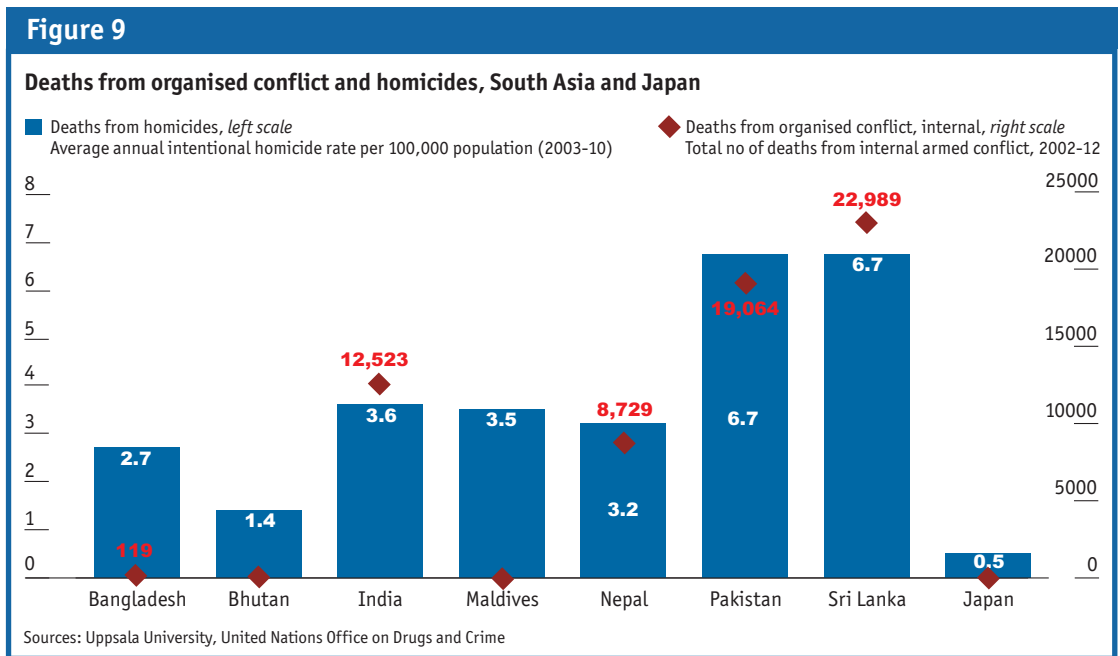
⁵⁹ Indicator 3.4.2, Inclusion of women in DRR decision-making and leadership. EIU qualitative assessment. WRI 2014.

⁶⁰ Indicator 3.1.1, Implementation of CEDAW. EIU qualitative assessment. WRI 2014.

⁶¹ Indicator 3.2.6, Women in police force. NIPSA, UK DFID, UNODC, Nepal Police, Global Network of Peacebuilders, EIU estimate. WRI 2014.

⁶² Indicator 3.2.5, Influence of women in police force. EIU qualitative assessment. WRI 2014.

⁶³ Fisher S., "Violence against women and natural disasters: findings from post-tsunami Sri Lanka." *Violence Against Women*, 2010.



⁶⁴ Felten-Biermann, C., "Gender and natural disaster: Sexualized violence and the tsunami." *Development*, 49(3), pp 82-86, 2006.

⁶⁵ Indicator 3.4.5, Measures to address violence against women. EIU qualitative assessment. WRI 2014.

⁶⁶ Mehta, Manjari, "Gender Matters: Lessons for Disaster Risk Reduction in South Asia". International Centre for Integrated Mountain Development, 2007.

⁶⁷ Full text of UNSC 1325 is available at <http://www.un.org/womenwatch/osagi/wps/>

⁶⁸ Kalin, Walter, "Protection of Internally Displaced Persons In Situations of Natural Disaster." Office of the High Commissioner for Human Rights, 2005.

of physical and sexual violence (see Figure 9). This daily vulnerability affects their ability to build their individual and household capacity for disaster resilience, and their involvement in community disaster-readiness efforts.

During and following a disaster situation, women are at higher risk of physical and sexual violence by intimate partners and strangers owing to social disruption and higher stress levels following a disaster, and they are particularly vulnerable in societies where they enjoy less physical mobility. This problem is compounded if aid and refugee services do not provide for the needs of women in their facilities, or do not recognise the needs or violations of women as legitimate.⁶⁴ No South Asian country in the index acknowledges this in its policies or planning for disaster management as a significant issue, in spite of high baseline levels of violence in some countries and a wider recognition of VAW as a problem.⁶⁵ This presents a serious challenge to the disaster response efforts: women have cited violence as a reason for not leaving their homes to seek shelter when disaster warnings go out, with direct implications for lives lost. During the recovery

period, social fragmentation and economic losses can be compounded at the community level when victims of VAW are rejected by their husbands and fall into destitution.⁶⁶

Related to this is the heightened vulnerability of disinherited women, widows, girl orphans and female IDPs to human trafficking in the aftermath of a disaster. The United Nations Security Council passed a landmark resolution (1325) in 2000 urging the increased participation of women and the incorporation of gender perspectives in UN peacekeeping and security efforts, and for special measures to protect women and girls from gender-based violence during conflict.⁶⁷ Despite this operational mandate, girls and women in South Asia continue to be vulnerable to sexual violence and trafficking during and in the wake of conflicts and disasters.⁶⁸ "The displacement of populations during a disaster often results in the separation of children from their families, and unaccompanied girls," observes Ms Nusrat.

Nonetheless, only in Pakistan are new requirements for female participation in the management of shelters and appropriate

security features for medical care outlined in national policy guidelines—and these have yet to be implemented at the provincial level (see *Box 6: Paving the way from policy to practice: A Gender and Child Cell in Pakistan*). Another barrier to women accessing shelter and emergency relief in disaster situations is related to documentation. Many women lack formal identification in South Asian countries. Customary traditions may disadvantage them further.⁶⁹ For example, female IDPs from Northern Waziristan in Pakistan displaced from

their homes by conflict struggled to access aid owing to a lack of official identification and a directive passed by elders preventing women from visiting aid centres.

Ownership of assets offers some protection to women in a post-disaster context. Aside from bolstering economic resilience, the risk of violence and destitution is likely to be reduced for women who own property or land. In Bangladesh, Bhutan, India and Nepal, despite equality of property and inheritance rights

Box 7: Women-led emergency response: Breaking down barriers in Bangladesh

The socially assigned role of women in many South Asian societies as caregivers and nurturers means that women can be the most effective risk managers for communities at times of disaster. “They know best about their own families’ and local needs, and we believe they should be the main responders for DRR assessment and support,” says Abdul Alim, manager for humanitarian response, DRR and climate justice at ActionAid Bangladesh.

To this end, ActionAid Bangladesh and local partners have pioneered a women-led emergency response in Kolapara, a sub-district of Patuakhali District in Bangladesh that was badly hit by Cyclone Mahasen in May 2013. Damage assessment and procurement committees made up entirely of women visited the affected areas, assessed the damaged houses and reported findings to the procurement team. They then led the budgeting process, selection of vendors, distribution and monitoring of the reconstruction efforts.

The initiative initially faced some resistance from local interests. “Some areas are very traditional, and initially the vendors at the market didn’t talk to the women when they tried to procure supplies,” says Mr Alim. “But they managed the expectations of their families at home, and nobody directly prevented them from participating.”

What are some of the factors that allowed these women to participate in and lead community preparedness activities in a more restrictive social context? For Hadia Nusrat, gender equality advisor for humanitarian community in Pakistan for the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and UN Women, the “ownership” aspect of such initiatives and decision-making on funds being put directly in the hands of women are all-important factors. “Women in these communities say that they have less influence on men usually. But since they have been included in [such] projects, men in their households have greater respect for them and discuss how funds should be dispersed,” she says.

This was certainly the case for the women of Kolapara, who went on to be trained in water and sanitation management, sustainable agriculture, building flood-resilient shelters, vegetable gardening, and rehabilitation. In doing so they are building the resilience of the local communities, developing the skills—and the confidence—to lead the response to local disasters, says Mr Alim of ActionAid. “Recently, an embankment broke and salinated water flooded the community. The women identified needs and petitioned ActionAid for funding.”

⁶⁹ Hourel, Katharine, and Mehsud, Saud. “Pakistan widows, ‘second’ wives flee fighting but are denied aid.” Reuters, August 1st, 2014.

by law, a lack of awareness of their rights and the continuation of traditional patriarchal practices often prevent women from claiming their rightful assets. This can vary right down to the subnational level: a tradition of matrilineal inheritance means that over 60% of land title deeds are held by women in Bhutan, but this is less likely to be the case in the south, where patrilineal inheritance is the norm. In Sri Lanka and Pakistan, customary laws (for instance sharia law related to inheritance rights) override statutory laws to the detriment of women, and can also limit their access to common resources such as forestry, fisheries and pastures, which can be critical to a household's subsistence survival.

Still, examples have emerged from the region of measures to correct gender inequality with respect to property ownership in the aftermath of a disaster. Following the 2001 Gujarat earthquake in India, reconstructed houses were registered jointly to the husband and wife of the household strengthening the position of many women as a result, providing some evidence for the contention that gender-sensitive DRR has

the potential to facilitate more equal relations between women and men (see also *Box 7: Women-led emergency response: Breaking down barriers in Bangladesh*).

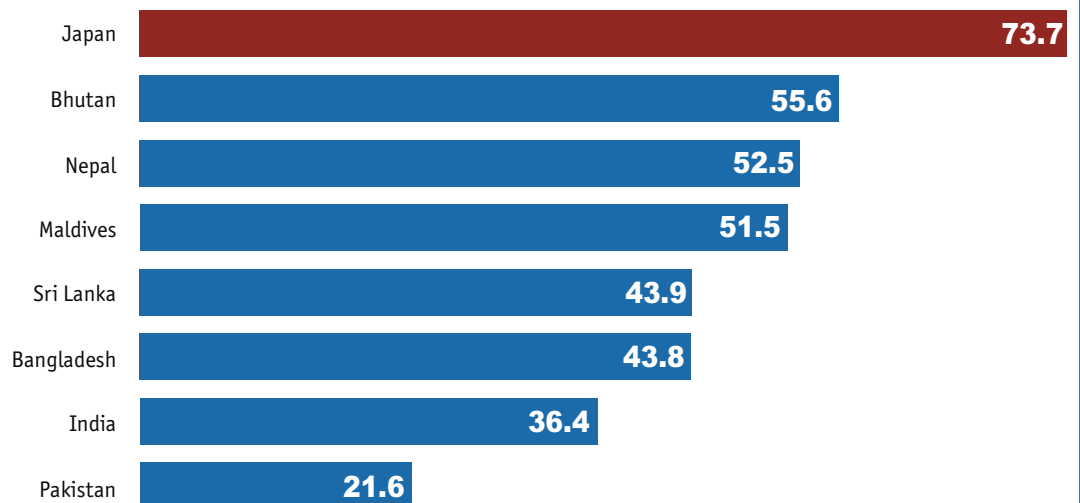
3.5 Social category scores

A country's informal capacity to respond to disaster depends on its demographics, educational attainment and overall health. Opportunities for education and mobility are critical to the resilience of women in responding to and in rebuilding from disasters. Key indicators in this category therefore assess how vulnerable the population is in the face of a disaster; how educated it is and whether girls receive the same opportunities as boys; what investments are being made in healthcare; and whether a population is healthy enough to cope in the face of a disruptive shock.

More progressive social attitudes related to women's mobility and access to education are evident in **Bhutan (55.6)** and **Nepal (52.5)**,

Figure 10

Women's Resilience Index Social category scores



Note: 0 = lowest, 100 = highest

which lead this category. Restrictions on movement and lower school enrolment for girls are among the issues that challenge **India (36.4)** and **Pakistan (21.6)** in this category.

The demographic dynamics for a number of South Asian countries in the index appear to be challenging for building disaster resilience. Urbanisation, migration, growing ratios of dependency on the working-age population and rapid population growth will significantly increase the number of people exposed and vulnerable to hazards.⁷⁰ The age dependency ratio of a country suggests not only a higher economic burden on the working-age population, but it also reflects the experiences of the carers of children, the elderly and the infirm—who are predominantly women in South Asia (and Japan). A higher number of dependants has a bearing on a woman's ability to generate income and maintain daily household function. Japan's dependency ratio is high (60%) given its greying population, but the institutional capacity and resources available to care for its elderly and infirm far outpace the poorer, more youthful countries of Nepal (68.5%) and Pakistan (63.1%).⁷¹

To compound this challenge, high child malnutrition rates in India (43.5%) and Pakistan (30.9%)⁷² indicate that the capacity and resources of primary carers in many households are likely to be stretched. A recent history of internal conflict has contributed to hundreds of thousands of people living as IDPs in both Pakistan and Sri Lanka, whose governments must plan for and manage disasters while directing attention and resources to the resettlement of this large, vulnerable group.⁷³

One aspect of women's experience that has implications for nearly all dimensions of resilience to disruptive events is that of mobility. Restrictions on travel due to domestic responsibilities or socio-cultural norms have a

bearing on how women can plan for, respond to and then rebuild from a disaster. Some are rooted in traditional patriarchal attitudes: physical restrictions on women in India, Pakistan,⁷⁴ and more conservative parts of Bangladesh, the Maldives, Nepal and Sri Lanka⁷⁵ have practical implications for their ability to participate in risk reduction activities such as emergency drills, or to seek emergency shelter and water or gain access to common property as needed when disasters do hit.

During a 2007 cyclone in Bangladesh, the mobility of women to find emergency shelter was impeded by such attitudes, observes Ms Akhter, consultant to the ADPC. The primary role of women as domestic carers in countries such as Nepal and Bhutan can also limit their freedom of movement too far from the home.⁷⁶ As Ms Nusrat of UNOCHA observes, southern Sindh in Pakistan is afflicted by cyclones and floods in the face of which many women are left behind to take care of the livestock, while the men of the household migrate for work.

Barriers to mobility also have severe implications for women's access to resources and information. Low participation of girls in secondary education—particularly in Pakistan, the Maldives and Bangladesh (Figure 11)—is not only a manifestation of such restrictions, but spurs a vicious circle that erodes women's capacity for disaster resilience building. Lower literacy rates mean that women are less likely to be able to read news alerts and information on disasters or educational literature on DRR planning, while barriers for access to education and skills training have a bearing on their income-generating opportunities. Schools also serve as a focal point for emergency drills in many South Asian countries, and lower girl attendance precludes them from potentially life-saving training.⁷⁷

The same applies to healthcare infrastructure, where mobility restrictions have direct

⁷⁰ Save the Children's Submission to the Seventh Session of the General Assembly Open Working Group on Sustainable Development Goals: 6-10 January 2014.

⁷¹ Indicator 4.1.1, Dependency ratio. World Bank. WRI 2014.

⁷² Indicator 4.3.4, Level of child malnutrition. World Bank. WRI 2014. (Prevalence of child malnutrition is the percentage of children under age 5 whose weight for age is more than two standard deviations below the median for the international reference population ages 0-59 months.)

⁷³ Indicator 4.1.2, Internally Displaced Persons. Internal Displacement Monitoring Centre, UNHCR, World Bank. WRI 2014

⁷⁴ Indicator 4.1.3, Ease of mobility for women. World Bank. WRI 2014. These countries scored the lowest, where for a majority of the population, it is not socially acceptable for women to visit public places without being accompanied by a male relative, even to seek healthcare.

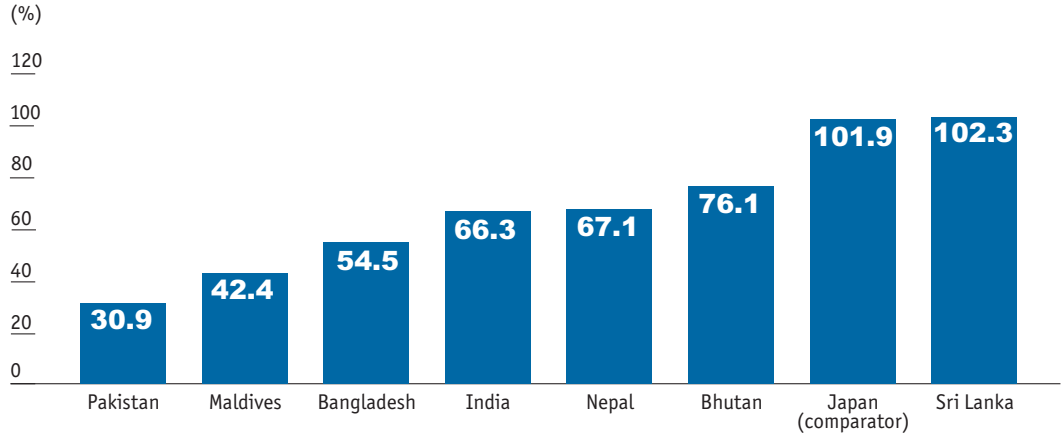
⁷⁵ Indicator 4.1.3, Ease of mobility for women. World Bank. WRI 2014. In these countries, for a significant minority of the population (10-50%), it is not socially acceptable for women to visit public places without being accompanied by a male relative, even to seek healthcare.

⁷⁶ Ibid.

⁷⁷ Indicator 3.2.1, Drills. EIU qualitative assessment. WRI 2014.

Figure 11

Rate of girls' secondary school enrolment (%)



Note: Enrolment figures include students whose age exceeds the official age group (e.g. repeaters). Thus, if there is late enrolment, early enrolment, or repetition, the total enrolment can exceed the population of the age group that officially corresponds to the level of education, leading to ratios greater than 100%.

Source: World Bank, World Development Indicators, 2011

implications for the overall wellbeing of women and their dependants. Issues of affordability, and limitations on the numbers of doctors and hospitals, exacerbate the problem in some South Asian countries.⁷⁸

One example of this was observed in Pakistan by Asher Hasan, founder and chief executive officer of Naya Jeevan, a social enterprise. Noting that the company's own female employees did not always return to work upon becoming pregnant, which is the social norm in Pakistan, Mr Hasan encouraged mobile working as a means of retaining their skills. This provided the spark of inspiration for "DoctHERs"—a scheme being piloted by Naya Jeevan using

telecommunications technology to connect female doctors working from home with women patients whose mobility is also restricted.

"Basically, these are virtual clinics, where we can match patients to doctors through an online portal," Mr Hasan says. "Usually a female nurse or midwife who is trained will be with the beneficiary to perform diagnostic exams and be the eyes, ears and hands of the physician." The technology can also be adapted to the available infrastructure. In urban slums where broadband connectivity is relatively good, peripheral diagnostic devices and video consultation can be used, whereas mobile voice can be deployed in rural, mountainous regions.

⁷⁸ Indicator 4.3.1, Number of doctors per 1000 population. WHO. WRI 2014; Indicator 4.3.2, Number of hospitals/ land unit. Statistics bureaus, various. WRI 2014.

Box 8: Bringing “new life” to women: Microinsurance for informal sector workers in urban Pakistan⁷⁹

The experience of women who live in the more cosmopolitan, urban regions of Pakistan differs greatly from that of those residing in more conservative, rural areas. In the commercial centre of Karachi, socio-economic change has resulted in more women entering the workforce, with many in the informal economy as domestic helpers and cooks. Poor urban and rural women do share a common problem in that affordability of healthcare is a barrier, and that their access to financial instruments is extremely limited (see section 3.2).

For Asher Hasan, founder and chief executive officer of social enterprise Naya Jeevan—which means “new life” in Urdu—the lack of affordable insurance options for low-income, informal sector workers was a serious social problem that struck close to home. Having seen the “vicious circle” that affected the family of his own childhood helper, who had to withdraw her children from school when her husband became ill, Mr Hasan spotted an opportunity to bridge the gap between those who could afford a safety net in the form of private health insurance, and those who could not.

“The fate of informal sector workers often fell with the government, and a number of attempts to establish health insurance have failed due to lack of will or capacity in the public sector,” says Mr Hasan. While private-sector initiatives should not detract from the state’s responsibility to provide fair and adequate social protection for the most vulnerable in society, Naya Jeevan offers a scalable model that can go some way towards mitigating issues of access and affordability of low-income and informal sector workers.

Observing that many informal sector workers were directly affiliated with the private sector and supplying “support services” or working directly for executives, Mr Hasan launched

a micro-insurance product in 2009 in which corporations could fund insurance schemes for those associated with their supply chain via workers affiliated with third-party contractors, as well as domestic staff employed by their employees. “It is about leveraging a private health insurance system that is in place already, that a large population is excluded from,” he says.

The initial challenge for the Naya Jeevan team was to convince corporate stakeholders and employers of informal sector workers to finance insurance packages to get the scheme off the ground. Eventually, companies realised that their own bargaining power to keep insurance premiums lower would be enhanced by their participation. “Through amplifying risk pools, companies can negotiate better rates for their own employees,” observes Mr Hasan. “And then there is the empirical argument: that the opportunity cost of a single day of lost productivity of one corporate worker is more than the annual cost for insuring one beneficiary at US\$30 per year.”

At a premium of around US\$2 per month, beneficiaries receive cashless, card-based services at over 190 private hospitals across Pakistan, covering hospitalisation and outpatient expenses. In addition, they can access a 24-hour tele-health line and can attend preventative health sessions. By the end of 2013, there were 25,190 beneficiaries connected to 83 corporate sponsors.

In addition, Naya Jeevan has launched “Busanti”—a bus service available to female beneficiaries to provide safe transportation for low-income, urban workers to get to work. As well as providing a haven from physical or sexual harassment, commuters have access to a 24-hour women’s health hotline and receive health awareness and education en route.

⁷⁹ Sources for this case study include an in-depth interview with Asher Hasan, founder and CEO of Naya Jeevan; Holtz, Jeanna and Merry, Alice, “Case Brief: Naya Jeevan.” Microinsurance Innovation Facility, International Labour Office, 2014, and Boss, Suzie. “What’s Next: HMO for the Poor.” *Stanford Social Innovation Review*, 2012.

4

Conclusions: Policy areas for gender-sensitive disaster risk reduction

The WRI confirms that when it comes to national disaster management, women in South Asia continue to face economic and social conditions that hinder their ability to contribute to community DRR efforts and to respond to disasters. Yet a number of examples have emerged from this research of innovative practices and mechanisms to enable women to build their own disaster resilience, and thereby bolster that of the community—in spite of seemingly adverse social-cultural conditions. “These women know how to live in that culture and to work within it. They usually have a solution and know how to get there,” says Ms Nusrat of UNOCHA. “It is a matter of making them conscious of their rights within that context.”

The WRI presents a **picture of current conditions for the participation of South Asian women in national disaster resilience efforts**, highlighting areas where stakeholders could focus efforts to drive progress. While the WRI draws attention to specific strengths and weaknesses in each geography (see Appendix 1: Country profiles), further research and evidence gathering are required to inform conclusive country-level policy recommendations and action plans. However, the findings do indicate a number of **overarching issues that have implications for gender-sensitive DRR in all countries across the region**.

4.1 Empower women to build disaster resilience at the community level

The WRI indicates that **South Asian countries are lagging when it comes to women's participation in DRR at the front line, and in their representation in project planning and execution**. Women in South Asian communities have already built up a certain degree of resilience for survival in adverse conditions. To improve their capacity for disaster response, the research indicates that **the economic empowerment of women in the community can make all the difference to their experience in DRR, and hence a community's resilience**. This can be achieved by improving the “bargaining power” of women, formalising their rights to assets and involving them in local planning as decision-makers. “This is one place where cultural issues tend to take a back step, as communities would like the funds that are affiliated with a project,” says Ms Nusrat.

Importantly, **this is contingent on being aware of cultural norms in more conservative settings, and challenging these in sensitive ways so that women can participate in DRR-planning and fulfil their rights**. According to Ms Ariyabandu of UNISDR, this approach is required even in apparently more liberal societies such as Sri Lanka, where women trainers are necessary to make women and girls

feel secure, and to ensure their participation at workshops where they are away from their communities. "There is a need to be cognisant of cultural sensitivities, and to walk that additional mile to create an enabling environment for women to engage and participate," she says.

Alongside men, female trainers, socialisers and monitoring officers are crucial to DRR activities, as are women front-line responders who can make all the difference to the behaviour—and survival prospects—of female victims during an emergency scenario.

4.2 Move the narrative of women in disasters from one of vulnerability to resilience—and leadership

One of the key findings of the research is that **the conceptualisation of communities and women as victims of disasters has been problematic in the past, and has precluded them from being considered as active agents in resilience building and fulfilling their rights to do so.**

Although the overarching goal of the HFA is to build the resilience of communities, the emphasis in the documentation is very much on reducing vulnerabilities—which is understandable in the wake of the 2004 Indian Ocean tsunami. "What emerged in media visuals and analysis from the tsunami was the vulnerability of women from a victim perspective. Images of wailing women and the reporting of abuse and rape highlighted vulnerability," says Ms Ariyabandu of UNSIDR.

After the tsunami, as South Asian countries began to adapt planning frameworks and conduct vulnerability analysis, information came to light that **the leadership skills that women have are exactly those that are required in disaster management.** "This is a considerable resource that is not fully tapped. Women are viewed as a group to whom services

need to be delivered; actually they are a resource," says Ms Ariyabandu. "Unless you look carefully, it is easy to overlook the skills and contribution of women."

For Mr Kumar of the SDMC, this oversight is reflected at the highest levels of decision-making too. "Regional DRR policy is currently vulnerability-based, and more female leadership can be brought to bear by changes to this," he says.

This is not to overlook vulnerability, which remains a critical analytical concept for identifying groups that are most in need, and to tailor disaster response and recovery accordingly. However, **recognition of the pre-existing resilience of women and their communities may open dialogue for more effective planning and response that builds upon experiences and skills gained.** "The word 'disaster' gives the impression that it is always some mega-scale event or large-scale destruction when actually, it is an everyday occurrence for many people, and part of the livelihood cycle," notes Ms Ariyabandu. "In fact, these groups are already actively adapting to climate change and disasters as they hit. So it becomes about strengthening the resilience of communities, regions, and local governments which are already doing quite a bit on their own."

4.3 Develop gender-specific and sex-disaggregated data in monitoring and evaluation

As it currently stands, the ability of stakeholders to measure progress on gender-sensitivity in DRR and resilience building is limited by a dearth of data disaggregated by sex.

The design and construction of the WRI also confirm that the current data for monitoring and evaluation of DRR are inadequate to track

and measure progress on gender equality. "It is a long-term process to try to shift emphasis in statistical data collection to drive assessment of differential vulnerabilities," says Alex de Sherbinin, senior staff associate for research at the Centre for International Earth Science Information Network at Columbia University.

Pertinent gender-disaggregated data are available at some sources, but at the moment, these are not being captured in the statistical systems of many South Asian countries. Promisingly, the "Zero" draft of the post-2015 framework for disaster risk reduction (HFA2) outlines as guiding principles; **"transparent risk-informed decision-making based on open and gender-specific/sex/age/disability-disaggregated data, and freely available, accessible, up-to-date, easy-to-understand, science-based, non-sensitive risk information complemented by local, traditional and indigenous knowledge."**⁸⁰

Professor de Sherbinin notes that it may be possible to leverage the power of existing survey efforts and other assessments such as household poverty surveys to improve robustness of existing datasets in a cost-effective way.

4.4 Address implementation challenges in the coordination and decentralisation of disaster planning

The generally weak performance of many South Asian countries to include a gender perspective in disaster planning and DRR leadership indicates that governments are currently not meeting an obligation to include women in decision-making.

The idea of disaster resilience as an "all of society" endeavour⁸¹ renders it a particularly complex issue. DRR has been defined as "everybody's business".⁸² Though this promotes

a holistic view of disaster resilience, it also makes coordination a challenge, across sectors and between the various stakeholders. This has had implications for the inclusion of a gender perspective in DRR and disaster resilience.

The HFA has driven a rethinking of DRR policies and institutions across South Asia: all countries in the index have since developed dedicated disaster management entities. Yet, **the WRI reveals that the implementation of DRR policies in South Asia is not always effective, particularly in the HFA provisions for gender, which have been weak across the board.**

"Vulnerable communities remain disempowered to a large extent, and women even more disempowered," says Saleemul Huq, senior fellow of the Climate Change Group at the International Institute for Environment and Development (IIED). "It boils down to good governance and genuine democratisation of the disempowered as to who can influence a positive outcome." This is beginning to occur at the community level between women's groups and local government in some South Asian countries through mechanisms such as community-based funds.

4.5 Assign accountability to stakeholders for gender-specific DRR targets

As suggested by the findings of the WRI, one of the key successes of the HFA has been its contribution to driving the establishment of central coordinating bodies and a policy agenda for DRR in all the South Asian countries in the index. However, the Framework itself is not legally binding, nor are any of the gender provisions within it. "When you look at the HFA national progress reports, you can see that governments can report without any real commitment," says Ms Ariyabandu of the UNSIDR.

This has also resulted in a weak realisation of gender-related goals—which were reflected

⁸⁰ "Zero draft submitted by the Co-chairs of the Preparatory Committee." Post-2015 framework for disaster risk reduction. Third United Nations World Conference on Disaster Risk Reduction Preparatory Committee, 20 October 2014.

⁸¹ As per one of the Zero draft guiding principles (e), "Disaster risk reduction requires an all-of-society engagement and empowerment, equality, and inclusive, accessible and non-discriminatory participation, paying special attention to at-risk groups in line with internationally agreed human rights.

⁸² SAARC Regional progress report on the implementation of the Hyogo Framework for Action (2011-2013) Reporting period: 2011-2013. May 2013.

across the 2005 Framework in a “cross-cutting” fashion, recognising the importance and need to take gender into account in DRR. Yet of the 22 core indicators governments are compelled to report, there is no single indicator to measure gender impact. “Beyond encouragement there is no mechanism to monitor, question, or hold governments accountable on this issue,” notes Ms Ariyabandu. “It is entirely voluntary.”

In approaching the next HFA, draft consultations have highlighted that **gender and women's issues must be built into the 2015 Framework as a matter of priority**. For Mr Kumar of the SDMC this presents an opportunity to **set some concrete targets to drive tangible results**, for example, related to gender-based budgeting in DRR planning. **Another area for urgent consideration is related to VAW, which is currently unacknowledged in DRR policies or planning, in spite of the daily threat faced by women across South Asia of physical and sexual violence.**

4.6 Recognise that disaster resilience is not poverty reduction—but has a critical interplay with sustainable development

“Resilience” has been a useful concept in bringing together short-term emergency response and interventions (such as DRR) and a longer-term development agenda, as well as sharpening the focus on sustainability. “In today's economic environment, we don't want to have to return to disaster sites every other year, but to build resilience within the communities,” notes Dr Béné of the IDS. “Resilience to disaster

is about coping with a disruptive event and the ability of individuals and communities to bounce back. This is important, but does not equate to poverty reduction. Indeed, you can strengthen the resilience of a woman living on the streets of Calcutta, but making her resilient to chronic poverty is not the same as lifting her out of poverty—eventually, you want poverty alleviation,” he says.

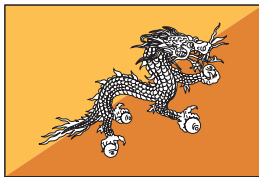
Importantly, the susceptibility of women to poverty is determined by the same social and economic inequalities and the institutional barriers that determine their vulnerability in the disaster cycle. **Observations from the WRI and research for this paper indicate that building resilience in communities is about providing women in South Asia with the opportunity to enhance what they are already doing to cope and recover in the face of quick-onset disasters. This needs to take place alongside continued poverty reduction efforts to effect transformative change.**

By the same token, DRR cannot be thought of in a vacuum. **Despite strengthened disaster preparedness in countries across South Asia over the past ten years, the gains from more lives saved and recovery from disruptive events will continue to be slow if survivors continue to live in poverty, and women continue to be denied equality of opportunity.** Having an effective EWS in place is not helpful for women without the literacy to read or understand information on emergencies, or who are not empowered to act upon receiving a disaster warning. In this sense, the priorities that will define the UN's Post-2015 Development Agenda are just as important as those that will underpin HFA2.

Appendix 1: Country profiles

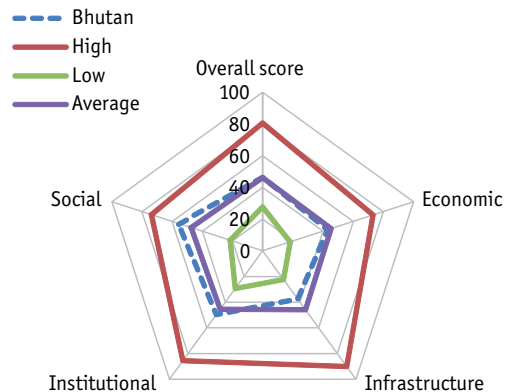
(Ordered by index ranking)

2. Bhutan



Bhutan

	Score/100	Rank/8
Overall score	46.4	2
Economic	43.0	6
Infrastructure	37.5	4
Institutional	49.7	2
Social	55.6	2



Bhutan is among the leaders of South Asian countries in the index by virtue of its national institutional framework and progressive social environment for women.

Relative to other countries in the region, Bhutan's vulnerability to quick-onset

disasters is low. Earthquakes, glacial lake outbursts, flash flooding and landslides are among some of the most common of these faced by the population, while the risk of forest fire hazard is also notable.¹

¹ South Asian Disaster Knowledge Network, Bhutan. South Asian Association for Regional Cooperation.

Economic category: Bhutan's economy is smaller than the economies of most of its regional counterparts, but it does have an advantage for disaster resilience in attitudes pertaining to women's access to finance and employment opportunities. This has been articulated in the country's Tenth Five-Year Plan (2008-13), which specifies gender as one of its cross-cutting themes. Though the country's constitution confers equal opportunities on women for work, there are no provisions in a planned Guaranteed Employment Programme that are specifically targeted at women.²

Infrastructure category: Bhutan's land-use planning process focuses on forestry and agriculture and is influenced by traditional community land use practices. The country has a basic building code, though many structures have not been built by these standards. Early warning systems exist for glacial lake outburst floods and those from rainfall, but these remain localised and are not linked to national or international systems. Coordination during and in the wake of disasters is challenged by the quality of the road networks, and access to transport in the rural areas remains poor. As observed by the Asian Development Bank, even though the paved road network has improved in recent years, rural access remains challenging during the rainy season, particularly along the steep hillsides, which are prone to landslides.³

Institutional category: The country lacks a national-level critical infrastructure plan, and social safety nets are limited. With respect to disaster risk reduction (DRR), the 2013 Hyogo Framework for Action national progress report highlighted gaps in policy implementation that in part are due to a lack of disaster management and response mechanisms.⁴ Since then, Bhutan has passed the Disaster Management Act in 2013

and inaugurated a National Disaster Management Authority in March 2014.

Women in DRR policy and planning: Women are accounted for in Bhutan's institutional DRR arrangements through a brief mention of gender issues in the 2013 Disaster Management Act and a statement that women leaders should be "adequately represented" on disaster management committees—though what is construed to be sufficient has not been defined. There is as yet limited attention paid to the needs of female internally displaced persons, as reflected in a report for the country's UN Development Assistance Framework, which identifies a need for essential service packages to address issues such as unsafe births and gender-based violence during emergencies.⁵

Statutory laws in Bhutan do not allow discrimination against women in the area of property rights and access to common property. Indeed, women have historically played an important role as custodians of natural resources, as noted by the Food and Agriculture Organisation.⁶ Furthermore, government sources report that over 60% of land title registration deeds are held by women,⁷ given the customary practice of matrilineal inheritance, though tradition disadvantages women in the south of the country, where patrilineal inheritance is the norm.

Social category: Generally, women face a less discriminatory social environment than many of their South-Asian counterparts, resulting in fewer barriers to mobility and allowing for unhindered participation in socioeconomic life and activities related to DRR and recovery. Bhutan's performance in this category is further bolstered by high enrolment rates for girls in secondary school (76.1%)⁸ and low levels of child malnutrition (12.8%).⁹

² Department of Employment, Ministry of Labour and Human Resources, Royal Government of Bhutan.

³ Project data sheet for the South Asia Subregional Economic Cooperation Road Connectivity Project. Asian Development Bank, September 2014.

⁴ "Bhutan: National progress report on the implementation of the Hyogo Framework for Action (2011-13)". Ministry of Home and Cultural Affairs, Government of Bhutan, May 2013.

⁵ United Nations Development Assistance Framework, Bhutan One Programme 2014-18. Version 28, November 2012, revised December 2012. A document of the United Nations country team which describes the collective response of the UN system to the priorities laid out in the government's Five-Year Plans.

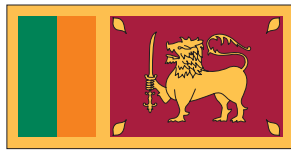
⁶ "Women in agriculture, environment and rural protection." Factsheet, Bhutan. Food and Agriculture Organisation of the United Nations, 1999.

⁷ "Keeping promises: A report on the status of implementation of the Brussels Programme of Action in Bhutan for the Decade." Gross National Happiness Commission, Royal Government of Bhutan, 2010.

⁸ World Development Indicators, World Bank 2012.

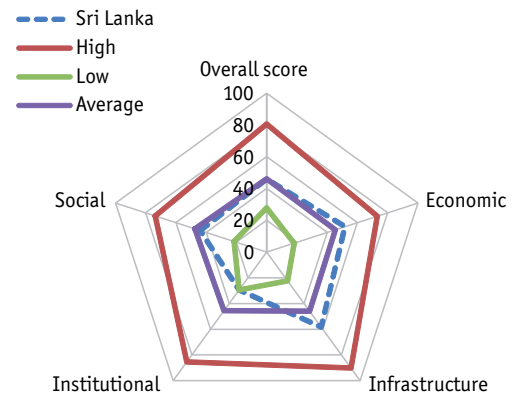
⁹ Ibid.

3. Sri Lanka



Sri Lanka

	Score/100	Rank/8
Overall score	45.9	3
Economic	51.8	3
Infrastructure	58.3	3
Institutional	29.4	8
Social	43.9	5



Sri Lanka’s economic and infrastructure capacity for disaster resilience has improved since the end of the civil war in 2009, driving its performance in the WRI. But the ability of women to lead resilience-building efforts and exercise their rights is hampered by institutional and social limitations.

Sri Lanka suffered the second-highest number of human deaths of all countries afflicted by the 2004 Indian Ocean tsunami. Though the economic and social impact has been pervasive, tsunamis are a rare event in the country, which is more likely to be afflicted by flooding and landslides.¹⁰

Economic category: With the lowest poverty headcount ratio among the South Asian countries in the index (4.1%)¹¹, Sri Lanka’s economic prospects have improved since the end of the civil war in 2009: annual GDP growth averaged

7.5% in 2010–13.¹² The majority of women rely on informal financing for access to credit and are the primary beneficiaries of microfinance schemes in Sri Lanka—they make up 92% of all borrowers.¹³ Many of the country’s commercial banks are now targeting women in their marketing of financial programmes, and state institutions offer loans targeted at women. Estimates from the World Bank indicate that Sri Lanka is relatively strong in this regard: 19.4% of women have taken loans from financial institutions while 67.2% have accounts.¹⁴ The government’s Samurdi Programme for income generation (with a budget of US\$23m in 2013) includes women as target beneficiaries, but there are no quotas or targets related to job opportunities generated.

Infrastructure category: Sri Lanka has a formal land-use planning system, although its effective implementation is limited by the overlap of responsibilities among government entities. Building codes do exist but are not widely implemented outside of the capital

¹⁰ South Asian Disaster Knowledge Network, Sri Lanka. South Asian Association for Regional Cooperation.

¹¹ World Bank, 2010.

¹² Economist Intelligence Unit.

¹³ Percent of women borrowers in Sri Lanka based on a sample of eight microfinance institutions reported to MIX Market in 2012.

¹⁴ Global Financial Inclusion Database. World Bank, 2012–13.

city of Colombo, while some aspects are only voluntary. Investments in infrastructure have led to improvements in communications: mobile cellular subscriptions have a penetration rate of 95%,¹⁵ and significant improvements have been made to the early warning system in the wake of the devastating 2010 Indian Ocean tsunami in the form of a dedicated Disaster Management Centre. Still, warning dissemination at the community level remains dependent on some of the larger international NGOs such as the Red Cross. Even prior to the end of the civil war in 2009, the government had invested heavily in road infrastructure, which has improved markedly since then.¹⁶

Institutional category: Sri Lanka performs less well on its “culture of safety” among institutions, with a Comprehensive Disaster Management Plan only in draft form as of 2014. DARA, a non-profit research organisation, cites¹⁷ a high degree of centralisation as a challenge in the vertical integration of disaster risk management activities between the national and local level. In addition, a 2011 UN Disaster Assessment and Coordination Report highlighted insufficient capacity for disaster response, reflected in a lack of local-level emergency operation centres, limited coverage by the fire services and limited search and rescue capabilities.¹⁸ Women make up 5.3% of the police force,¹⁹ and while women's and children's desks are now located in some police stations, no serious attempts have yet been made to increase the number and influence of female officers, despite high levels of violence and violence against women (VAW) in society. Sri Lanka is integrated into regional risk assessment arrangements through its membership of the South Asian Association for Regional Cooperation. The Disaster Management Centre under the National Council for Disaster Management serves as the apex body for DRR and policy initiatives in the country.

There is no specific law guaranteeing equitable access for women to common property and property rights, and customary and personal laws in favour of men can override statutory rights of women in practice. Women face barriers in their access to productive land in particular, given a requirement for documentation to be signed by the (customarily) male head of household.²⁰

Women in DRR policy and planning: Neither disaster risk reduction (DRR) legislation nor general planning documentation currently contains a gender perspective, though the national progress report on the Hyogo Framework for Action recommends that new documentation should place greater emphasis on gender issues.²¹ An analysis made by the human rights organisation Freedom House in 2013 suggests that there is no requirement for female representation in disaster management bodies and, as a general rule, women remain underrepresented in politics and the civil service. Following decades of civil war, VAW continues to be a pervasive problem in Sri Lanka.²² A 2014 analysis by Freedom House suggests that rape and domestic violence remain serious problems in the country.²³ Furthermore, incidences of discrimination, harassment and sexual abuse of female internally displaced persons were reported at distribution centres and camps following the 2004 Indian Ocean tsunami, indicating that this is an area for closer attention.²⁴

Social category: While women face fewer restrictions on mobility compared with some other South Asian countries (with the exception of gender discrimination among specific groups), low female participation in economic activities is in some part a result of women's traditional roles as child-bearers and for domestic work, and a lack of access to opportunities and information pertaining to other work.²⁵

¹⁵ World Bank, 2013.

¹⁶ See “The Asian Development Bank's Support for the Transport Sector in Sri Lanka. Sector Assistance Programme Evaluation.” Asian Development Bank, April 2012.

¹⁷ “Retrospective evaluation of the GRDRR programme in a sample of disaster-prone countries: Evaluation report.” DARA 2014. DARA's Global Facility for Disaster Reduction and Recovery works in five countries, including Sri Lanka and Nepal.

¹⁸ “Disaster response preparedness assessment mission to Sri Lanka.” United Nations Disaster Assessment and Coordination, 12–25 November 2011.

¹⁹ Global Network of Women Peacebuilders, 2012.

²⁰ “Gender Inequality and the Millennium Development Goals: What are the Missing Dimensions?” OECD Development Centre, 2010.

²¹ “Sri Lanka: National progress report on the implementation of the Hyogo Framework for Action (2011–13)”. Disaster Management Centre, The Government of Sri Lanka, May 2013.

²² In a recent survey by the United Nations, 65% of men surveyed in the Sri Lanka sample said they had committed rape more than once, with 40% committing their first rape before the age of 20. See: Fulu, E, Warner, X, Miedema, S, Jewkes, R., Roselli, T. and Lang, J. “Why do some men use violence against women and how can we prevent it? Quantitative findings from the United Nations Multi-country study on Men and Violence in Asia and the Pacific”. UNDP, UNFPA, UN Women and UNV, September 2013.

²³ Freedom in the World 2014. Freedom House, 2014.

²⁴ “The tsunami's impact on women,” Briefing Note. Oxfam International, March 2005.

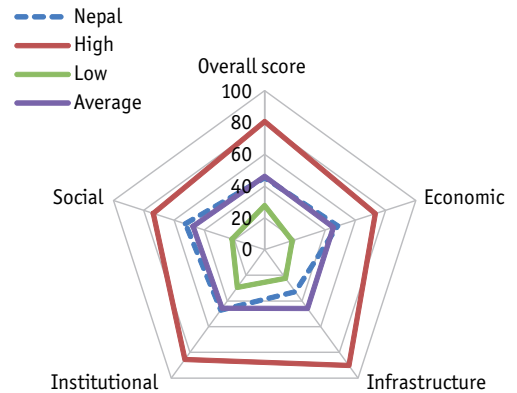
²⁵ “Low Female Labor-force Participation in Sri Lanka: Contributory Factors, Challenges and Policy Implications.” Report No. 68, South Asia Human Development Sector, World Bank, January 2013.

4. Nepal



Nepal

	Score/100	Rank/8
Overall score	45.2	4
Economic	48.3	5
Infrastructure	32.7	6
Institutional	47.1	3
Social	52.5	3



Mountainous Nepal has a less developed infrastructure to deal with disaster risk reduction (DRR) than its larger South Asian counterparts in the index, though a number of gender-sensitive initiatives underpin its economic, institutional and social environment for disaster resilience.

Situated on tectonic fault lines, Nepal is exposed to the risk of earthquakes, though flooding, landslides and wildfires are also a hazard risk.²⁶

Economic category: A key objective of the country's Microcredit Policy of 2007 was to drive access to credit for women and low-income families: in 2012, women comprised some 98.5% of borrowers.²⁷ Access to formal bank accounts is limited for both men (30%) and women (21%) in Nepal, while only 9.6% of women have loans at financial institutions.²⁸ The parliament is currently reviewing an Employment Guarantee Act, which provides for women's right to work, sets employment quotas for women and confers equality of wages.²⁹

Infrastructure category: DRR-related infrastructure in Nepal requires attention on a number of fronts. The legal and administrative underpinnings for a land-use planning system do exist but are not cohesive, and there is a National Building Code that is mandatory for all municipalities—though capacity for implementation and enforcement remains a challenge. Gaps in communication mechanisms—for example, just 36.4% of the population has access to television³⁰—has hindered the development of an early warning system that is integrated on national and community levels. The country's mountainous terrain and reliance on civil aviation create specific challenges for disaster response and recovery.³¹ There is no national-level critical infrastructure plan in place to this end.

Institutional category: Emergency response is led and coordinated by the Nepalese police, though as yet, there is no cross-agency task force for emergency response and disaster management. Weaknesses have been noted in Nepal's urban search-and-rescue, fire and ambulance services capabilities,³² although

²⁶ South Asian Disaster Knowledge Network, Nepal. South Asian Association for Regional Cooperation.

²⁷ Percent of women borrowers in Nepal based on a sample of 24 microfinance institutions reported to MIX Market in 2012.

²⁸ Global Financial Inclusion Database. World Bank, 2012-13.

²⁹ As of August 2014.

³⁰ Nepal Population and Housing Census 2011, Central Bureau of Statistics, Government of Nepal.

³¹ Nepal has one international airport and 42 domestic ones.

³² "Nepal Risk Reduction Consortium Flagship Programmes," Flagship 2.

some training by agencies such as the Red Cross has been taking place in these areas. Women comprise just 6% of the police force,³³ and very few serve in the rank of inspector or above. The country is a member of the South Asian Association for Regional Cooperation, and partners with and receives support for disaster management initiatives from various multilateral and financial institutions through a Nepal Risk Reduction Consortium. Nationally, a National Disaster Management Authority serves as the focal agency, and there is a 2013 National Disaster Response Framework detailing how responsibilities are allocated between central and local government bodies and NGOs. It also recognises that violence against women is a relevant issue, but the Framework is not explicit on its prevention or response.

Women enjoy equality of rights with men in the ownership of property, and equal inheritance rights with the ratification of a 2006 act on gender equality. Under the constitution, customary laws are not considered to be valid, but a Convention to Eliminate all Forms of Discrimination Against Women (CEDAW) report

observed that many rural women were in fact unaware that discriminatory customary laws are illegal³⁴—which has implications for women's access to common property and the country's forest resources.

Women in DRR policy and planning: The current legislation on disaster relief, the 1982 National Calamity Relief Act, does not include a gender perspective, though women are required to be represented on central and local disaster management committees under the 2009 National Strategy on Disaster Risk Management (not yet passed into law).³⁵ This policy calls for DRR training to be provided on a priority basis to women and other marginalised groups, while a 2011 Local Disaster Risk Management Guideline explicitly calls for one-third of female leadership on local taskforces.

Social category: Patriarchal attitudes remain predominant in Nepalese society and have a bearing on women's inclination to enter the workforce: half of unemployed women in Nepal cite childcare and domestic duties as the reason for not pursuing work opportunities.³⁶

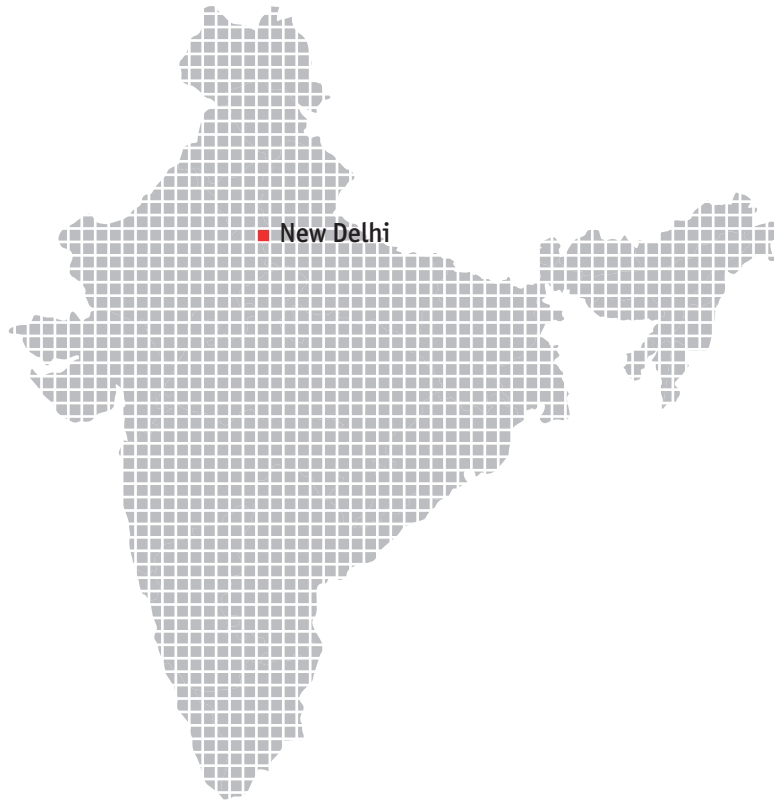
³³ Nepal Police, Women and Children Service Directorate, 2013.

³⁴ Consideration of reports submitted by parties under article 18 or the Convention on the Elimination of All Forms of Discrimination against Women. Combined fourth and fifth periodic reports of States parties. Nepal. Committee on the Elimination of Discrimination against Women, November 2010.

³⁵ As of August 2014.

³⁶ Nepal Demographic and Health Survey, 2011.

5. India



Women's resilience in India is boosted by its economic provisions. The cultural-social experience of women and limitations related to infrastructure for disaster risk reduction (DRR) indicate areas for attention.

Flooding is a frequent disaster risk for much of India's population, while earthquakes are particularly high-impact disaster events for India's economy.³⁷

Economic category: Some 93.7% of microfinance borrowers are women in India,³⁸ and such schemes remain the key channel by which Indian women have access to credit. And while most of the country remains outside of the formal

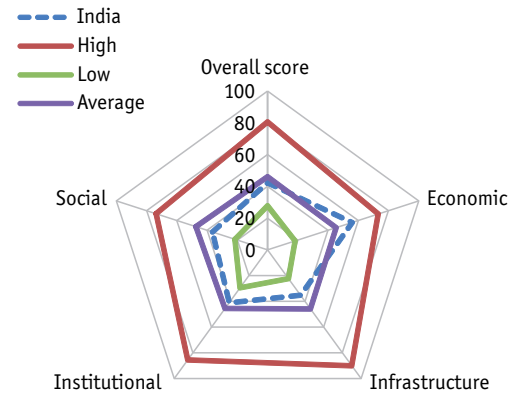
³⁷ South Asian Disaster Knowledge Network, India. South Asian Association for Regional Cooperation.

³⁸ MIX Market, 2012.

³⁹ World Development Indicators. World Bank, 2012.

India

	Score/100	Rank/8
Overall score	42.2	5
Economic	55.9	2
Infrastructure	35.3	5
Institutional	41.1	5
Social	36.4	7



banking sector, there are a number of regional institutions that have designed programmes and financial instruments specifically for women, such as Gujarat's Self Employed Women's Association (SEWA) bank. The new National Employment Guarantee Scheme explicitly establishes the right of women to work, stipulating that one-third of the jobs generated should go to women, and specifies that men and women should be paid equal wages. No nationwide scheme exists for unemployment benefits, though a number of diverse social protection schemes are in place or under development. These include the National Rural Employment Guarantee Act, which strives to guarantee 100 days of paid work per year to rural households.

Infrastructure category: India's performance in this category has been hampered by the infrastructure for sanitation: only 36% of the population have access to sanitation, and just 25% of rural dwellers.³⁹ Although recent budgets have emphasised increased funding for transport infrastructure, India's population remains

underserved by existing roads, ports, railways and airports, where capacity lags the requirements of the economy.⁴⁰ Issues of governance—the country's Planning Commission cites inadequate administrative and financial decentralisation and a lack of capacity and mandate for regional and local institutions⁴¹—have hampered the development of a cohesive land-use planning system. A building code is in place, but it is not easily available. An early warning system has been established and monitoring systems are generally in place, though communication between the national and the local level can be variable across states.

Institutional category: The country's National Policy on Disaster Management mandates that the National Disaster Management Authority (now being restructured following severe criticism of its effectiveness in 2013 by the Comptroller and Auditor General, and a change of government in early 2014) should assist local authorities in conducting drills. However, state and district disaster management plans are generally at a less developed stage than those at the national level.⁴² The 2005 Disaster Management Act established a National Disaster Response Force, but its effectiveness has been hampered a lack of training and resources. In practice, the armed forces tend to play the role of first responders despite having no dedicated disaster relief units.

Women comprise just 5.3% of the police force in India.⁴³ High-profile cases of sexual violence have raised public awareness on the issue of violence against women (VAW), leading to calls for new legislation: parliament passed a package of laws in 2013 to deter sexual VAW.⁴⁴ Some state-level initiatives have responded to a public call for more female police officers. One example is a 33% quota for women in the police force announced by the Gujarat chief minister, Anandiben Patel.⁴⁵ Recent studies indicate that the influence of women in the police force remains limited, however, and institutionalised gender discrimination continues to be endemic.⁴⁶ India has a strong record of participation in trans-boundary agreements, as exemplified by

its membership of the South Asian Association for Regional Cooperation and the use of relatively sophisticated national disaster management information systems in assessing disaster risk.

Customary practices often override legal guarantees for equal access by women to land and property. The Hindu Succession Act enshrines equal ownership and inheritance rights for men and women, but enforcement has been observed to be weak,⁴⁷ and customary laws (such as sharia law) are followed by the country's Muslim minority.

Women in DRR policy and planning: India has ratified the Convention to Eliminate all Forms of Discrimination Against Women (CEDAW), but with reservations.⁴⁸ There is a very limited gender focus in DRR policy—there is no reference in the 2005 Disaster Management Act, and only a brief mention of women as a vulnerable group in the 2009 National Policy on Disaster Management. The policy does encourage the participation of women in local-level committees, but there is no requirement for the Disaster Management Authorities at the national, state or district level to have female representation. Government training materials on best practice in gender-sensitive shelter provision and management for internally displaced persons were produced in 2008, but were not subsequently incorporated into key policy or planning documents for DRR. VAW is not explicitly mentioned either in local or national DRR policy, despite India being cited as the fourth-most-dangerous country in the world for women.⁴⁹

Social category: While women have gained more visible representation and autonomy in past decades, gender inequality is still pervasive in India, as exemplified by low secondary school enrolment rates for girls (66.3%) as opposed to boys.⁵⁰ Socio-cultural beliefs and patriarchal attitudes continue to hamper access to education opportunities for girls, limit access to healthcare (out-of-pocket, private expenses account for an average of 71.8% of total expenditure on health)⁵¹ and restrict the physical mobility of women in many communities.

⁴⁰ "Accelerated Development of Transport Infrastructure: Approach to the 12th Plan." Planning Commission, Government of India, 2012.

⁴¹ "Working group on environmental sustainability of Indian cities for the formulation of the 12th Five Year Plan." Draft Paper, Planning Commission, 2011.

⁴² "India: National progress report on the implementation of the Hyogo Framework for Action (2011-13)", The Government of India, May 2013.

⁴³ Network for Improved Policing in South Asia, 2013.

⁴⁴ "Notorious attack spurs India to approve new rape laws." *The New York Times*, February 3rd 2014.

⁴⁵ "Gujarat CM announces 33% quota for women in police force." *The Times of India*, June 24th, 2014.

⁴⁶ Mangai Natarajan, "Police culture and the integration of women officers in India." *International Journal of Police Science & Management*, Summer 2014, Vol. 16, No. 2, 2014, pp. 124-139.

⁴⁷ The Social Institutions and Gender Index. OECD, 2012.

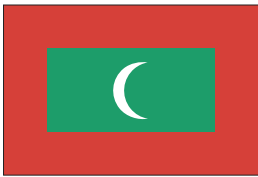
⁴⁸ India does not consider itself bound by article 29, paragraph 1 of CEDAW which states that any dispute between two or more parties concerning the interpretation or application of the convention which is not settled by negotiation shall, at the request of one of them, be submitted to arbitration or to the International Court of Justice.

⁴⁹ Trustlaw Women. Thomson Reuters Foundation, 2011.

⁵⁰ World Development Indicators, World Bank 2011.

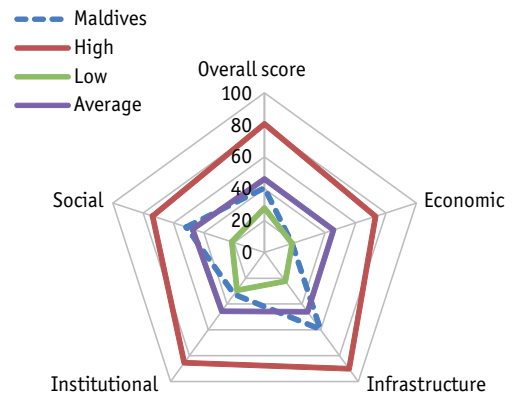
⁵¹ Ibid.

6. Maldives



Maldives

	Score/100	Rank/8
Overall score	40.4	6
Economic	18.2	8
Infrastructure	59.6	2
Institutional	32.4	7
Social	51.5	4



On the front line of climate change adaptation, the Maldives has developed a relatively robust infrastructure in response to disaster risk reduction (DRR) boosting the

island nation's capacity for resilience. However, there are limited economic and institutional provisions for women.

*The small population of the Maldives is highly exposed to ocean- and storm-related events, such as tsunamis and storm surges. This exposure is exacerbated in the context of rising sea levels, which threaten to submerge the islands in the long term.*⁵²

Economic category: Unlike its South Asian counterparts, there is a very limited microfinance

network in the Maldives. A number of government initiatives are in place to improve access to credit for women, but there is scant evidence of female participation in finance programmes or the availability of financial instruments to women. Though the constitution enshrines the right to equal opportunities for work, no schemes are in place to generate or promote employment opportunities for women despite a historically high female unemployment rate of 23.8% in 2006.⁵³

Infrastructure category: The Maldives is in the early days of implementing a land-use management system that is underpinned by legislation. A modern building code is also in place, though it has no legal status. Extensive communications networks (television, radio⁵⁴ and mobile penetration⁵⁵) for this small population boost its infrastructural capacity for disaster resilience, though issues around information dissemination across the country's many islands still pertain to its early warning

⁵² South Asian Disaster Knowledge Network, the Maldives. South Asian Association for Regional Cooperation.

⁵³ Latest available data. Census 2006 analytical report, Department of National Planning, Maldives.

⁵⁴ Household Income and Expenditure Survey, 2009-10, Department of National Planning and Ministry of Finance and Treasury, Maldives.

⁵⁵ World Bank, 2013.

system, which was established following the 2004 Indian Ocean tsunami. Maritime and air transport are the primary mode of travel, and accessibility for island inhabitants to essential services and facilities remains a challenge. The country does not have a national-level critical infrastructure plan, though some aspects are covered in the National Recovery and Reconstruction Plan, and a Strategic National Action Plan (SNAP) that integrates both DRR and climate change adaptation (CCA).

Institutional category: The Maldives' "culture of safety" remains relatively weak: a 2012 Hyogo Framework for Action progress report notes that less than 5% of islands focus on community-level drills, while only around 20% of islands have integrated disaster risk reduction (DRR) into their development plans.⁵⁶ There is a National Disaster Management Centre in place to coordinate disaster response, to which the Maldivian Red Crescent provides extensive support in the form of response and training. The island nation is party to trans-boundary risk assessment systems and agreements through its membership of the South Asian Association for Regional Cooperation, though capacity in this area is reliant on international partners. The Maldives National Defence Force was active in the country's response to Cyclone Nilam of 2012, but its disaster-response capacity is not specialised and appears to be limited to standard paramedic units. Women comprise only 9.3% of the police force, and even then they tend to be confined to back-office positions with little involvement in decision-making.⁵⁷

There is no evidence of discrimination against female-headed households in the categorisation and registration of land, though laws around access to common property or government-allocated land remain very unclear. The population of the Maldives is almost entirely Muslim, and sharia law applies to inheritance rights.

Women in DRR policy and planning: A gender perspective is not much reflected in disaster management planning documentation, and is not specifically referenced in SNAP, though it does suggest that women's groups should be represented in local-level DRR working groups—which have yet to be established. Key documents or plans do not include provisions for the needs of female internally displaced persons, nor is women's inclusion specified in disaster preparedness training. Similarly, measures to address violence against women (VAW) are not included, despite VAW being endemic in the Maldives and experienced by one-third of women in 2007.⁵⁸

Social category: Islamic tradition serves as the basis for current gender relations, and while physical mobility does not appear to be highly restricted, domestic responsibilities have had implications for women's participation in the workforce: only 21% of female household heads were economically active in 2006.⁵⁹ Socio-cultural factors have a bearing on the equality of opportunity for education—only 42.4% of girls were enrolled in secondary school in 2011.⁶⁰

⁵⁶ "Maldives: National progress report on the implementation of the Hyogo Framework for Action (2011-13)". Ministry of Home and Cultural Affairs, National Disaster Management Centre, Government of Maldives, May 2013.

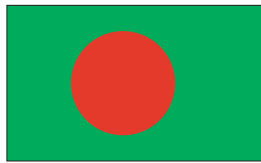
⁵⁷ Network for Improved Policing in South Asia, 2013.

⁵⁸ "The Maldives Study on Women's Health and Life Experiences." Ministry of Gender and Family, Government of Maldives, 2007.

⁵⁹ Latest available data. Census 2006 analytical report, Department of National Planning, Maldives.

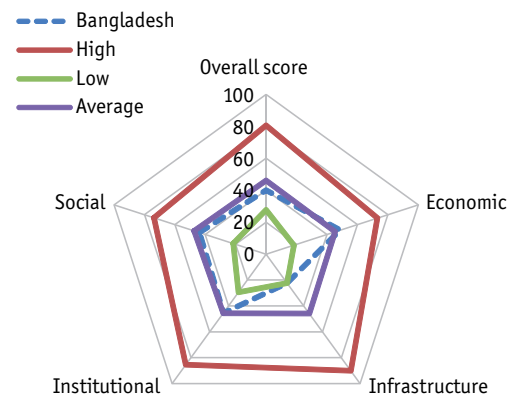
⁶⁰ Department of National Planning, 2011.

7. Bangladesh



Bangladesh

	Score/100	Rank/8
Overall score	40.0	7
Economic	48.6	4
Infrastructure	22.3	8
Institutional	45.4	4
Social	43.8	6



Limitations in disaster risk reduction (DRR) infrastructure bring down Bangladesh's overall disaster resilience capacity. Some economic and institutional features, however, bolster its performance in the WRI.

*Badly afflicted by the 2004 Indian Ocean tsunami, the coast regions are also subject to storm surges. Much of rural Bangladesh is annually exposed to the threat of flooding from monsoonal rains.*⁶¹

Economic category: Women represent the majority of microfinance borrowers—90.1%⁶²—but their access to credit at both formal and informal institutions remains limited given the requirements for collateral. As it stands, women have little access to inherited property and loan applications must typically be signed by a male head of household. This is reflected in only 22.3% of loans being made to women at financial institutions, and women owning just 34.9% of bank accounts in 2012–13, according to the

World Bank.⁶³ A number of government poverty alleviation schemes with a work component exist—such as the Food for Work and Rural Employment Opportunities for Public Assets programmes—and do specifically target women. However, they do not always enjoy decent work as indicated by labour conditions in the textile industry, which comprises mostly women workers.⁶⁴ There are also some social safety nets, such as a gender-sensitive old-age allowance, and unemployment benefits available for formal-sector workers.

Infrastructure category: Bangladesh has some components of an effective land-use system, namely, an Urban Development Directorate and a dedicated development authority for four cities. There is a mandatory building code but compliance is a pervasive issue, as exemplified by the high-profile collapse of a garment factory building in 2013 that led to 1,138 deaths.⁶⁵ The country does have many aspects of an end-to-end early warning system, with improvements shown in the success of the response to more recent

⁶¹ South Asian Disaster Knowledge Network, Bangladesh. South Asian Association for Regional Cooperation.

⁶² Percent of women borrowers in Bangladesh based on a sample of 28 microfinance institutions reported to MIX Market in 2012.

⁶³ Global Financial Inclusion Database. World Bank, 2012–13.

⁶⁴ Srivastava, Mehul and Devnath, Arun, "Bangladesh's paradox for poor women workers." Bloomberg Businessweek, 9th May 2013.

⁶⁵ "Rana Plaza factory disaster anniversary marked by protests." The Guardian, 24 April 2014.

cyclones. Bangladesh's transport infrastructure has been repeatedly damaged by various natural disasters such as floods and cyclones, yet no national-level critical infrastructure plan exists.

Institutional category: It is mandatory for schools to organise at least two mock drills a year. The country's National Plan for Disaster Management mandates community-level drills, though in practice, DRR awareness is low and the execution of such drills is sporadic.⁶⁶ The capacity and quality of emergency response have improved in recent years through education and training schemes such as the Cyclone Preparedness Programme, which has provided training to some 60,000 government officials. The response to Cyclone Mahasen in 2013 showcased the country's improved disaster warning and emergency response capabilities—with over 1.1m people safely evacuated ahead of time.⁶⁷

Women make up just 3.9% of the police force, according to a Department for International Development (UK) report in 2012. And despite discernible changes in institutional attitudes, media reports in 2010 indicated that just five female officers held a senior rank.⁶⁸ Bangladesh is a signatory to a number of international and regional initiatives related to DRR, and it is now employing risk mapping technologies to assist more robust risk assessment across major cities and the coastline. The Disaster Management and Relief Division of the Ministry of Food and Disaster Management is responsible for inter-agency coordination, with responsibilities for government agencies, development partners, media and civil society outlined as outlined in Bangladesh's Standing Orders on Disaster.

Bangladesh ratified the Convention to Eliminate all Forms of Discrimination Against Women (CEDAW) with reservations.⁶⁹ Women maintain

equal rights to common property under the law, and government land must be allocated to the family in both the husband's and the wife's name. In practice, however, women are disadvantaged by a lack of legal awareness or access to institutional recourse. Women do not currently have inheritance rights on property, though this may change in due course with the implementation of the National Women's Development Policy of 2011.

Women in DRR policy and planning: While vague on the role that women play in disasters, the National Plan for Disaster Management recognises the particular vulnerabilities of women, though these do not necessarily trickle down into disaster-specific or local plans. Planning documents provide for the needs of female internally displaced persons (IDPs) in that they encourage the building of separate facilities where possible and for the inclusion of women in the management committees of cyclone shelters. But security and privacy concerns continue to deter some women from shelters, and there is evidence of increased domestic and external violence against women taking place during and after the onset of disasters.⁷⁰ This is in an environment where there are already high levels of violence against women (VAW) in society: 87% of women have been the victims of domestic violence, according to a 2011 survey.⁷¹

Social category: Mobility for women in largely Muslim Bangladesh varies depending on social status, religious affiliation or whether they are resident in urban or rural areas. Socio-cultural norms restrict a large proportion of women to domestic responsibilities and limited access to education and health. In 2011 only 54.5% of girls were enrolled in secondary school,⁷² while 42% of women aged 15-19 were unable to attend a health centre alone.⁷³

⁶⁶ "Bangladesh: National progress report on the implementation of the Hyogo Framework for Action (2011-13)". The Department of Disaster Management Bangladesh, April 2013.

⁶⁷ "Cyclone Mahasen 2013: Information Bulletin 1." Hong Kong Red Cross, May 22nd 2013.

⁶⁸ Rahman, M. "Number of women rising in police force." *The Daily Star*, March 9th 2013.

⁶⁹ According to the record of treaties at the UN, "The Government of the People's Republic of Bangladesh does not consider as binding upon itself the provisions of (CEDAW) article 2, [... and ...] 16 (1) (c) as they conflict with Sharia law based on Holy Quran and Sunna." Article 2 pertains to policy, where "States Parties condemn discrimination against women in all its forms, agree to pursue by all appropriate means and without delay a policy of eliminating discrimination against women." Article 16(c) confers the "The same rights and responsibilities during marriage and at its dissolution;" to men and women in marriage and family life.

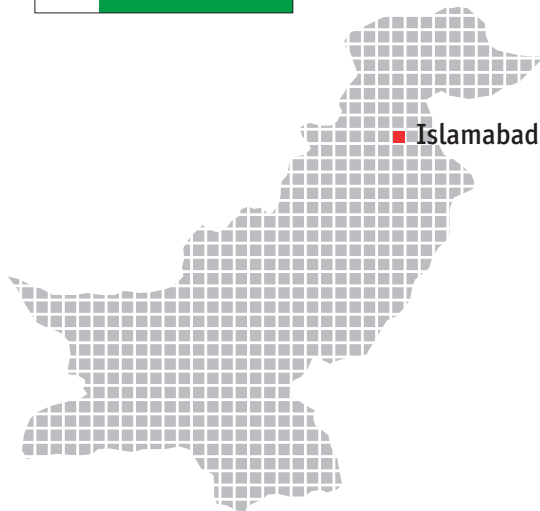
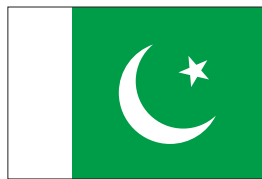
⁷⁰ For example, see: Rahman, Md. Sadequr, "Climate change, Disaster and Gender Vulnerability: A Study on Two Divisions of Bangladesh." *American Journal of Human Ecology*, Vol. 2, No. 2, 2013, pp72-82

⁷¹ Violence Against Women Survey 2011. Bangladesh Bureau of Statistics and the UN Population Fund, 2011.

⁷² World Development Indicators, World Bank 2011.

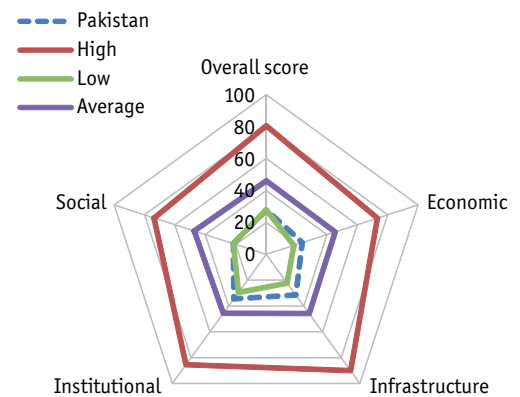
⁷³ Bangladesh Demographic and Health Survey, 2011.

8. Pakistan



Pakistan

	Score/100	Rank/8
Overall score	27.8	8
Economic	23.8	7
Infrastructure	31.5	7
Institutional	34.5	6
Social	21.6	8



Pakistan lags behind other countries in the WRI, reflecting lower equality for women in its economic and social spheres in particular.

The country is highly vulnerable to earthquakes and flooding, with both types of disasters affecting large segments of the population.⁷⁴

Economic category: Of the large South Asian countries in the index, women's access to microfinance schemes in Pakistan is among the lowest, at around 54.7% of borrowers.⁷⁵ Most people remain outside the formal banking system, and only one institution—First Women Bank—appears to offer formal financing options specifically for women—600,000 have received loans from the bank. Women make up just 1.9% of those taking out loans at financial institutions and 3% of those with accounts in 2012-13.⁷⁶ No comprehensive employment schemes guaranteeing employment quotas for women or provision for equal wages to men

exist at the national level. Many people depend on information safety nets from charities or family members, while pension coverage overall is extremely low—at just 4% according to the OECD.⁷⁷ One significant social protection scheme is the government's Benazir Income Support Programme, which is targeted at women beneficiaries and their families and provides income support to a staggering 5.5m families: some 18% of the population in 2012-13.⁷⁸

Infrastructure category: A land-use management system exists, but it is fragmented and sparsely implemented. There is a 2007 building code that is mandatory across the country, but enforcement is inadequate as evidenced by the prevalence of poorly constructed buildings. Pakistan does have an early warning system in place, but dissemination systems and integration between national and community levels remain less developed than in other countries in the index, in part owing to the low penetration of television (60.2%) and radio (10.9%).⁷⁹ The transport infrastructure

⁷⁴ South Asian Disaster Knowledge Network, Pakistan. South Asian Association for Regional Cooperation.

⁷⁵ Percent of women borrowers in Pakistan based on a sample of 28 microfinance institutions reported to MIX Market in 2012.

⁷⁶ Global Financial Inclusion Database. World Bank, 2012-13.

⁷⁷ "Pensions at a Glance: Asia-Pacific 2011". OECD Publishing, 2012.

⁷⁸ See: <http://www.bisp.gov.pk>

⁷⁹ Pakistan Demographic and Health Survey 2012-13, National Institution of Populations Studies.

has suffered from decades of underinvestment and extensive damage from the 2010 and 2011 floods. Still, no evidence of a National Critical Infrastructure Plan exists, particularly pertaining to disaster risk reduction (DRR).

Institutional category: There is a relatively strong “culture of safety” enshrined in policy and planning documentation. The country’s 2012 National Disaster Management Plan indicates that the National Disaster Management Authority should organise drills at the national level and clarifies local authorities’ responsibilities for needs assessment. The frequency of drills that are actually happening at the local level is probably hampered by a lack of resources and awareness, however, according to the national progress report on the Hyogo Framework for Action.⁸⁰ In the event of a disaster, the army has historically taken the lead in response, and there are established protocols and disaster response equipment in place. There are dedicated emergency response units in the police force, where women play a largely secondary role. Only 0.6% of police officers are female in Pakistan as of 2013, according to the Network for Improved Policing in the South Asia, and they face severe restrictions on their duties and roles. Pakistan is party to trans-boundary agreements by virtue of its membership of the South Asian Association for Regional Cooperation. The national platform for multilevel coordination of DRR is very well defined on paper, though institutional capacity remains an effective barrier to implementation.

Women’s access to common property is subject to customary law, and often decided upon by local, male-dominated committees (*jirgas*). These have a tendency to reinforce existing biases against

women’s land ownership and decision-making, as observed by USAID.⁸¹ Sharia law applies to inheritance rights, and women have equal legal rights to property ownership as men, but women continue to face discrimination in practice, and in the enforcement of family and property law.⁸²

Women in DRR policy and planning: Pakistan has integrated a gender perspective in DRR through the disaster management agency’s Gender and Child Cell, which has a mandate to ensure that sensitivity to these groups is reflected in disaster management practices. With respect to the inclusion of women in decision-making, the 2014 National Policy Guidelines on Vulnerable Groups in Disasters recommends the participation of women at all levels of the disaster management system. However, this is not legally provided for, and the guidelines are unclear on the specifics. Needs assessments for female internally displaced persons are also highlighted, and there is an acknowledgement that a lack of mobility hinders women’s participation in all aspects of DRR, but there are no details of a response to such issues. A consideration of gender-based violence is largely lacking from these guidelines, despite an estimated 80% of Pakistani women suffering from some form of gender-based violence.⁸³

Social category: A woman’s freedom of movement is governed by her socioeconomic class, region and whether she lives in an urban or rural setting. Traditional practices have a bearing on the mobility of women in many communities, as exemplified by the low enrolment rates of girls in secondary education—30.9%⁸⁴—indicating that movement remains highly restricted for the majority of women.

⁸⁰ “Pakistan: National progress report on the implementation of the Hyogo Framework for Action (2011-13).” National Disaster Management Authority, Government of Pakistan, May 2013.

⁸¹ Land tenure and property rights portal, Country profile – Pakistan. United States Agency for International Development, 21st September 2010.

⁸² Country Report on Human Rights Practices for 2013: Pakistan. United States Department of State, 27th February 2014.

⁸³ “Freedom in the World 2013” cites this statistic from a study conducted by the Human Rights Commission of Pakistan. The Freedom House, 2013.

⁸⁴ World Development Indicators, World Bank 2012.

Appendix 2: Index methodology

Choosing the indicators

Indicators were chosen using a three-step process. First, the EIU carried out an extensive academic literature review to choose indicators for which there was a sound intellectual basis for measuring a country's resilience at the national level. Second, the EIU consulted with an expert panel as a means of verifying the choice of indicators. Third, the EIU and ActionAid conducted a workshop with stakeholders from various think-tanks, universities and NGOs. The indicators were finalised after considering the inputs from each step in the process.

Types of indicators included

Quantitative indicators: Thirty-one of the Women's Resilience Index's 68 indicators are based on quantitative data. These include, for example, poverty headcount ratios, the female unemployment rate and the number of internally displaced persons (see below for a full list of indicators).

Qualitative indicators: Thirty-eight of the indicators are qualitative assessments of the resilience conferred by different aspects of the countries' environment on the female population. For example "Influence of women in police force", which is assessed on a scale of

0-2, where 0=women in the police force have inadequate opportunities to influence and improve outcomes with respect to resilience, and 2=women in the police force have significant opportunities to influence and improve outcomes with respect to resilience. EIU analysts scored these qualitative indicators based on available data and interviews with experts.

Exposure indicators: There are six indicators that serve as background information. These indicators, such as the number of deaths from disasters over the last 20 years, were collected but not included in calculating the final scores for each country.

Data sources

A team of in-house researchers from the EIU collected data for the index from January to June 2014. Wherever possible, publicly available data from official sources have been used. Primary sources included the World Bank, EIU internal statistics, the IMF and national statistical offices. A complete list of sources is included in the table of indicators at the end of this appendix.

Indicator normalisation

Since the variables are measures in different units, to compare data points across countries,

as well as to construct aggregate scores for each country, the EIU had to make the gathered data comparable. To do so, all indicators were “normalised” on a scale of 0 to 100 using a min-max calculation. Normalisation rebases the raw data to a common unit so that it can be aggregated. The normalised value is then transformed into a positive number on the scale of 0-100 to make it directly comparable with other indicators. This calculation has the benefit of being simple and it does not require a large sample size. Even with a diverse set of countries, normalisation allows us to capture the performance of countries at both ends of the spectrum.

Index construction

The WRI is an aggregate score of all of the underlying indicators, listed below. The WRI is first aggregated by category—creating a score for each subcategory (grey), for example, Country-level economic strength, then for each major category (dark blue), for example, Economic—and finally, overall, based on the composite of the underlying category scores.

To create the category scores, each underlying indicator (light blue) was aggregated according to an assigned weighting. The category scores were then rebased onto a scale of 0 to 100.

List of categories, subcategories, indicators and their weightings in the Index

Indicator (*gender-sensitive or women-specific data)	Unit	Source	Weight
ECONOMIC	Rating 0-100 where 100=best	Weighted sum of sub-category scores	25.0%
Country-level economic strength	Rating 0-100 where 100=best	Weighted sum of indicator scores	33.3%
GDP per capita	PPP international US\$	<i>World Bank, World Development Indicators, (2013)</i>	25.0%
Level of foreign currency reserves	%	<i>EIU IMF International Financial Statistics, World Bank (World Development Indicators), (2012-2013)</i>	25.0%
Poverty headcount ratio	%	<i>World Development Indicators, World Bank, (2009-2013) OECD Factbook 2010: Economic, Environmental and Social Statistics</i>	25.0%
Government funding for disaster relief (per person)	US\$/capita	<i>Various national sources (2011-2013) World Bank, World Development Indicators (2013)</i>	25.0%
Personal finance: Women	Rating 0-100 where 100=best	Weighted sum of indicator scores	33.3%
*Microfinance: Women borrowers	%	<i>MixMarket, 2012</i>	20.0%
Building credit histories	Score (0-8), 8=Best	<i>World Bank and IFC's Doing Business 2014 Index</i>	20.0%
*Women's access to finance programmes	Score (0-5), 5=Best	<i>EIU qualitative assessment</i>	20.0%
*Loans at financial institutions	% females aged 15+	<i>World Bank, Global Financial Inclusion Database (2012-2013)</i>	20.0%
*Accounts at financial institutions	% females aged 15+	<i>World Bank, Global Financial Inclusion Database</i>	20.0%
Labour environment: Women	Rating 0-100 where 100=best	Weighted sum of indicator scores	33.3%
*Employment guarantee schemes for women	Score (0-4), 4=Best	<i>EIU qualitative assessment</i>	50.0%
*Female unemployment rate	%	<i>EIU, World Bank World Development Indicators, ILO Stat Bangladesh Labour Force Survey 2010 Statistical Yearbook 2013 Maldives Nepal Labour Force Survey 2008 Pakistan Employment Trends 2013 Sri Lanka Labour Force Survey 2012</i>	50.0%

Indicator	Unit	Source	Weight
INFRASTRUCTURE	Rating 0-100 where 100=best	Weighted sum of sub-category scores	25.0%
Adherence to land use regulations	Score (0-10), 10=Best	<i>EIU analysis</i>	12.5%
Adherence to building codes	Score (0-14), 14=Best	<i>EIU analysis</i>	12.5%
Communication	Rating 0-100 where 100=best	Weighted sum of indicator scores	12.5%
Penetration of TV	%	<i>Various national sources</i>	25.0%
Penetration of radio	%	<i>Various national sources</i>	25.0%
Mobile cellular subscriptions	%	<i>World Bank, World Development Indicators</i>	25.0%
Availability of an effective early warning system	Score (0-8), 8=Best	<i>EIU analysis</i>	25.0%
Power	Rating 0-100 where 100=best	Weighted sum of indicator scores	12.5%
Quality of power	Score (0-4), 4=Highest Risk	<i>EIU Risk Briefing</i>	50.0%
Access to electricity	%	<i>Environmental Performance Index, Yale University 2014; World Bank World Development Indicators</i>	50.0%
Environmental performance	Rating 0-100 where 100=best	Weighted sum of indicator scores	12.5%
Treatment of wastewater	%	<i>Environmental Performance Index, Yale University, 2014 National sources</i>	28.6%
Pesticide and fertiliser regulation	Scoring (0-24), 24=Best	<i>Environmental Performance Index, Yale University 2014 National sources</i>	14.3%
Loss in forested area	%	<i>Environmental Performance Index, Yale University 2014, National sources</i>	28.6%
Protection of terrestrial and marine areas	%	<i>Environmental Performance Index, Yale University 2014, Maldives Environmental Protection Agency, 2013</i>	28.6%
Sanitation	Rating 0-100 where 100=best	Weighted sum of indicator scores	12.5%
Access to sanitation	%	<i>World Bank, World Development Indicators</i>	33.3%
Wastewater treatment (urban)	%	<i>World Bank, World Development Indicators</i>	33.3%
Wastewater treatment (rural)	%	<i>World Bank, World Development Indicators</i>	33.3%
Quality of transport network	Scoring (1-4), 4=High Risk	<i>EIU Risk Briefing</i>	12.5%
Access to potable water	%	<i>World Bank, World Development Indicators</i>	12.5%
INSTITUTIONAL	Rating 0-100 where 100=best	Weighted sum of sub-category scores	25.0%
Domestic protection	Rating 0-100 where 100=best	Weighted sum of indicator scores	16.7%
*Implementation of CEDAW Convention	Scoring (0-4), 4=Best	<i>EIU analysis</i>	33.3%
Assessment of National Critical Infrastructure Plan	Scoring (0-8), 8=Best	<i>EIU analysis</i>	33.3%
Existence of social safety nets	Scoring (0-6), 6=Best	<i>EIU analysis</i>	33.3%
Culture of safety	Rating 0-100 where 100=best	Weighted sum of indicator scores	16.7%
Drills	Scoring (0-4), 4=Best	<i>EIU analysis</i>	25.0%
Quality of emergency response team	Scoring (0-3), 3=Best	<i>EIU analysis</i>	25.0%
Military force	Scoring (0-6), 6=Best	<i>EIU analysis</i>	12.5%
Police force	Scoring (0-6), 6=Best	<i>EIU analysis</i>	12.5%
*Influence of women in police force	Scoring (0-2), 2=Best	<i>EIU analysis</i>	12.5%
*Women in police force	Rating 0-100 where 100=best	<i>EIU analysis</i>	12.5%
Policy coordination	Rating 0-100 where 100=best	Weighted sum of indicator scores	16.7%
Trans-boundary risk assessment systems and agreements	Scoring (0-4), 4=Best	<i>EIU analysis</i>	33.3%
National platform for multilevel coordination of DRR	Scoring (0-3), 3=Best	<i>EIU analysis</i>	33.3%
Decentralisation	Scoring (0-3), 3=Best	<i>EIU analysis</i>	33.3%

Indicator	Unit	Source	Weight
*Gender focus in DRR policy	Rating 0-100 where 100=best	Weighted sum of indicator scores	16.7%
*Gender perspective in disaster management planning	Scoring (0-2), 2=Best	EIU analysis	20.0%
*Inclusion of women in DRR decision-making and leadership	Scoring (0-3), 3=Best	EIU analysis	20.0%
*Consideration of the needs of female internally-displaced persons	Scoring (0-6), 6=Best	EIU analysis	20.0%
*Inclusion of women in disaster preparedness training	Scoring (0-2), 2=Best	EIU analysis	20.0%
*Measures to address violence against women	Scoring (0-2), 2=Best	EIU analysis	20.0%
Government effectiveness	Rating 0-100 where 100=best	Weighted sum of indicator scores	16.7%
Government corruption	0-100 where 100=best	Transparency International, 2013	14.3%
Quality of the bureaucracy	Scoring (1-4), 4=Highest Risk	EIU Risk Briefing	14.3%
Effectiveness of legal system	Scoring (1-4), 4=Highest Risk	EIU Risk Briefing	14.3%
Well-defined property rights	Scoring (0- 4), 4=Highest Risk	EIU Risk Briefing; World Bank, World Governance Indicators	14.3%
Presence of free and independent media	Scoring (-2.5--+2.5), +2.5=Best	World Bank, World Governance Indicators	14.3%
*Women's access to common property and government-allocated land	Scoring (0-2), 2=Best	EIU analysis	14.3%
*Women's property rights	Scoring (0-3), 0=Best	EIU analysis	14.3%
Violence	Rating 0-100 where 100=best	Weighted sum of indicator scores	16.7%
Violent crime Level	Scoring (1-5), 5=Worst	Global Peace Index, EIU, 2014	25.0%
Trafficking in persons	Scoring (0-4), 4=Worst	Trafficking in Persons Report, US State Department 2013	25.0%
Deaths from organised conflict (internal)	#	UCDP Battle-Related Deaths Dataset v5-2014, Uppsala Conflict Data Program, Uppsala University	25.0%
Deaths from homicides	#	United Nations Office on Drugs and Crime, 2003-2007	25.0%
SOCIAL	Rating 0-100 where 100=best	Weighted sum of sub-category scores	25.0%
Population vulnerability	Rating 0-100 where 100=best	Weighted sum of indicator scores	33.3%
Dependency ratio	ratio	World Bank, World Development Indicators, 2012	33.3%
Internally displaced persons (IDPs)	%	Internal Displacement Monitoring Centre, Global Overview 2014 US Department of State, Human Rights Report Bhutan, 2009 Japanese Red Cross Society, 2013 UNHCR, 2014 World Bank Databank, World Development Indicators, Population 2013	33.3%
*Ease of mobility for women	0-100 where 100=best	EIU analysis	33.3%
Education and gender	Rating 0-100 where 100=best	Weighted sum of indicator scores	33.3%
*Female/male literacy rate	ratio	World Bank, World Development Indicators, 2012	33.3%
*Rate of secondary school enrolment (girls)	%	World Bank, World Development Indicators	33.3%
*Rate of primary school enrolment (girls)	%	World Bank, World Development Indicators	33.3%
Health	Rating 0-100 where 100=best	Weighted sum of indicator scores	33.3%
# of doctors/1000	#/1000	World Health Organization, 2012	16.7%
# of hospitals/land unit	#/sq.km	Bangladesh Health, Family Planning and Social Statistics, 2012 Bhutan Annual Health Bulletin, 2010 Indian Chamber of Commerce, Healthcare, Infrastructure and Services Financing in India, 2012 WHO and Ministry of Health, Labour and Welfare "Health Service Delivery Profile, Japan" 2012 Commonwealth Health Online, Maldives, 2011 Central Bureau of Statistics, Nepal in Figures, 2012 Pakistan Bureau of Statistics, 2012 Annual Health Bulletin 2012, Sri Lanka	16.7%

Indicator	Unit	Source	Weight
Affordability of healthcare	%	<i>World Bank, World Development Indicators, 2012</i>	16.7%
Level of child malnutrition	%	<i>World Bank, 2012</i>	16.7%
Fertility rate	#	<i>World Bank, World Development Indicators, 2012</i>	16.7%
Psychiatric morbidity	#/100,000	<i>World Health Organization Mental Health Country Profiles, 2011-2012</i>	16.7%
EXPOSURE			
Background reference indicators			
Rate of urbanisation	%	<i>United Nations Department of Economic and Social Affairs (UNDESA)</i>	
Population growth	%	<i>World Bank, World Development Indicators</i>	
Death from disasters over the past 20 years	#	<i>The International Disaster Database</i>	
Economic damage from disasters over the past 20 years	'000 US\$	<i>The International Disaster Database</i>	
List of major disasters over the past 20 years	#	<i>The International Disaster Database</i>	
Rate of migration	#/1000	<i>UNDESA, World Population Prospects: The 2012 Revision</i>	



Appendix 3: Interviewees

Interviewees for this report included (listed alphabetically by organisation):

- Abdul Alim, manager for humanitarian response, DRR and climate justice, Bangladesh, **ActionAid**
- Shamima Akhter, gender consultant, **Asian Disaster Preparedness Centre**
- Sepali Kottegoda, chair, **Asia-Pacific Women's Watch**
- Manjeet Dhakal, Least Developed Country (LDC) climate policy analyst, **Climate Analytics**
- Alex de Sherbinin, senior staff associate for research, Centre for International Earth Science Information Network, **Columbia University**
- Suranjana Gupta, senior advisor for community resilience, **The Huairou Commission**
- Vinod Menon, independent consultant and former member, **National Disaster Management Authority, India**
- Christophe Béné, research fellow, Vulnerability and Poverty Reduction Team, **Institute of Development Studies (IDS)**
- Saleemul Huq, senior fellow of the Climate Change Group, **International Institute for Environment and Development (IIED)**
- Lajana Manandhar, executive director, **Lumanti**
- Margaret Alston, head of the Gender, Leadership And Social Sustainability (GLASS) research unit, **Monash University**
- Asher Hasan, founder and chief executive officer, **Naya Jeevan**
- Farhat Sheikh, programme manager, Gender and Child Cell, **National Disaster Management**

Authority, Pakistan

- Santosh Kumar, director, **South Asian Association for Regional Cooperation Disaster Management Centre (SDMC)**
- Hadia Nusrat, gender equality advisor for humanitarian community in Pakistan, **United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and UN Women**
- Madhavi Malalgoda Ariyabandu, Regional Coordinator for Central Asia and South Caucasus, **United Nations Office for Disaster Risk Reduction (UNISDR)**

NB: This list includes only those interviewed for this paper and does not include the numerous experts consulted in the construction of the WRI. Our thanks are due to all interviewees for their time and insights. The contents of this paper and the WRI are the sole responsibility of the EIU.

Appendix 4: Attendees at expert roundtable

ActionAid convened a panel of experts at a roundtable held in Kathmandu, Nepal, on April 9th-10th 2014, co-moderated by the EIU, at which the design of the index and the goals of the project were discussed. Our thanks are due for their insights and advice. The construction of the WRI and the contents of this paper are solely the responsibility of the EIU.

Participants included (listed alphabetically by organisation):

Name	Position	Organisation
Leonie Barnes	Consultant	ActionAid Australia
Melissa Bungcaras	Project Manager/Resilience and DRR Advisor	ActionAid Australia
Sajid Raihan	Deputy Director—Programme, Policy and Campaign	ActionAid Bangladesh
Debabrat Patra	Regional Manager—Lucknow	ActionAid India
Harjeet Singh	International Coordinator, DRR & Climate Adaptation	ActionAid International
Tripti Rai	Human Rights Based Approach Advisor	ActionAid International
Lara Langston	Intern—Resilience and DRR	ActionAid Nepal
Mona Sherpa	Gender Sensitivity	ActionAid Nepal
Suresh Thapa	DRR and Emergency Response Coordinator	ActionAid Nepal
Yusra Qadir	Programme Funding Coordinator	ActionAid Pakistan
Deepayan Basu Ray	Policy Advisor, Resilience and Emergencies	ActionAid UK
Alison Ramp	Policy & Programme Manager—Disaster Risk Reduction	Australian Department of Foreign Affairs and Trade
Hugh MacLeman	Head of Humanitarian Policy	British Red Cross
Sanwar Ali	Senior DRR Advisor	ChildFund Australia
Ram Kishan	Regional Emergency Manager—South Asia	Christian Aid
Chandran Puthiyottil	Coordinator Community Resilience Programmes	Disaster Watch (Network)
Terry Gibson	Operations Director	Global Network for Disaster Reduction
Suranjana Gupta	Senior Adviser—Community Resilience	Huairou Commission
Margaret Alston	EIU Expert Advisory Panel	Monash University
Baghwati Adhikari	Program Coordinator	Nepal Mahila Ekta Samaj
Virginie Le Masson	Research Officer	Overseas Development Institute
Emma Lovell	Research Officer	Overseas Development Institute
Alvin Chandra	Climate Change Advisor	Oxfam Australia

Appendix 5: Reference tables of WRI results

OVERALL SCORE		
1	Japan	80.6
2	Bhutan	46.4
3	Sri Lanka	45.9
4	Nepal	45.2
5	India	42.2
6	Maldives	40.4
7	Bangladesh	40.0
8	Pakistan	27.8

ECONOMIC		
1	Japan	73.2
2	India	55.9
3	Sri Lanka	51.8
4	Bangladesh	48.6
5	Nepal	48.3
6	Bhutan	43.0
7	Pakistan	23.8
8	Maldives	18.2

INFRASTRUCTURE		
1	Japan	90.1
2	Maldives	59.6
3	Sri Lanka	58.3
4	Bhutan	37.5
5	India	35.3
6	Nepal	32.7
7	Pakistan	31.5
8	Bangladesh	22.3

INSTITUTIONAL		
1	Japan	85.5
2	Bhutan	49.7
3	Nepal	47.1
4	Bangladesh	45.4
5	India	41.1
6	Pakistan	34.5
7	Maldives	32.4
8	Sri Lanka	29.4

SOCIAL		
1	Japan	73.7
2	Bhutan	55.6
3	Nepal	52.5
4	Maldives	51.5
5	Sri Lanka	43.9
6	Bangladesh	43.8
7	India	36.4
8	Pakistan	21.6

While every effort has been taken to verify the accuracy of this information, The Economist Intelligence Unit Ltd. cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report.

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