



SUMMARY FOR POLICYMAKERS

Transformation towards sustainable and resilient societies in Asia and the Pacific

People across the Asia-Pacific region live with diverse and interlinked risks. These risks are related to increasingly severe and complex shocks to the political, social, economic and ecological systems that underpin human development. The impacts of such shocks often fall disproportionately on the most marginalized groups and communities, and can undermine the region's efforts to achieve the Sustainable Development Goals.

The ESCAP-ADB-UNDP report *Transformation towards sustainable and resilient societies in Asia and the Pacific* explores the experience of, and challenges facing the Asia-Pacific region. It shows how resilience thinking can strengthen public policy to enable the transformation towards sustainable societies envisaged by the 2030 Agenda for Sustainable Development.



Asia-Pacific
SDG Partnership





This summary

- discusses the complex landscape of risks and resilience in Asia and the Pacific
- points to the implications of selected megatrends in the Asia-Pacific region
- how resilience is related to targets and indicators of the sustainable development goals
- focusses attention on four types of inter-related resilience capacities, providing examples of efforts to strengthen each
- illustrates a three-step approach to incorporating resilience into policymaking by means of a case study on food systems
- draws conclusions for innovative policymaking

The changing nature of risk in Asia and the Pacific

Demographic change, rural-urban transitions, increasing demand for natural resources, globalization and economic liberalization, climate change and technological progress are among the trends reshaping the increasingly complex risk landscape of the region.

These trends and their interactions can have major effects on political, social, economic and ecological systems (human systems), and often act as 'risk-multipliers'. These sources of risk include: the implications of ageing for financial systems; the impacts of rural-urban transitions and commodity shocks on financial and food systems; the looming impacts of pollution on health and productivity; the impacts of a changing climate on provisioning systems, and the potential for social conflict; and the implications of changes in economic structure for dietary patterns and health-care burdens.

Challenges that were once localized can now escalate into global crisis, due to the increasingly integrated nature of human systems. Correspondingly, the impacts on marginalized groups and communities are likely to be complex and unpredictable. These are some of the factors that make the central aspiration of the 2030 Agenda for Sustainable Development – “to leave no one behind” – ever more challenging.

The region's resilience must be tapped more effectively to deal with this complex risk landscape. Resilience enables individuals, communities and systems to

survive, adapt and grow in the face of stress and shocks; to convert risks into opportunities; and to transform when conditions require it. Strengthening resilience requires governance approaches, institutions and policies that are better geared to dealing with risk.

A resilient society does more than bounce back from disruptions and crises by bringing human systems back to their previous state, but also tries to develop solutions that bring about a new state that is more capable of addressing present and future challenges. Two countries with differing resilience capacities and development pathways may respond differently to the same shock (see Figure 1).

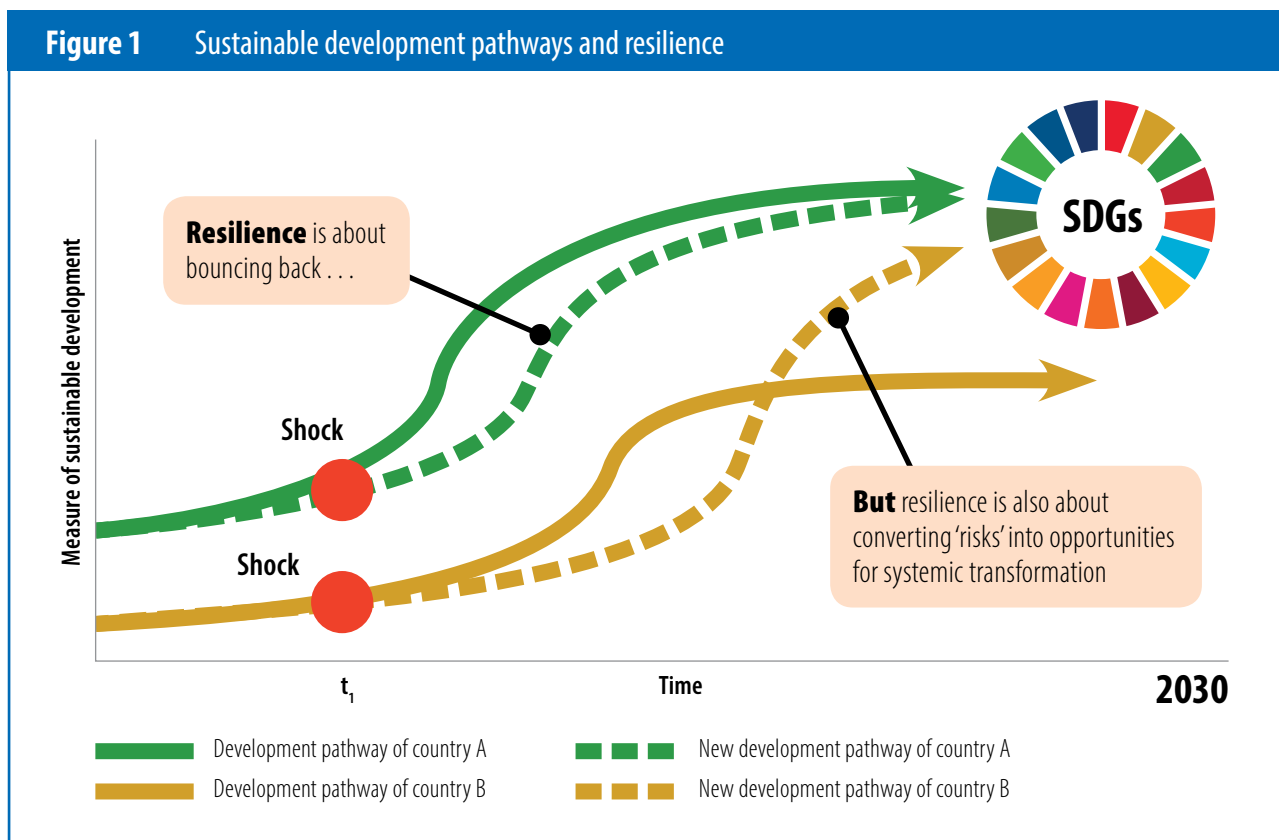
While country “A” may bounce back to its original development trajectory, country “B” may utilize its transformative capacity to undertake systemic changes, enabling a new accelerated development trajectory toward achieving the SDGs.

Systemic transformations in response to shocks can create opportunities to accelerate progress. Such transformations might include a fundamental shift in energy systems to rely on renewable energy sources; societal reorganization that leads to greater female participation in decision-making; or structural transformation away from an extractive industry-based economy.

Some groups or communities are disproportionately exposed to risks and are more vulnerable to the changing risk profile of the Asia-Pacific region. Human systems in Asia and the Pacific are affected by a diverse range of recurrent shocks to which resilience must be built, including:



Figure 1 Sustainable development pathways and resilience



Source: Author's illustration

- Flooding:** Asia and the Pacific is highly vulnerable to the effects of climate change, and highly exposed to natural hazards. Flooding is one of the most pervasive recurrent shocks, affecting South Asia in particular. Between 1970 and 2016, some 35 per cent of floods in the region occurred here; in August 2017 alone, intense monsoon rains affected 40 million people in Bangladesh, India and Nepal, claimed nearly 1,300 lives, put 1.1 million people in relief camps, and brought major cities to a standstill. By some estimates, floods could cost the subregion as much as US\$215 billion each year by 2030.
- Commodity price shocks:** Economic dependence on commodity exports impacts the resilience and vulnerability of financial and social systems and results in high carbon intensity. Oil price slumps in 2014 had severe economic and financial consequences in Central Asia. In Azerbaijan for example, for every 1 per cent change in crude oil prices, household expenditures changed by 0.94 per cent; economic growth rates dropped from 6 per cent to -3 per cent, and financial reserves shrank by 56 per cent in just two years. In some countries, youth unemployment increased. Reliance on oil also results in high carbon intensity, whereas economic diversification can support low carbon development.
- Pollution shocks:** Pollution events that lead to severe, concentrated pollution within a short period of time can pose severe shocks to human systems. Welfare losses from exposure to ambient and household air pollution are estimated to cost South and South-East Asia and the Pacific about 7.5 per cent of regional gross domestic product. Recurrent transboundary smoke and haze in South-East Asia, caused by forest and peatland fires, has had severe social and economic effects in the subregion, affecting people in multiple countries. In 2015 alone, more than 500,000 cases of acute respiratory infection were recorded, while transport and logistics systems were disrupted, resulting in losses of up to US\$1.3 billion, and total losses of about US\$16 billion for the Indonesian economy.

MEGATRENDS IN THE ASIA-PACIFIC REGION

Demographic change

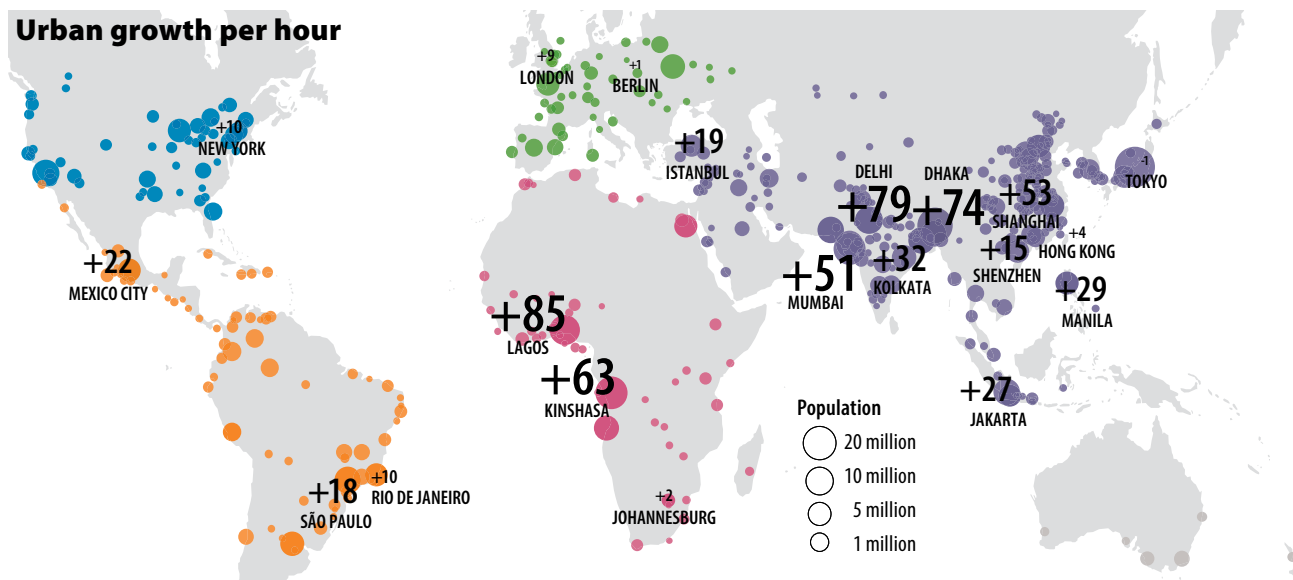
By 2050 in Asia-Pacific:

- The **number of working age persons** per every older person (65+) **will reduce by more than half** compared to 2015
- **1 in 4 people** will be **60 or older**
- From **8.4 workers** for every older person today, there will only be **3.4 workers**¹



Rural–urban transition

- The Asia-Pacific region's urban population grew by nearly **1 billion people between 1990 and 2014**.²
- By 2050, **two-thirds of the population** in Asia-Pacific **will live in cities**.³



Note: Figure shows the increase in number of residents per hour
 Source: Burdett, 2015.

Increasing demand for natural resources

- Domestic consumption per capita has **increased by as much as 270%** in low- and middle-income countries in recent decades.⁴
- Water in particular is facing growing demands: by 2040, **more than 80% of the region's population** will live in countries facing **high water stress**.⁵



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Globalization and economic liberalization

- In 2017, **170 out of 274 trade agreements** in force worldwide involved Asia-Pacific economies.⁷
- In 2016, over **72%** of the intraregional trade between Asia-Pacific economies was covered by agreements.⁸

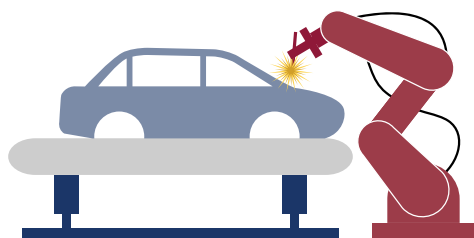


Climate change

- The region's coastal zones are among the **most vulnerable** globally to climate change-related **sea level rise**.⁹
- Climate change is expected to make **food production more difficult and expensive** in the region;¹⁰ rice yields in several South-East Asian countries could **decline by up to 50%** by 2100.¹¹



Technological progress



Technology advances have helped create **30 million** jobs annually in industry and services over the **last 25 years**¹².

- Jobs that require repetitive, routine tasks and workers who do not have the education or training to move easily to other occupations, may face slow growth in wages.

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Resilience in the SDGs

The relevance of resilience can be understood in the context of all SDGs. Several SDGs make explicit links to resilience and numerous goals have targets and indicators that capture dimensions of resilience. Resilience and disaster risk reduction are central to the SDGs, particularly SDGs 1, 11 and 13, and poor people are especially vulnerable to the impacts of natural hazards.

While economic growth can propel people above income poverty lines, shocks (such as natural hazards exacerbated by climate change, industry relocations due to technological change, or health deterioration

due to exposure to pollution) can push people back into poverty. Effective social protection systems, as anticipated under SDG 1, can help strengthen the resilience of individuals and households to stresses and shocks. A resilient society will anticipate potential job losses from technological disruptions, and provide vulnerable populations with training in specific skills that will allow them to find better jobs in other sectors. Current and future vulnerabilities need to be factored into programmes; SDG 9 focuses on the resilience of connectivity infrastructure, particularly transport and information and communications technology. The region will need to adopt more resilient approaches to infrastructure development, with a focus on protecting ecosystems.

Figure 2 Resilience and the SDGs in the Asia-Pacific region

Several SDG targets have indicators related to disaster risk reduction

On average, from 1990–2016, disasters:

- affected **185 million people** each year – meaning 48 in every 1,000 people
- killed **44,000** people each year

Disasters cost the region **\$77.2 billion** in 2016 – equivalent to 0.3 per cent of GDP

19 out of 49 countries* are still to report adopting disaster risk reduction strategies in line with the Sendai Framework



90 million hectares of agricultural land were lost from 2000–2013



\$26 trillion will be needed to develop sustainable and resilient infrastructure between 2016 and 2030

Climate change adaptation already costs **\$41 billion** each year



\$28 billion in official development assistance was provided for infrastructure in 2015



Only **11 per cent** of marine areas are protected

Sources: ADB, 2017; Asia Pacific SDG Partnership Data Portal, <http://data.unescap.org/sdg/#data/>; ESCAP Database, http://data.unescap.org/escap_stat/#data/; UN DESA SDG Indicators Global Database, <https://unstats.un.org/sdgs/indicators/database/>, Icons from the Global Goals for Sustainable Development, <https://www.globalgoals.org/resources>.

Note: * ESCAP member states, excluding non-regional members

Resilience capacities in focus

The actions required to strengthen resilience can be understood in terms of inter-related and complementary resilience capacities:

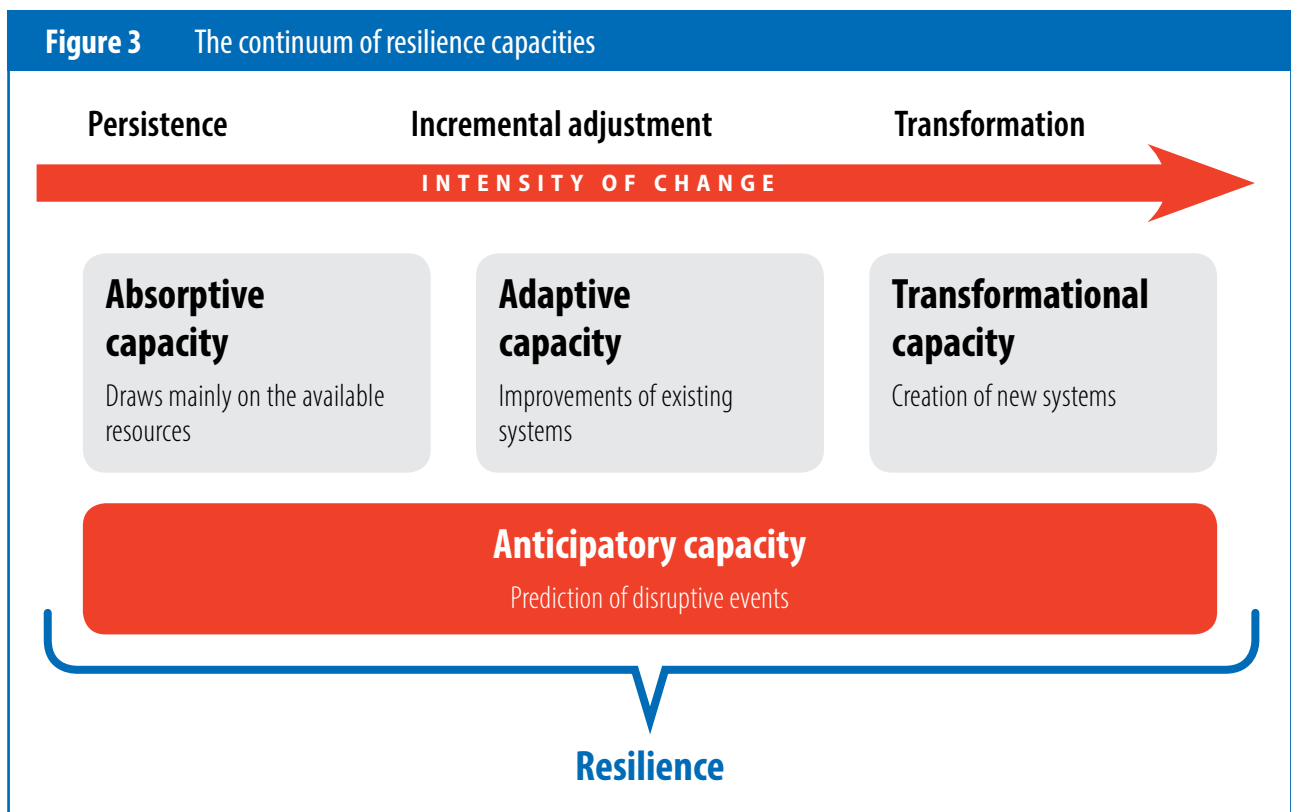
- **Anticipatory capacity:** the ability of human systems to anticipate and reduce the impact of shocks through preparedness and planning.
- **Absorptive capacity:** the ability of human systems to absorb and cope with the impacts of shocks and stresses.
- **Adaptive capacity:** the ability of human systems to change in response to multiple, long-term and future risks, and to learn and adjust after a shock materializes.
- **Transformative capacity:** the ability to take deliberate steps to change systems that create risks, vulnerability and/or inequality.

These four capacities are interdependent; they overlap and complement each other, forming a continuum (see Figure 3) that promotes different levels of

change, ranging from persistence or, no change, through incremental adjustments to transformational changes.

Fortunately, there are encouraging signs that many countries and communities in the region are beginning to build resilience capacities to manage such shocks, and are already realizing the benefits. There are also initial signs that countries are starting to look at policies and systems to build transformative capacities. There are many examples of successful strengthening of resilience through appropriate actions.

- **Anticipatory capacity:** Knowledge, information and experience are essential elements of anticipatory capacity, and education and effective communication also play a vital role. Many countries have set up early warning systems to help them avoid or reduce the impact of hazards such as floods, landslides, storms and forest fires. However, the realization of anticipatory capacity requires translating information and knowledge into action, and needs to take social, cultural and gender considerations into account.



Source: Adapted from Béné and others, 2012, and Tanner and others, 2017



- **Adaptive capacity:** Diverse efforts that build adaptive capacity by reducing exposure and vulnerability are underway across the region, using a variety of measures including prudent macroeconomic and fiscal policies, integrating risk information into key sectoral policies. Most countries have begun to incorporate climate risk into national and sectoral planning, including through National Adaptation Plans and Nationally Determined Contributions, and in some cases, this information is being used to determine resource allocation. There are also more localized examples of building adaptive capacity. Further, diversifying income sources and forms of capital can help to build resilience at individual and household levels.
- **Absorptive capacity:** One crucial aspect of building absorptive capacity is to increase the options through which basic needs can be met in times of crisis. Many countries in the region are investing in social protection systems that can help build general resilience by providing income and health security, in particular to vulnerable populations. Some countries have universal old-age pension coverage.
- **Transformative capacity:** While much more needs to be done to achieve transformation towards the sustainable development required in the region, there are examples of important steps to change the underlying systems and build the capacity to make deliberate change. Examples include the transfer of responsibility for forest management to the communities that rely on these forests for their livelihoods, and the amendment of policies and regulations to promote renewable

Table 1 Government policies and programmes for building resilience in the Asia-Pacific region

Type of resilience capacity	Macroeconomic and sectoral policies	Targeted policies and social protection	Examples of projects and programmes
Anticipatory	<ul style="list-style-type: none"> • Education policies • Information and communications policies 	<ul style="list-style-type: none"> • Early warning systems 	<ul style="list-style-type: none"> • Fighting dengue fever through information, Philippines
Adaptive	<ul style="list-style-type: none"> • Macroeconomic policies (e.g. fiscal, monetary and exchange-rate policies) • Sectoral policies (e.g. agriculture) • Climate change and disaster risk reduction policies 	<ul style="list-style-type: none"> • Social security policies • Targeted price subsidies • Public health • Access to microfinance schemes • Minimum wage and labour market policies 	<ul style="list-style-type: none"> • Managing financial crises, Republic of Korea • Small-scale farmland water conservancy construction, China • Sustaining agricultural biodiversity in the face of climate change, Tajikistan • Financial remittances for building the adaptive capacity of flood-affected households, India • Creating a resilient community, Fiji
Absorptive	<ul style="list-style-type: none"> • Migration and remittance policies • Social policies 	<ul style="list-style-type: none"> • Social protection programmes • Food-for-work programmes 	<ul style="list-style-type: none"> • Enhancing resilience to natural hazards and the effects of climate change, Bangladesh • Income and health security, Thailand
Transformative	<ul style="list-style-type: none"> • Climate change policy • Energy policy • Forestry policy 	<ul style="list-style-type: none"> • Women’s empowerment policies and programmes 	<ul style="list-style-type: none"> • Community forestry management, Nepal • Response to 2015 outbreak of MERS, Republic of Korea • Transformation towards renewable energy, Philippines



and clean energy. Larger-scale transformations can be triggered in response to a crisis, as in the case of public health emergency responses that

have triggered a series of interventions, from creating awareness to planning and putting a new public health emergency system in place.

Applying a three-step approach: the case of food systems¹

The report proposes a three-step approach for incorporating resilience into policymaking, by: (1) identifying risks; (2) exploring the potential impacts on human systems and vulnerable groups; and (3) identifying policies and institutional responses that build resilience capacities. This approach is illustrated through the case of food systems below.

<p>Step 1</p>	<p>What are the drivers of risk to regional food systems?</p> <p>Food systems, especially in the low-income countries in the Asia-Pacific region, are increasingly vulnerable to climate change, as well as to demographic change-induced risks, including issues such as flooding, drought, and changes to pestilence patterns. Climate change is expected to reduce yields and increase the cost of staple foods².</p>
<p>Step 2</p>	<p>How do these drivers impact the food system and who is most vulnerable?</p> <p>Trade systems are integral to regional food systems. Analysis of the resilience of staple food commodity trade networks reveals that between 1986 and 2015³ 73 per cent of these Asia-Pacific networks showed signs of weakening resilience, becoming more reliant on fewer countries for their food imports. The combination of increasing vulnerability and reduced resilience within food systems points to an increasing risk of food supply disruptions, including through food price fluctuations. Past food price shocks have shown detrimental impact on the poor and children, especially those facing risk of malnourishment^{4, 5}. These vulnerable groups and communities should be placed at the core of society's efforts to strengthen resilience.</p>
<p>Step 3</p>	<p>How can we strengthen resilience capacities to address emerging risks?</p> <p>In terms of anticipatory capacity, the region needs to closely monitor the emerging effects of climate change on its key food production areas and issue early warnings on any climate anomalies. Community- or national-level food stocks can be created to tide over any unexpected food shortages can help absorptive capacity and in using these stocks there should be vulnerable groups identified in step 2. In building adaptive capacity, plans related food security, as well as climate change adaptation strategies, need to reflect these potential impacts, particularly in the food production areas that are most vulnerable to climate change. An intervention to harness the transformative capacity would be integrating strategic provisions within trade agreements to increase the resilience of trade networks of critical food commodities</p>

1 Author's compilation, using data from Kharrazi, 2018 (see 4), and the University of Notre Dame Global Adaptation Index ND-GAIN (2016). Notre Dame Global Adaptation Initiative Index. Available at <https://gain.nd.edu/our-work/countryindex>.

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5 See 1.



In conclusion – towards transformation

The 2030 Agenda for Sustainable Development states global leaders' determination to "take the bold and transformative steps needed to shift the world on to a sustainable and resilient path". Transformation requires breaking through the 'path dependency' that defines the way things are done. Some of the factors that supported transformation in the case studies discussed in the ESCAP-ADB-UNDP report on Transformation towards Sustainable and Resilient Societies in Asia and the Pacific included: a fundamental rethink of the way in which natural resources were allocated and managed, the ability to bring diverse stakeholders together around a single goal, and the ability to access and generate knowledge in new ways.

Transformation requires the activation of all forms of resilience capacities discussed in the report. At the same time, there can be a trade-off between adaptive capacity and transformative capacity, if short-term adaptive measures pre-empt the deeper thinking needed to implement transformative strategies.

Action to promote transformation must address the factors that can make even incremental changes difficult. Three key barriers to transformation are identified: Firstly, inadequate human and institutional capacity; secondly, institutional rigidity, which diminishes institutions' capacity to evolve; and thirdly, inadequate social momentum for change. Socio-cultural factors, gender and other dimensions of inequality, and imbalances in access to decision-making also affect prospects for transformation by reducing opportunities to build social momentum for change.

Four strategies for transformation towards sustainable and resilient societies are proposed by the report:


- 1) **integrate transformative learning approaches in the policy cycle, strengthening the policy feedback loop;**
- 2) **deepen social engagement to promote more effective, sustainable and inclusive policy outcomes and promote stakeholder support for change;**
- 3) **connect poverty alleviation, sustainability and resilience strengthening objectives with economic objectives through promotion of social enterprise; and**
- 4) **diversify finance and investment channels to maximize options when crisis strikes, or opportunities arise, and to promote inclusion.**

These strategies can be informed by some basic resilience principles introduced in the report: maintain diversity and redundancy; manage connectivity; manage 'slow' variables (such as ageing) and feedbacks; foster complex adaptive systems thinking; encourage learning; broaden participation; and promote polycentric governance systems.

The Regional Road Map for Implementing the 2030 Agenda for Sustainable Development in Asia and the Pacific⁶ and the many international agreements that countries in the Asia-Pacific region have signed – not least the 2030 Agenda – provide a framework around which discussions can be based, efforts coordinated, and progress measured. There is every reason to believe that the Asia-Pacific region can increase the resilience of its societies and pursue development pathways that truly leave no one behind.

⁶ Adopted at the Fourth Asia-Pacific Forum on Sustainable Development. See <http://www.unescap.org/events/apfsd4> and <http://www.unescap.org/publications/regional-road-map-implementing-2030-agenda-sustainable-development-asia-and-pacific>





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The Asia-Pacific SDG Partnership

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