

DISASTER RISK REDUCTION FRAMEWORK

APEC Strategy to Building Adaptive and Disaster-Resilient Economies

Context

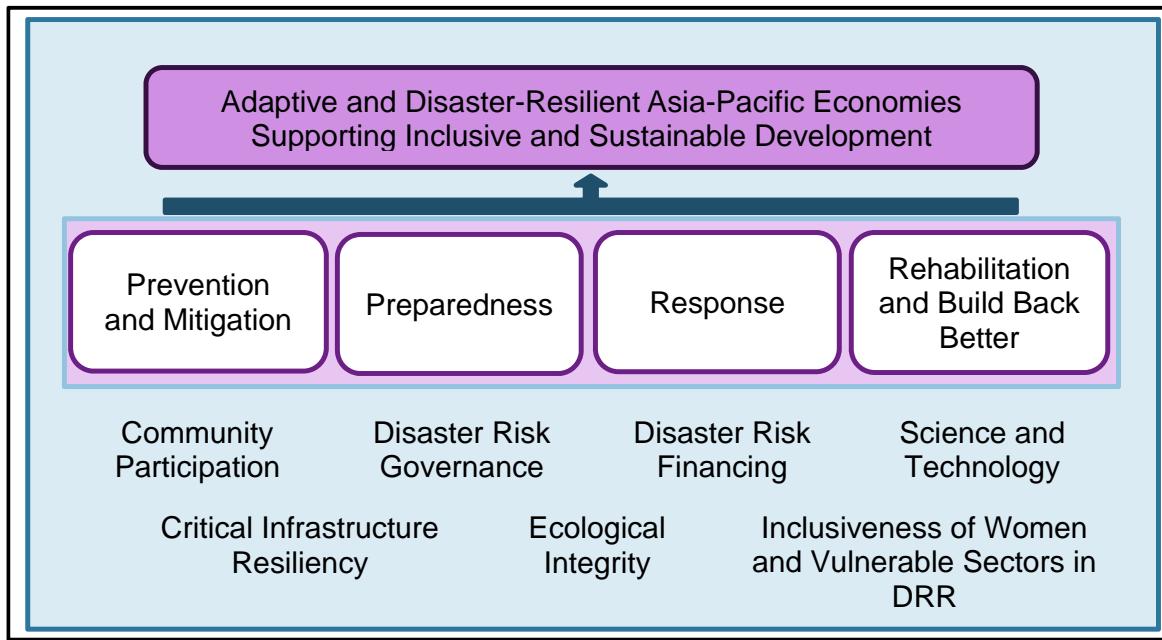
1. The APEC leaders, in their past declarations and statements, have expressed their commitment to address natural disasters, which remains as one of the major challenges confronted in the region (**ANNEX A**). They have consistently recognized the high vulnerability and exposure of the region to disasters due mainly to its geographic situation. Most APEC economies are situated in the Pacific Ring of Fire, where strong earthquakes, tsunamis, and volcanic eruptions pose constant threats. The region has the most active tropical cyclone formation in the world in terms of frequency, including the Category 5 cyclones or super typhoon occurrences per year. These conditions are further exacerbated by climate change. The Asia-Pacific Region is experiencing temperature changes in the Pacific Ocean, resulting in El Niño and La Niña phenomena.
2. We now face a “new normal” that is characterized by at least two phenomena: the increasing frequency, magnitude and scope of natural disasters, and the resultant disruption on the increasingly integrated and interlinked production and supply chains. This “new normal” disrupts the free flow of trade and investments across economies; and presents tremendous challenges and serious threats to the inclusiveness and sustainability of growth and development in the region. As per the World Bank estimate, the APEC economies have incurred disaster-related losses of over \$100 Billion every year for the last ten years.¹
3. We noted the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030, which recognizes the significant role of regional cooperation in addressing the threat of the “new normal”. It is now an opportune moment for APEC to develop an APEC-specific Disaster Risk Reduction (DRR) Framework, based on current APEC work and other relevant international arrangements, where appropriate, that focuses on the conditions in APEC economies.

Purpose of APEC DRR Framework

4. The APEC Disaster Risk Reduction Framework aims to contribute to adaptive and disaster-resilient Asia-Pacific economies that can support inclusive and sustainable development in the face of disasters and the “new normal”.
5. The core of this Framework is the clear recognition that addressing the impacts of disasters requires holistic, more proactive, multi-stakeholder, multi-sectoral and strategic interventions to make our economies more resilient. Under this Framework, the APEC community can collectively identify and explore areas for enhanced cooperation.
6. This APEC Framework cuts across all areas of the APEC agenda, including agriculture; forestry; fisheries; trade and investments; energy; micro, small, and medium enterprises (MSMEs); infrastructure development; critical infrastructure resiliency; financial resiliency; human capital; health; gender; food security; science and technology; and ecological integrity.

The APEC Disaster Risk Reduction Framework

¹ World Bank, Presentation to the APEC Senior Finance Officials’ on “Regional Catastrophe Risk Pooling among APEC Members,” 12 June 2015.



Four Pillars of APEC Disaster Risk Reduction

7. The APEC Disaster Risk Reduction Framework consists of four interoperable and mutually reinforcing pillars, namely: Prevention and Mitigation, Preparedness, Response, and Rehabilitation and Build Back Better. These pillars correspond to the four elements vital for ensuring achievement of the overall aim to have adaptive and disaster-resilient APEC economies (**ANNEX B**).

Enabling Environment for APEC DRR

8. The APEC Disaster Risk Reduction Framework should work effectively within an enabling environment anchored on Community Participation, Disaster Risk Governance, Disaster Risk Financing, Innovations on Science and Technology, Critical Infrastructure Resiliency, Ecological Integrity, and Inclusiveness of Women and Vulnerable Sectors (**ANNEX C**).

Areas for Collaboration

9. Building on the substantial DRR-related efforts that APEC has carried out over the years and involving all relevant APEC fora, the APEC Framework identifies key areas for collaboration (**ANNEX D**).
10. The private sector, through the APEC Business Advisory Council (ABAC) and local and regional businesses, plays an essential role in this APEC Framework. Sustainable development highly encourages collaboration between the public and the private sectors in recognition of their shared responsibility towards disaster resiliency. As an example, the continuity of businesses and MSMEs largely depends on the efforts of our private sector partners. Their continued and sustained contribution toward the development of liveable cities and sustainable communities, resilient supply chains, infrastructure connectivity, and energy will help ensure the success of DRR cooperation and its requisite interventions.

Call to Action

11. Taking into account the Asia Pacific region's vulnerability to natural hazards and the "new normal", there is a need to encourage collective action in ensuring the free flow of trade, investments and tourism across economies. It is further recognized that establishing a common APEC DRR platform among the member economies to supplement and complement other efforts to achieve their goals and targets, will be beneficial to the economies.
12. To translate into action the vision and declarations of our Leaders for DRR collaboration, and to move towards enhancing disaster resiliency in the Asia-Pacific region, the following actions are hereby called for:
 - 12.1. We endorse and recommend the elevation of this Framework to the APEC Leaders, subject to the consideration of the APEC Ministers, to facilitate collective work in building resilient communities in the face of the new normal and to serve as one of the foundations for dynamic and sustainable growth. To achieve this, we call for the conduct of regular high level policy dialogues or other higher options for APEC engagements focusing on DRR.
 - 12.2. We encourage cooperation with other relevant organizations to promote regional efforts in emergency preparedness and disaster risk reduction.
 - 12.3. We encourage efforts to strengthen cooperation in dealing with disasters as embodied in the APEC DRR Framework. In this light, we welcome voluntary joint commitments and/or voluntary multi-party arrangements between economies and partners toward DRR, as deemed suitable and where appropriate, in recognition of the unique context, situation, and nuances in member economies.
 - 12.4. We commit to develop an Action Plan based on current APEC work and other relevant international arrangements, where appropriate, that will serve as the implementation, monitoring and evaluation tool of APEC for the realization of this Framework and contribution to the attainment of our common disaster resiliency goals. Thus, the Action Plan will require identification of a set of targets contextualized at the Asia Pacific region, specifically within the economies perspective. The Plan and targets will also complement but not duplicate the efforts progressed in this area through other international arrangements. The Emergency Preparedness Working Group shall coordinate the development of the Action Plan and be the mechanism that will encourage individual economies to develop specific, measurable, and timed contributions for the attainment of the Action Plan's overall objectives. Consistent with APEC guidelines, the Action Plan will be formulated to include appropriate monitoring and evaluation tools that will help measure the activities implemented.

ANNEX A – APEC LEADERS’ PAST DECLARATIONS AND STATEMENTS

1. The Asia-Pacific Economic Cooperation (APEC) was established based on a spirit of community among the peoples of the Asia-Pacific region. This spirit of community, which our Leaders enunciated at Blake Island, Seattle in 1993, inspires us to collectively search for solutions to the common challenges that we face. The vision of an APEC community became clearer when our Leaders committed in 1994 in Indonesia to attain the Bogor Goals of free and open trade and investment. Further, at Subic, Philippines in 1996, our Leaders upheld sustainable growth and equitable development as the ultimate objectives of our individual and collective endeavors. Today, almost 20 years since, APEC faces both a challenge and an opportunity to demonstrate with renewed vigor this spirit of community in finding cooperative solutions to the common objects and pressing threats of the many hazards in the Asia-Pacific region.
2. In 1997, our Leaders acknowledged in Vancouver, Canada the collective impact of disasters on the APEC economies. When a disaster strikes in one APEC economy, the rest of the community is affected.
3. In 2007, our Leaders reiterated in Sydney, Australia their recognition of the region’s vulnerability to disasters by highlighting the nexus among economic growth, energy security, and climate change. They committed to bold aspirational targets including reducing energy intensity by at least 25% by 2030 (later increased to 45% by 2035 in 2011) and increasing the forest cover in the region by at least 20 million hectares by 2020.
4. In 2008, our Leaders articulated in Lima, Peru the importance of promoting disaster risk reduction (DRR) through the adoption of the APEC Principles on Disaster Response and Cooperation. They reiterated the need for cooperation on DRR among our economies.
5. In 2009, our Leaders recalled in Singapore the targets set forth in 2007 and committed to enhance work to meet those targets. Further, the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), which all ten member states of ASEAN ratified in 2009, also served as useful and ground-breaking guide in developing effective and comprehensive regional DRR mechanisms.
6. In 2010, our Leaders reiterated in Yokohama, Japan their commitment to take strong and action-oriented measures to address the threat of global climate change. They committed to develop practical disaster risk management mechanisms to strengthen the ability of our economies to manage emergencies and natural disasters.
7. In 2011, our Leaders pledged in Honolulu, Hawaii to involve the private sector and civil society in APEC’s emergency preparedness efforts.
8. In 2012, our Leaders expressed in Vladivostok, Russia the support for further steps such as facilitating business continuity and resiliency planning, especially among small and medium enterprises; establishing common standards for emergency early warning systems in cross-border transportation; and promoting integrated disaster risk financing policies.
9. In 2013, our Leaders articulated in Bali, Indonesia the need to undertake urgent actions to prevent the grave economic consequences of natural and human-induced disasters.
10. In 2014, our Leaders agreed in Beijing, China to encourage further enhance cooperation including more robust networking among disaster management agencies, improving

supply chain resiliency, reducing barriers to the movement of emergency responders and humanitarian relief across borders, increased data sharing, and the application of science and technology.

ANNEX B – FOUR PILLARS OF DISASTER RISK REDUCTION

1. *Prevention and Mitigation.* This pillar includes the identification and evaluation of existing hazards, vulnerabilities, and exposure of communities and livelihoods. Based on the identified hazards and risk evaluation, proactive structural and non-structural measures need to be identified, evaluated, prioritized, funded and undertaken to mitigate the impact of disasters.
2. *Preparedness.* This pillar pertains to the series of multi-sectoral and multi-level measures that help ensure and enhance the state of readiness of APEC economic systems and communities as the pillar's main goals minimizing damage to infrastructure and property, and enhancing capacity to build back better. Preparedness harnesses regional cooperation to strengthen early warning mechanisms for transboundary hazards in the region such as tsunamis and typhoons. This pillar focuses on establishing and strengthening the capacities of communities to anticipate, cope, and recover from the negative impacts of disasters. It involves enhancing urban and rural planning using risk and hazard mapping techniques and information, and strengthening critical infrastructure, including social and cultural infrastructure. It involves cooperation between government and businesses to increase the resilience of supply chains. It includes utilizing current and advanced Information and Communications Technologies for comprehensive disaster management system. It also includes the development and promotion of financial tools, such as microinsurance and catastrophic risk insurance, to help protect households, Micro, Small, Medium Enterprises (MSMEs), livelihoods such as agriculture, critical infrastructure, and communities from the financial and economic losses that each disaster brings, and promotion of business continuity planning.
3. *Response.* This pillar focuses on engaging stakeholders of the affected economies in operational interventions immediately after a disaster. It involves the identification and assessment of impacts to the economy and marketplace following the disaster and the implementation of response programs, such as but not limited to the provision and replenishment of lost purchasing power to affected consumers, procurement of relief goods and services from business and people closest to the disaster area, and provision of immediate needs through market-based solutions so that economic recovery is stimulated while immediate relief is provided. It also covers clearing of bottlenecks in supply chain to get emergency goods in and out or businesses back online.
4. *Rehabilitation and Build Back Better.* This pillar aims to enable disaster-affected communities to rehabilitate and build back better by ensuring minimal disruption in livelihood and other economic activities; fast-tracking the rehabilitation of affected economic activities after a disaster; fostering education continuity; rehabilitating affected ecological ecosystem; and improving the overall living conditions of affected and at-risk communities and businesses. The principle of Build Back Better is at the core of APEC's efforts to address the challenges of the new normal. It entails a shift from simple recovery and restoration; to safer, more adaptive, resilient, and inclusive communities. Drawing from recent experiences, the immediate rehabilitation of MSMEs and businesses on the ground proved to be crucial in ensuring faster rehabilitation and moving forward after a disaster. This is where a responsive business continuity plan becomes most important. In this light as well, disaster risk financing plays a critical role because it can help provide easy access to financial resources at a time when MSMEs, businesses, and communities need them most. Immediate access to financing will empower affected communities and enable them to recover and build back better within a shorter duration.

ANNEX C – ENABLING ENVIRONMENT FOR DISASTER RISK REDUCTION (DRR)

1. *Community Participation.* DRR interventions are most effective when the affected communities and economic actors are actively engaged in each phase of DRR by improving collaboration between employers and employees and producers and consumers. They should be empowered by providing them with the necessary information to reduce the risk, prepare, cope and recover from disasters and by actively involving them in planning and program design and implementation. Fostering action at the local level should also help ensure the inclusivity and sustainability of DRR.
2. *Disaster Risk Governance.* Disaster risk governance anchored in a whole-of-society and ecosystem-based approach provides the foundation for the effective implementation of a DRR framework. This approach entails streamlining and fostering collaboration and mutual reinforcement across mechanisms and institutions, not only domestically but in the whole Asia-Pacific community. It is important to encourage collaboration between public and private sectors in creating incentives and supporting policies and actions that encourage risk reduction.
3. *Disaster Risk Financing.* Strong financial systems and tools provide a stable backbone for a DRR framework. These systems should help community prevention, mitigation, preparedness, and recovery to disasters by providing access to resources that supports management of impacts on people, the economy, and ecological systems. Disaster risk financing, such as insurance, should incentivize DRR actions and policies.
4. *Innovations in Science and Technology.* Science and technology offer innovative solutions and approaches that are indispensable in responding to the complex challenges of the new normal. Science and Technology can now be used to identify the level of disaster risk which is a consideration for economic investment in infrastructure, production, and distribution by both the public and the private sector. Harnessing scientific and technological innovations through an enabling, science-based policy environment can lead to more timely, accurate, and responsive weather forecasts, hazard mapping, disaster mitigating and resilient technologies, and continuing development of new food technologies as well as developing solutions to changing climate patterns affecting agricultural production, health conditions, and the strength of critical infrastructure and lifelines. Utilizing current and advanced Information and Communications Technologies for the disaster management system will enhance preparedness for natural and human-induced disasters.
5. *Critical Infrastructure Resiliency.* The resiliency of critical infrastructure is vital to ensuring the successful implementation of this DRR framework. Critical infrastructure includes water, energy, transportation, road networks, communication, public health, and financial services. Together, this infrastructure ensures the continuity of supply chains which empower the economies of APEC members.
6. *Ecological Integrity.* Preserving ecological integrity through conscious environmental management, conservation, rehabilitation, and protection is expected to minimize the vulnerability and risks that APEC communities are exposed to in the APEC region. It also helps to ensure the resiliency of communities, which would reduce the potential disruptions caused by disasters.

7. *Inclusiveness of Women and Vulnerable Sectors in DRR.* DRR should take a holistic, proactive, multi-stakeholder, whole-of-society based approach inclusive of the different concerns and perspectives of women, youth, the elderly, persons with disabilities (PWDs) and other sectors. Addressing the needs of women and vulnerable groups in DRR is critical to ensuring resiliency of communities. It is thus imperative that the vulnerabilities, needs, and capacities of women, youth, elderly, PWDs and other vulnerable sectors be assessed to address their specific needs. Platforms for their engagement in planning process, and policy- and decision-making activities should also be established and sustained.

ANNEX D – AREAS FOR COLLABORATION

- 1. Prevention and Mitigation**
 - a. Utilization of science, technology and research to prepare for, prevent and mitigate disaster impacts;
 - b. Promotion of open access to non-sensitive risk and hazard mapping information, which is understandable and easily accessible for households, communities, businesses, and governments to ensure making appropriate decisions;
 - c. Identification of vulnerable and hazardous areas, and taking mitigating steps to reduce disaster risks of affected communities.
 - d. Conservation of ecosystems, e.g., wetlands, mangroves, dunes, forests, that can provide natural protection to reduce the vulnerability of and risks in APEC communities;
 - e. Enhancement and harmonization of infrastructure standards to make them responsive to the increased frequency and impact of disasters and the “new normal”; and
 - f. Facilitation of the establishment of appropriate mechanisms and tools to finance investments in prevention, mitigation and risk transfer, in collaboration with the private sector, particularly the capital markets and insurance industry.
 - a.
- 2. Preparedness**
 - a. Voluntary sharing of non-sensitive information and best practices to improve early warning systems and development of comprehensive disaster risk management systems utilizing current and advanced science and technology as well as Information and Communications Technologies;
 - b. Capacity-building and voluntary technology-transfer to sustain the development, improvement and exchange of important Disaster Risk Reduction (DRR) skills, knowledge, and technologies, as mutually agreed;
 - c. Emphasis of government and business cooperation in a whole-of-society approach to preparedness;
 - d. Development of financial and enterprise tools that are suitable to the DRR goals and objectives of APEC communities; and
 - e. Building resilience of Micro Small Medium Enterprises, livelihoods and businesses against disasters through responsive business continuity plans and microinsurance, among others.
 - b.
- 3. Response**
 - a. Establishment, engagement in and promotion of joint and/or collective emergency response policies taking into account recognized international and regional humanitarian response procedures, where appropriate, to reduce barriers to the movement of emergency responders and humanitarian relief across borders;
 - b. Utilization of communication mechanisms to expedite the flow of goods after transportation disruptions in order to assist in trade recovery;
 - c. Encouragement of appropriate donations after disasters in order to expedite the movement of goods and reduce chokepoints in the supply chain; and
 - d. Promotion of market-based response mechanisms/approaches to address impacts to markets and economic systems.
 - c.
- 4. Rehabilitation and Build Back Better**
 - a. Mainstreaming of DRR and climate change adaptation into local and economy-level development planning;
 - b. Promotion of local level action for long-term and sustained impact of DRR interventions;

- c. Promotion of coherence and mutual reinforcement among local, economy-level, regional, and global DRR policies and programs; and
- d. Ensure gender, age and disability-responsiveness of DRR policies, plans, and programs.