

BUSINESS CONTINUITY PLANNING FOR CLIMATE RESILIENT INDUSTRIES

Supporting countries in applying Japanese knowledge to build climate resilient industries



Photo: primeimages

AT A GLANCE

Region: Global

Risks:

Earthquakes, floods, droughts, heatwaves, and coastal storm surges

Areas of Engagement:

Promoting resilient infrastructure, Deepening financial protection, Deepening engagements in resilience to climate change

Industries and their supporting infrastructures (e.g., industrial zones, ports, roads, power, water supply and sewerage) have been key in creating jobs, catalyzing investments, and bringing technological advancements into countries. However, extreme weather events and more recently a viral pandemic threaten industries and national economies. While the importance of safeguarding industries against disasters and climate risks is being increasingly recognized, many governments and firms still face barriers to undertaking the proactive measures necessary to enhance resilience.

Through a US\$1 million grant, the **Japan-World Bank Program for Mainstreaming Disaster Risk Management (DRM) in Developing Countries** has supported the development of a global knowledge program leveraging the extensive experience and expertise of Japan's diverse resilient industry approaches.

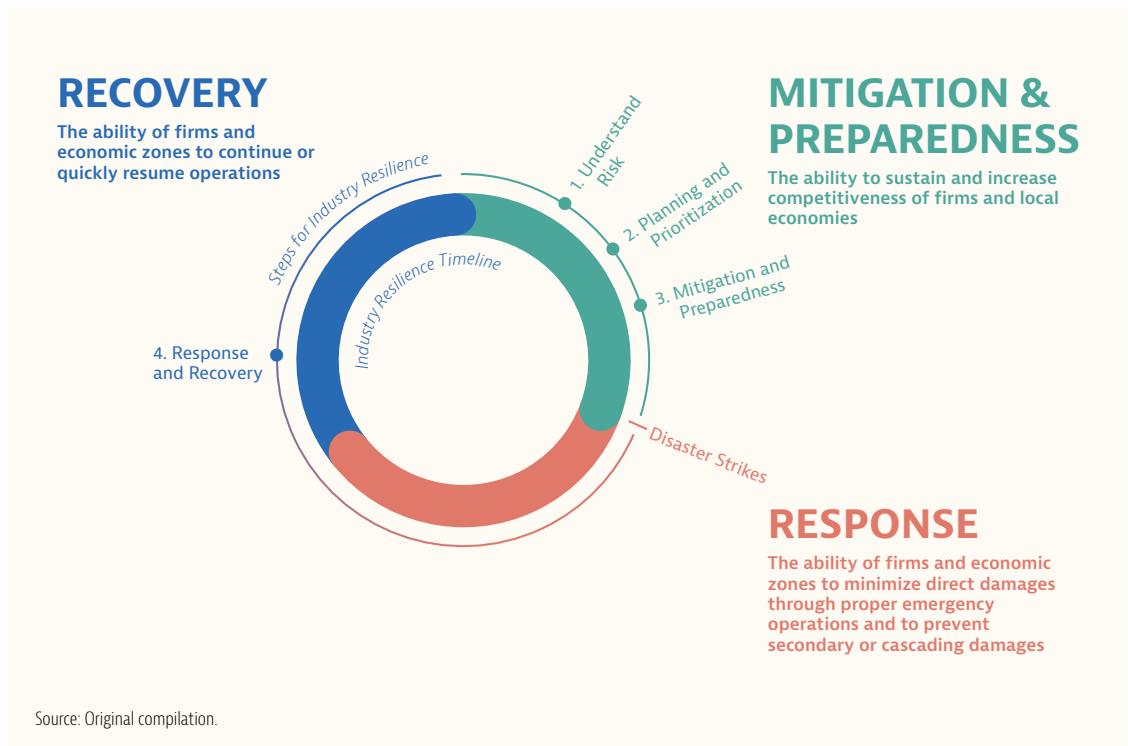
Japanese industries have experienced various shocks and disruptions to economic development throughout their history due to exposure to various natural hazards. As such,

approaches to promoting industry resilience are diverse, reflecting the types of hazards and risks they aim to manage, as well as who acts and why, and what types of tools and mechanisms are utilized. One approach to promoting industrial resilience is business continuity planning and management (BCP and BCM). The aim of BCPs/BCM is to maintain priority operations under any type of emergency

LEARNING FROM JAPAN: BUSINESS CONTINUITY PLANNING AND MANAGEMENT

BCPs and BCM in firms and institutions first gained attention in Japan after the September 11 attacks in 2001 in the United States, when the operations of some multinational firms and financial institutions in Japan were affected. After the devastating experience of the Great East Japan Earthquake (GEJE) in 2011, a 3.5 percent contraction in the economy and its significant impact on firms and supply chains, BCPs were further mainstreamed by the national government as a key approach to promoting industry resilience and competitiveness. For example, the Japanese

RESILIENT INDUSTRIES: A TIMELINE OF KEY ACTIONS



Cabinet Office has been providing guidance to firms and institutions on how to assess and evaluate risks for their BCPs and BCM within its Business Continuity Guidelines.

By developing BCPs/BCM, Japanese companies identify and implement measures that can minimize losses and damages and enhance post disaster response and recovery capacity by outlining what needs to be done after a disaster event. A 2014 study showed that Japanese manufacturing companies that had introduced BCPs experienced less damage to sales following the GEJE and contingency planning in advance of disasters had helped firms recover more quickly than those without such plans showing how preparation for disasters can pay off in the long run ¹.

While the emergence of resilience as a global discourse is timely, industry resilience is a nascent discipline and frameworks for its

application and operation remain limited even as threats intensify.

APPLYING JAPANESE LESSONS

To address this critical knowledge gap related to industrial resilience, the technical assistance team began by gathering Japanese knowledge and their experiences of industrial development in the face of diverse disaster risks with the aim of providing a cohesive framework and applicable solutions for both World Bank task teams and governments alike. A case study report was developed highlighting the stakeholders and solutions driving resilient industry in Japan, with a focus on the manufacturing sector: [Resilient Industries in Japan: Lessons Learned in Japan on Enhancing Competitive Industries in the Face of Disasters Caused by Natural Hazards](#). The report details good practices and solutions for enhancing the resilience of industries through: (i) policy and legislative; (ii) financial and economic; (iii) infrastructure;

(iv) gender; (v) technology and innovation. For example, Japan has learned that creating an enabling environment for resilient industry is beneficial to the economy overall. National policies in Japan promote the implementation of BCPs, and the importance of BCM and DRM for private sector resilience and competitiveness has been reinforced through the experiences of past mega disasters. Industries that can survive and thrive after disasters maintain jobs and livelihoods thereby promoting local and national economic vitality. In the future, using Japan's experience as a guide, countries and regions that work toward promoting resilient industries will be able to bounce back quickly after a disaster occurs. Twenty-five Japanese experts contributed to this report with a Japanese engineering company as the main technical partner.

These Japanese lessons and solutions for industry resilience are also highlighted within the global flagship report (also focused on the

¹ Matsushita, T., and E. Hideshima. 2014. "Influence over Financial Statement of Listed Manufacturing Companies by the GEJE, the Effect of BCP and Risk Financing." [In Japanese.] *Journal of Japan Society of Civil Engineering* 70 (1): 33–43. https://www.jstage.jst.go.jp/article/jscejsp/70/1/70_33/pdf-char/ja

manufacturing sector)— Resilient Industries: Competitiveness in the Face of Disasters. The global report includes case studies from 13 countries to advance the Resilient Industries Framework suggesting ways in which countries can counter barriers to integrating resilience measures, while mainstreaming disaster and climate change considerations into industrial development plans and investments. For example, the report found that in Japan industrial park-wide BCPs are seen as effective policy tools for collective contingency actions. Turkey has heeded this experience and their Organized Industrial

Japan-World Bank Program for Mainstreaming DRM in Developing Countries, Japanese experts conducted a technical assessment on the “Enhancing Competitive, Green and Resilient Industries in Bangladesh: Integrating resilience within the design and costing of Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN) Economic Zones 2A & 2B.” The studies entailed: (i) an assessment of the site’s underlying flood and seismic risks; (ii) review of existing and proposed key infrastructure such as roads, land development, and coastal protection, and an analysis of their hazard exposures, as well as the level at

In addition, the same grant in Bangladesh is also supporting the development of a National Green and Resilient Economic Zone Guideline, which is to be piloted in select economic zones in Bangladesh in the coming years. The Guideline development is led by Bangladesh Economic Zone Authority (BEZA) in partnership with the World Bank through inputs from a multi-stakeholder technical working group, including Japanese stakeholders. For example, a collaboration between JICA and a private Japanese firm provided a detailed review and inputs to the National Green and Resilient Economic Zone Guidelines drawing upon their global experiences in economic zone development, operation, and management. Further collaboration is envisioned in piloting the Guideline. The Guideline integrates lessons learned from the Japanese good practices and lessons report as well as the global Resilient Industries Framework.

Similarly, in Turkey, under a US\$1 million, the Japan-World Bank Program for Mainstreaming DRM in Developing Countries, a Guideline on Preparation and Implementation of Business Continuity Plans for OIZs in Turkey was developed drawing upon local and global good practices and lessons learned including those from Japan. A Japanese expert was engaged in the Guideline development and implementation, drawing on the lessons learned from the GEJE and Japanese expertise on BCP and BCM. The Guideline was designed to support OIZs in building resilience to quickly respond to disruptions by any emergency or possible disasters while keeping the business operational and protecting people and assets. To ensure the sustainability of BCPs in OIZs, a three-day online training session was conducted with more than a dozen government officials and stakeholders in August 2020; equipping the participants with the necessary knowledge to roll out BCPs across the country.



Workers at an electronics factory in Dongguan, China. Photo: FangXiaNuo

Zones (OIZs) management entities and firms have collaborated with on-site technicians and engineers, using BCPs to address lifeline utility disruptions.

Efforts to support resilient industries continue, expanding to other sectors such as tourism (through development of a report, Resilient Tourism: A Framework for Enhancing Competitiveness in the Face of Disasters) and supporting green and resilient economic zone developments in country, such as in Bangladesh and Turkey. For example, in Bangladesh, under a US\$800,000 grant, the

which disaster risks are considered in their designs; (iii) recommendation and evaluation, including cost effectiveness, of the proposed hard and soft measures that can further enhance the resilience the economic zone and its infrastructures. The technical assessment informed the design of a new US\$500 million World Bank investment, the “Bangladesh Private Investment & Digital Entrepreneurship Project” which is working to promote private investment, job creation, and environmental sustainability in select economic zones, including the BSMSN, and software technology parks.