

Economic Consequences of the Shahid Rajaei Port Explosion: The Value of Proactive Disaster Investment

Fereshte Karimi¹ , Soheila Rajaie²

Date of submission: 22 Jan.2025

Date of acceptance: 20 Mar.2025

Letter to the Editor

Keywords: Shahid Rajaei port; Port explosion; Economic impact; Disaster preparedness; Iran.

How to cite this article: Karimi F, Rajaie S. **Economic Consequences of the Shahid Rajaei Port Explosion: The Value of Proactive Disaster Investment.** *Sci J Rescue Relief* 2025; 17(2):63-64.

Dear Editor,

The explosion at Shahid Rajaei Port in Bandar Abbas has brought renewed attention to the importance of disaster preparedness in Iran's critical infrastructure. As the country's largest commercial port, Shahid Rajaei currently handles more than 80% of Iran's container freight and a substantial portion of its total trade, making it a vital artery for both essential imports and foreign currency earnings. (1)

The immediate costs of firefighting, medical response, and restoring operations were significant, but international experience shows that such investments are necessary to prevent much greater economic losses. (2&3) For example, the delayed response to the Brumadinho dam collapse in Brazil resulted in total damages exceeding \$13 billion, and the 2020 Beirut port explosion caused direct losses of over \$3 billion, with far-reaching consequences for Lebanon's economy. (4)

In the case of Shahid Rajaei Port, rapid containment and restoration efforts helped avert a broader crisis. Disruptions at this port could have paralyzed supply chains for essential goods like wheat, rice, and pharmaceuticals, leading to shortages and price increases. Given the port's central role, analysts suggest that a prolonged shutdown might have driven up transportation costs and commodity prices, and even affected oil exports, with potential impacts on national

revenues and currency stability. These risks are not merely theoretical; they are supported by the experiences of other countries facing similar disasters. (2-4)

Global research confirms that investment in disaster preparedness and rapid response is economically prudent. Studies using advanced economic models indicate that resilient logistics and emergency planning can dramatically reduce the economic fallout from major port disruptions. (5)

While the costs of extinguishing the Shahid Rajaei explosion and conducting rescue operations were considerable, these efforts were essential to averting a much larger economic catastrophe. Strengthening Iran's disaster management frameworks, informed by international scientific research, is imperative to protect the nation's economic lifelines and ensure resilience against future shocks.

References

1. Mohajeri P, Banouei AA, Rahmanpour S. [Estimation of the economic consequences of a port shutdown on national output; case study: Shahid Rajaei port (Persian)]. *Journal of Applied Economics Studies in Iran*. 2023;12(45):79-105.
2. Nations U. Beirut rapid damage and needs assessment. International Bank for Reconstruction and Development. The World Bank Group; [cited August 31, 2020]. Available from: <https://documents1.worldbank.org/curated/en/6500>

1. Research Center for Emergency and Disaster Resilience, Iranian Red Crescent Society, Tehran, Iran

Correspondence to: Fereshte Karimi, Email: fereshte_k69@yahoo.com

91598854062180/Beirut-Rapid-Damage-and-Needs-Assessment.pdf

3. Wendler-Bosco V, Nicholson C. Port disruption impact on the maritime supply chain: a literature review. *Sustainable and Resilient Infrastructure*. 2020;5(6):378-94.
<https://doi.org/10.1080/23789689.2019.1600961>
4. Silva C., Wolf, R., Oliveira T., Valerio, V. Regional economic impacts of the Brumadinho tailing dam rupture disaster in Minas Gerais (Brazil) based on labor productivity changes. Conference: 60^o Congresso da SOBER2022. [September 14,2022] <http://doi.org/10.29327/sober2022.485130>.
5. Rose A, Wei D. Estimating the economic consequences of a port shutdown: the special role of resilience. *Journal of Economic Systems Research*. 2013;25(2):212-32.
<https://doi.org/10.1080/09535314.2012.731379>