

Editorial: Post Cyclone Ditwah reconstruction for Sri Lanka: rising from the storm much stronger

The context

In late November 2025, Cyclone Ditwah struck Sri Lanka, causing the worst flooding in over two decades. As of January 2026, the country is transitioning from emergency relief to a massive reconstruction phase. The World Bank estimates direct physical damage at \$4.1bn (approximately 4% of GDP), though total reconstruction needs are expected to exceed \$6bn. The reconstruction efforts are divided into several critical sectors:

Infrastructure restoration (\$1.735bn): Infrastructure represents the largest share of damage (42%). Priority is being given to:

- *Roadway connectivity:* In total, 206 major roads and more than 22 bridges were damaged and made impassable in the immediate aftermath. Damage to the rural roads is still estimated. Restoring damage to the highway network alone will cost approximately Rs 190bn. Sri Lanka Armed Forces, together with international support teams, were able to restore connectivity in major roadways, but still, many rural roads are in urgent need of repair.
- *Rail:* Out of Sri Lanka's total 1,593 km of railway track, only 478 kms remained operational during the early phase of the disaster. Rail lines are being restored in a phased manner, as the damage was substantial. The cost of restoration to pre-disaster status is estimated at US\$400m ([Ceylon Today, 2025](#)).
- *Power:* At the onset of the disaster, electricity outages affected 3.9 million people across the country. Ceylon Electricity Board, the main national service provider, incurred a loss of Rs 20bn due to flood and landslide damage ([Daily Mirror, 2025](#)). Recovering losses without adding further economic burden to the consumers will be challenging.
- *Water supply:* The National Water Supply and Drainage Board, the national water supply provider, incurred a loss of around Rs 5.6bn. In total, 85 major urban water schemes and 537 rural schemes were damaged, including 95% of the water supply in the Badulla district, one of the hardest hits. The cost of reconstruction for small- and medium-scale community water networks is expected to be substantial ([Relief Web, 2026](#)). Cleaning and full restoration of the household drinking water sources (dug wells, community wells, etc.) will incur a considerable cost for local governments.

Housing and urban planning (\$985m): Over 6,000 houses were destroyed, and nearly 114,000 houses were partially damaged throughout the country. Residential building damage, including contents, accounted for US\$985m, 24% of the total estimated damage. Hence, housing is a top priority:

- *Resilient rebuilding:* The government is shifting focus away from simple restoration towards "building back better" with flood-resistant designs and wind-resilient structures.
- *Relocation:* Around 15,000 families living in landslide-prone zones are identified for relocation in safer government-developed housing schemes over the next two years. There is a plan to move approximately 15,000 families living in high-risk landslide



zones to safer, government-developed housing schemes over the next two years. Families living in areas deemed unsafe are to be provided with either land or Rs 5m to purchase new land and another Rs 5m to construct a new house. For damaged houses government will provide Rs 2.5m for reconstruction, depending on the severity of damage. National Building Research Organisation (NBRO) estimates approximately 30% of the country's land area to be landslide-prone, making relocation a real challenge ([The morning, 2026](#)).

Education and health (\$562m): Over 1,300 schools and 6 universities were affected. Around 500 schools were utilised as temporary shelters at the initial response. Reconstruction focuses on repairing classrooms and replacing lost educational materials before the new academic term starts in early January. Schools utilised as temporary housing require refurbishment to address wear and tear.

More than 400 health-care institutions reported some extent of damage following the disaster, including several major referral centres. The estimated cost for the sector to regain full operational capacity is Rs 21,026.73m. Eight hospitals are planned for relocation, costing around Rs 7,904.28m ([Cyclone Ditwah, 2025](#)). In hospitals, mitigating flood risks requires significant investment, encompassing the repair of damaged machinery, the vertical relocation of life-saving equipment and the structural reinforcement of critical care departments, such as ICUs and surgical theatres. Reconstruction of grassroots-level public health units (Medical Officer of Health [MOH]), field weighing posts and rural clinics will incur a substantial cost.

Improving infrastructure to reduce vulnerabilities to future hazards

Cyclone Ditwah highlighted that most of the existing infrastructure stock was designed for a “climate that no longer exists”, necessitating a fundamental shift from simple repair to climate-resilient reconstruction. Based on the impacts of Cyclone Ditwah, here are the strategic areas for improving infrastructure to reduce future vulnerabilities. Resilience is not built in the aftermath of a disaster, but in the “quiet months” between them by integrating climate and disaster risk, and their interdependences into every national budget and urban plan.

Integration of disaster risk reduction to post-cyclone reconstruction

While the acute phase of the current disaster has subsided, persistent uncertainties and escalating risks continue to challenge Sri Lanka's long-term resilience. The onset of the North-Eastern Monsoon, combined with recurring low-pressure systems, has heightened the risk of a protracted crisis. This situation underscores the fact that risk is systemic and cascading, further destabilising the country's fragile socio-economic landscape.

To navigate this multi-dimensional vulnerability, Sri Lanka must implement strategically calculated, measurable actions. The integration of disaster risk reduction (DRR) must move beyond theoretical frameworks into practical application. This includes developing robust multi-hazard early warning systems that account for the compounding nature of simultaneous risks. All future interventions must address the complexities of modern disasters by tackling exposure, vulnerability and hazard characteristics in a holistic manner.

Several key steps are required to mainstream DRR strategies in to post cyclone reconstruction process. This would not only improve the quality of the infrastructure but also make it as disaster resilient as possible. DRR should be an integral part of legal and normative frameworks, risk-informed national and sectoral policy and strategy design and implementation, financing and programme budgeting, codes for design and construction of

the built environment both urban and rural, land use planning, both at national and local government levels, preparedness and emergency response planning accountability, monitoring and evaluation mechanisms and donor management ([Palliyaguru and Amaratunga, 2008](#)).

Readiness for recovery and need for anticipatory action

As disaster risk increases, it must be ensured that the country is built back better with improved recovery outcomes, considering the vulnerabilities of the past, and systems created for the future. This includes ensuring risk assessments to understand the locational vulnerability of relocation sites, arranging finance through grants, international assistance, insurance or other instruments and building the capacity of critical stakeholders on safe (re)construction sites. In this context, it is essential that pre-disaster recovery preparedness is undertaken to enhance resilience rather than rebuilding existing risks ([SFDRR mid-term review, 2023](#)).

Towards the goal of ensuring that the county (and communities) is ready for targeted and timely post-disaster recovery for long-term resilience, and to change this trajectory, governments and partners worldwide endorsed the Priority Actions to Enhance Readiness for Resilient Recovery ([UNDRR, 2025](#)). These ten actions call for stronger governance, inclusive financing, empowered local leadership, resilient housing and infrastructure, livelihood recovery systems and adaptive monitoring.

Consideration of infrastructure interdependencies and vulnerabilities for compound hazards

Critical infrastructure (CI) is the lifeline of a society. They are designed to withstand the impacts of a crisis, so that the essential operations can run without interruption; however, their resilience against disasters remains inadequately understood with the increasing interdependencies among different CIs. A functioning water treatment plant is vital for a hospital, as is the uninterrupted power to a water pumping station. A better understanding of these interdependencies and unique operational capabilities is essential for post-disaster recovery and reconstruction ([Rathnayaka et al., 2025](#)). Interdependencies among CI could run into an increasing risk of cascading failures triggered by primary malfunctions, witnessed during the current disaster. Such failures are catastrophic in the immediate aftermath of a disaster, making it impossible to restore the system. Restoration, too, has to be linked rather than restoring one entity after another, understanding their interoperability. It is no secret that much of the CI is a legacy of the country's colonial past or modifications afterwards. Hence, remodelling them to be disaster resilient is both economically and logistically challenging. Such a situation necessitates continued political will, more investment and technical expertise to modernise the CI to withstand future disasters; and the reconstruction phase offers the best window to implement this change.

Displacement and relocation

The severity of human suffering due to recent landslides is accompanied by widespread destruction of physical and social productive infrastructure. As a result, the economy of many administrative districts and communities is at risk of immediate-, medium- and long-term impacts. Further, landslides are likely to increase considerably in the near future due to the impact of climate change and climate variability, resulting in extreme weather conditions. The large-scale destruction of life and property following disasters calls for more sustainable and efficient relocation policies. It is therefore vital that current policies and laws are reviewed that are relevant and applicable for resettlement and land acquisition. Current

shortcomings and gaps also need to be identified pertaining to the resettlement of vulnerable populations to safe areas, and recommendations for strengthening policy content and laws conducive to efficient planning and implementation of a national landslide risk mitigation action plan.

The policy brief that was compiled using the findings of a study which was undertaken to understand the status of a community that had been displaced and relocated to new locations following landslides in the Kegalle district, Sri Lanka, provide following recommendations that are equally applicable to the current setting ([Fernando et al., 2020](#)): Conducting a need, social impact and capacity assessment before the relocation process; Introducing additional funding opportunities for displaced communities based on the results of need, social impact and capacity assessment; strategies for restoration of livelihood/income generation/enhance skills of family members; providing support to improve the livelihood strategies of relocated communities; expediting the process of issuing deeds for houses and land ownership. Further recommendations for the future include: provision of legal documents to prove land ownership; mechanism to make beneficiaries aware about the resettlement policy; and management of house construction expenditure and reducing the time of receiving the instalments ([Fernando et al., 2021](#)).

Socio-Cultural and economic dynamics

Relocation strategy must account for the deep cultural and economic ties Sri Lankans hold towards their homes:

- *The “New” displaced:* Many areas affected in this disaster were traditionally considered safe. This has created a new cohort of displaced people who lack the “disaster-habitation” of other regions. Their psychological trauma and resistance to leaving ancestral homes are significantly higher. These stresses will exacerbate among the most vulnerable cohorts, particularly children ([De Silva, 2018](#)).
- *Livelihood dependency:* In the Central Highlands, plantation communities face a unique risk; their residential status is often tied to their employment. Relocation threatens their very survival and trade.
- *Educational continuity:* Education is a top priority in the Sri Lankan family hierarchy. Families are often unwilling to move if relocation disrupts their children’s current schooling and social stability.

Safe land scarcity and technical bottlenecks

The NBRO has designated nearly 30% of Sri Lanka as landslide-prone, making the search for safe relocation sites a significant dilemma for both officials and displaced communities. This crisis is intensified by the time-intensive nature of technical land assessments. With island-wide destruction stretching the NBRO’s human resources to their limit, completing these evaluations remains a mammoth challenge.

The transition dilemma

A critical bottleneck exists in the transition from emergency shelter to temporary housing. Many displaced families are currently sheltered in schools, which must soon be vacated to resume educational activities. Because of a lack of alternative campsites for temporary camps, many families remain in a state of “limbo”, with no clear path to safe, mid-term accommodation.

Concerns over reconstruction quality

While the government has announced a substantial compensation package for rebuilding and repairs, significant gaps remain:

- *Resilience gap*: It is unclear if financial aid will be accompanied by the technical assistance required to ensure new buildings are disaster and climate resilient.
- *The “quality mismatch”*: Historically, relocation projects led by the government or NGOs have faced backlash regarding inadequate space and poor construction quality. Without a participatory approach – where beneficiaries are involved in the design and planning – new housing risks being rejected by the very people it is meant to serve ([Groundviews Journalism for Citizens, 2025](#)).

Ownership

While the government’s decision to waive land deed and ownership requirements for disaster compensation is a vital step for landless plantation communities, significant barriers remain. The Right to Information Commission recently emphasised that all compensation guidelines, circulars and forms must be published in Sinhala, Tamil and English to eliminate the information bias, affecting communities in the North, East and plantation sectors. Furthermore, many affected individuals struggle with complex official jargon; without accessible language and dedicated administrative guidance, these communities remain at risk of being excluded from the relief they are legally entitled to receive.

Urban planning, building regulations and the approval process

Evidence-based, risk-informed urban planning has been recognised as an important strategy for reducing disaster risk. Existing strategies fail to address multi-hazard threats and systemic risk, as well as inadequate community involvement, and limited access to timely disaster risk information ([Perera et al., 2025](#)). Although strict regulations are there in case of buildings and houses, a faulty system, administrative bottlenecks and malpractices to some extents have created many loopholes and avenues to bypass the system. Therefore, a paradigm shift in the necessary processes is essential to fix the system. Strategies for urban planning in hazard-prone areas can be grouped into six broad themes: “community participation, spatial planning, soft and hard engineering, evacuation planning and resilience thinking” ([Kamalrathne et al., 2022](#); [Dissanayake et al., 2022](#)).

Post-disaster project management

The uncertainties and complexities inherent in post-disaster situations pose unique challenges for project design, implementation and monitoring. During reconstruction, particularly significant roadblocks are created by uncertainties regarding land suitability, recurring disaster risks and changing climatic conditions ([Ismail et al., 2014a](#)). These challenges are further compounded by delayed or inadequate assessments, administrative bureaucracy, poor resource allocation and a lack of skilled human resources. The application of ineffective PM strategies during post-disaster reconstruction can further exaggerate the problems associated with reconstruction. For instance, the application of conventional stakeholder management may not be appropriate for post-disaster reconstruction in developing countries because post-disaster construction certainly requires inputs of numerous irregular stakeholders, such as community-based organisations, disaster management bodies, donors, thus managing such irregular stakeholders will require much more thoughtful approaches and processes ([Ismail et al., 2014a](#)).

Given the extent of the damage and the risk areas involved in the current disaster, these challenges are likely to be exacerbated during ongoing reconstruction efforts. Delays in assessing and quantifying the damage – due to insufficient technical staff and associated costs – can severely hamper projects. Furthermore, mandatory requirements for completing such assessments before allocating government land or resources will prolong the time it takes for reconstruction to commence. Moreover, there are several reasons pointed out as to why the traditional PM carry limitations in the context of post-disaster reconstruction: it focuses on a single project life cycle or inflexible timeframe for project completion; it identifies the complexities and unique challenges of large disaster settings; it measures project success in terms of project outcome rather than ongoing processes; it does not count the requirements of the target communities. These issues need careful intervention in the post-cyclone reconstruction activities.

Prioritising reconstruction projects

This presents another significant challenge. Previous experiences in Sri Lanka suggest that post-disaster reconstruction is often driven primarily by the immediate need for housing for the displaced. However, since current disasters often affect multiple sectors, including roadways, health and education, a structured approach to prioritising reconstruction and managing these diverse projects is warranted.

Funding management

These arrangements are critical for a successful post-disaster reconstruction. The total direct and indirect assistance received by the government for disaster response, relief and reconstruction is around Rs 85bn. Various other funding sources, such as the UN Humanitarian Appeal targets around US\$35m, while the International Monetary Fund has released US\$206m to address and ease the fiscal pressure due to Cyclone Ditwah (IMF, 2025). In addition, the “Rebuilding Sri Lanka” fund has amassed over Rs 4.2bn, with generous support from the general public, diaspora and business community (Predietnaol Secretariat, 2025). How the government plans to channel these funds into priority reconstruction projects, including housing, health, road links and education, must be studied further. One mechanism could be the newly established Presidential Task Force. An extraordinary gazette was issued recently, establishing a 25-member Presidential Task Force under the “Rebuilding Sri Lanka” initiative to coordinate post-disaster rehabilitation, recovery and reconstruction (Relief web, 2026). The role of the development sector, NGOs and civil society organisations have a substantial stake in both project and funding management for reconstruction. A coordinated and planned approach, together with the government agencies, will avoid duplication of efforts and waste of resources during the reconstruction process. Accountability towards the affected populations and community needs must be central to such reconstruction efforts (Ismail *et al.*, 2014b).

We understand risk, but not necessarily the actions needed for disaster resilience and how to make these disasters resilient and sustainable. This editorial has explored what reconstruction approaches and practices are relevant for addressing disaster risks, such as multi-stakeholder engagement and participatory planning, and what are the tools can guide reconstruction planners and related stakeholders for this transformation, where DRR act as a catalyst for the development of novel/transformative reconstruction policies and practices. It seeks to identify and understand how the reconstruction process can be used to mitigate future disaster impacts.

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Environment

179

References

- Ceylon Today (2025), "Broken arteries of a nation", [Accessed 6 January 2026], available at: <https://ceylontoday.lk/2025/12/06/broken-arteries-of-a-nation/>
- Cyclone Ditwah (2025), "Loss and damage and post disaster needs assessment of institutions under the health sector of the ministry of health and mass media".
- Daily Mirror (2025), "Cyclone Ditwah causes Rs. 5.6 bn loss to the water board", [Accessed 6 January 2026], available at: www.dailymirror.lk/print/news/Cyclone-Ditwah-causes-Rs-5-6-bn-loss-to-Water-Board/239-328063#:~:text=t%20was%20also%20revealed%20that,in%20the%20Parliamentary%20complex%20recently
- De Silva, M. (2018), "Involuntary disaster relocation and its impact on children: a case study in Galle, Sri Lanka", *Procedia Engineering*, Vol. 212, pp. 190-197, ISSN 1877-7058, doi: [10.1016/j.proeng.2018.01.025](https://doi.org/10.1016/j.proeng.2018.01.025)
- Dissanayake, R., De Zoysa, C., Abeysinghe, S., Haigh, R., Amaratunga, D. and Perera, T. (2022), *Briefing Paper: Integrating Pandemic, Tsunami, and Other Multi-Hazard Preparedness into Urban Planning in Sri Lanka*: Ministry of Rural Roads and other Infrastructure, Sri Lanka
- Fernando, N., Amaratunga, D., Haigh, R. and Sugathapala, K. (2020), "Policy brief on post landslide relocation in Sri Lanka, status quo of natural hazard induced displacement and relocation in Kegalle", Sri Lanka".
- Fernando, N., Amaratunga, D., Wise, B., Haigh, R., Prasanna, J., Vijekumara A., Ekanayake K., Senanayake C.A. and Jayasinghe N. (2021), *Life Two Years after Relocation: Status Quo of Natural Hazard Induced Displacement and Relocation in Kegalle*, Project Report. NBRO, Sri Lanka.
- Groundviews Journalism for Citizens (2025), "Tales of post disaster recovery in Sri Lanka", available at: <https://groundviews.org/2025/12/12/tales-of-post-disaster-recovery-in-sri-lanka/>
- IMF (2025), "Sri Lanka: request for purchase under the rapid financing instrument-press release; staff report; and statement by the executive director for Sri Lanka", *IMF Country Report*, Nos 25/339, International Monetary Fund Publication Services.
- Ismail, D., Majid, T.A., Roosli, R. and Ab Samah, N. (2014b), "A review on post-disaster reconstruction project: issues and challenges faced by international non-governmental organisations (INGOs)", *Proceedings of the International Post-Graduate Seminar (IPGS 2014)*, Universiti Teknologi MARA, Shah Alam.
- Ismail, Y.D., Majid, T.A., Roosli, R. and Ab Samah, N. (2014a), "Project management success for post-disaster reconstruction projects: international NGOs perspectives", *Procedia Economics and Finance*, Vol. 18, pp. 120-127, doi: [10.1016/S2212-5671\(14\)00921-6](https://doi.org/10.1016/S2212-5671(14)00921-6), ISSN 2212-5671.
- Kamalathne, T., Perera, T., Amaratunga, D. and Haigh, R. (2022), "Challenges of urban planning in the context of multi-hazard: a systematic literature review", *Conference Proceedings of The International Conference on "Geography and Global Sustainability" (ICGGs 2021)*, University of Colombo, ISBN 978-624-5873-37-1 9.
- Palliyaguru, R. and Amaratunga, D. (2008), "Managing disaster risks through quality infrastructure and vice versa: post-disaster infrastructure reconstruction practices", *Journal of Structural Survey*, Vol. 26 No. 5, pp. 426-443.

- Perera, U., Haigh, R., Amaratunga, D. and Rahayu, H. (2025), "Urban planning in tsunami-prone areas: a comparative study on integration of urban planning strategies in tsunami preparedness planning", in Shaw, R., Izumi, T., Djalante, R. and Imamura, F. (Ed.) *Two Decades from the Indian Ocean Tsunami: Key Challenges and Advancements*, Springer.
- Predietnaol Secretariat (2025), "Rs. 1,893 million in local and foreign support secured for the 'rebuilding Sri Lanka' programme", available at: <https://www.presidentsoffice.gov.lk/rs-1893-million-in-local-and-foreign-support-secured-for-the-rebuilding-sri-lanka-programme/>
- Rathnayaka, B., Robert, D., Adikariwattage, V. and Amaratunga, D. (2025), "Novel methodology for resilience assessment of critical infrastructure considering the interdependencies: a case study in water, transportation and electricity sector", *International Journal of Disaster Risk Reduction*, Vol. 119, pp. 1–2, 105271, doi: [10.1016/j.ijdr.2025.105271](https://doi.org/10.1016/j.ijdr.2025.105271).
- Relief Web (2026), "UNICEF Sri Lanka humanitarian situation report No. 6 (cyclone Ditwah): 01 January 2026", [Accessed 6 January 2026], available at: <https://reliefweb.int/report/sri-lanka/unicef-sri-lanka-humanitarian-situation-report-no-6-cyclone-ditwah-01-january-2026#:~:text=ver%201.2%20million%20people%2C%20including,25%20districts%20with%20emergency%20assistance>
- Relief web (2026), "WFP Sri-Lanka country brief", available at: <https://reliefweb.int/report/sri-lanka/wfp-sri-lanka-country-brief-january-2026#:~:text=n%20Extraordinary%20Gazette%20was%20issued,severe%20impact%20of%20Cyclone%20Ditwah>
- SFDRR mid-term review (2023), "UNDRR", available at: <https://sendaimonitor.undrr.org>
- The morning (2026), "Post-Ditwah rebuilding plans: housing resettlement completion in max 2 years", [Accessed 1 June 2026], available at: <https://www.themorning.lk/articles/8FkQdsXb1PSNFD9C5ffj>
- UNDRR (2025), "Priority actions to enhance readiness for disaster recovery", UNDRR, available at: <https://www.undrr.org/media/108972/download?startDownload=20260102>

Further reading

- Palliyaguru, R., Amaratunga, D., Samarakkodi, A. and Nissanka, S. (2023), "Distinct project management for post-disaster reconstruction projects in developing countries", in Ofori, G. (Ed.), *Building a Body of Knowledge in Project Management in Developing Countries*, World Scientific, Vol. 3, pp. 514-551, doi: [10.1142/9789811224720_0016](https://doi.org/10.1142/9789811224720_0016).