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Building Back Better in small and remote Nordic communities: A practitioner-oriented assessment checklist

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Building Back Better in Small and Remote Nordic-Arctic Communities: A Practitioner-Oriented Assessment Checklist

Abstract

Build Back Better (BBB) is a central principle of the Sendai Framework for Disaster Risk Reduction 2015–2030, which identifies recovery, rehabilitation, and reconstruction as an opportunity to reduce future disaster risk rather than to restore pre-disaster vulnerability. Existing BBB and recovery-readiness tools provide comprehensive guidance but are generally designed for national governments or cities and are not specifically tailored to the institutional, demographic, and infrastructural realities of small and remote settlements. This working paper presents a practitioner-oriented Build Back Better Assessment Checklist developed within the NordForsk-funded ARCHAIC Project. It translates Sendai Priority 4 into a compact settlement-scale assessment while retaining strong links to risk governance, recovery, and long-term resilience. Its particular contribution is the integration of issues that are especially consequential in Nordic-Arctic communities: limited local administrative capacity, dependence on national support, isolation and single points of infrastructure failure, place-dependent livelihoods, demographic and service viability, temporary and permanent relocation, community cohesion, volunteer capacity, and the interaction between insurance, compensation, and safer recovery choices. The checklist is intended as a structured discussion, evidence, and monitoring tool, rather than a certification system.

1. Background and purpose

The Sendai Framework for Disaster Risk Reduction 2015–2030 places Build Back Better at the centre of Priority 4: enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation, and reconstruction (UNDRR, 2015). BBB is defined as the use of recovery, rehabilitation, and reconstruction to increase resilience by integrating disaster risk reduction into physical infrastructure, societal systems, livelihoods, economies, and the environment (UNDRR, 2017). Therefore, the principle extends beyond the replacement of damaged assets. It asks whether recovery reduces exposure and vulnerability, strengthens resilience, and avoids recreating the conditions that produced disaster risk in the first place.

The practical importance of this principle has increased recently. The UNDRR Recovery Readiness Framework and Assessment Tool emphasises that governments should establish governance, financing, capacity, and data arrangements before disasters occur (UNDRR & IRP, 2025). Complementary Priority Actions for resilient recovery emphasise local leadership, livelihood and economic recovery, resilient housing and infrastructure, inclusive financing, and adaptive monitoring and learning (UNDRR & IRP, 2025). Consequently, recovery readiness is becoming an increasingly

explicit component of disaster risk reduction, rather than an activity that begins only after an event.

This working paper was developed within the project *Sustainable and Resilient Communities in Remote Settlements in the Arctic in the Age of Climate Change* (ARCHAIC; see NTNU (n.d.)). The NordForsk-funded project examines climate adaptation and natural hazard risk in remote Arctic settlements, including early warning, emergency preparedness and crisis management, relocation from high-risk areas and the transfer of Arctic adaptation experience. Work Package 3 explicitly asks how risk-based and participatory relocation should be approached, what can be learned from previous relocation processes, and how Build Back Better should be considered in relation to relocation and sustainable community development.

This checklist addresses this question from a practical perspective. Rather than treating the BBB and relocation as opposing concepts, it considers relocation, partial relocation, and changes in land use as possible components of risk-reducing recovery. Its purpose is to help practitioners assess to what extent recovery arrangements support a safer, more resilient, and viable community.

2. Why adapt BBB to small and remote Nordic-Arctic settlements?

Small and remote Nordic-Arctic communities operate under conditions that are only partially captured by national and urban recovery frameworks. Municipal administrations may be small, whereas technical expertise, finance, and statutory responsibilities are distributed across local and national institutions. Therefore, recovery can depend heavily on the quality of coordination between the levels of government.

Remoteness also changes the meaning of infrastructure resilience. An urban area may have several roads, hospitals, telecommunications providers, or supply routes. A small settlement may depend on one harbour, one road, one runway, one fibre connection, one fuel depot, or one external supply route. Therefore, the failure of a single component can simultaneously interrupt several essential services. Informal networks, voluntary organisations, and locally based service providers may also constitute a substantial part of the available capacity.

These challenges intersect with long-term regional development. Nordic rural and sparsely populated areas face uneven demographic change, ageing populations, labour shortages, and difficulties maintaining accessible essential services. Research on Nordic rural service provision consequently stresses place-based

solutions, collaboration between levels of government, and rural-specific risk analysis that considers distance and local capacity (Slätmo et al., 2022; Slätmo et al., 2023).

For BBB, this means that replacing an asset is not necessarily equivalent to restoring viable function. Reconstructing a school, healthcare facility, harbour, or utility may have limited long-term value if staffing, population, supply chains, or other services required for its operation cannot be sustained. The checklist connects physical reconstruction with demographic trends, workforce availability, essential-service provision, and wider settlement viability.

Relocation represents another particularly important dimension. In a small settlement, relocation of housing, public services, or place-dependent livelihoods can affect community cohesion, identity, access to employment, and the viability of the settlement as a whole. At the same time, reconstruction finance can unintentionally reproduce exposure. A Nordic comparison of climate-adaptation policies notes that Norwegian natural-damage insurance historically enabled homeowners to rebuild after natural hazards but did not necessarily enable them to *build back better* where relocation was required to avoid future hazard exposure (Gram-Hanssen et al., 2023).

These issues are not unique to the Nordic region. Climate change is also reshaping local hazard profiles: warmer winters, shorter snow seasons, and episodes of extreme snowfall or heavy rainfall can increase risks of avalanches, landslides, flooding, and disruption to roads and other infrastructure (AMAP, 2021). However, their combination and intensity make them particularly important in small, remote, and hazard-exposed Nordic-Arctic settlements.

3. Relation to existing tools and contribution

This checklist builds on, rather than replaces, established international BBB frameworks.

The UNDRR Recovery Readiness Framework and Assessment Tool provide the most comprehensive and recent international reference. It assesses recovery readiness through four domains—governance, finance, capacity, and data and knowledge—comprising 12 areas of measurement and 65 key performance indicators (KPIs). Its principal purpose is to help governments identify institutional gaps and strengthen recovery systems before disasters occur (UNDRR & IRP, 2025).

At the local level, Uscore2 Module 10: Expedite Recovery and Build Back Better provides an evidence-based peer-review methodology covering recovery planning,

societal and economic recovery, financing, stakeholder involvement, risk reduction, and learning. However, Uscore2 (n.d.) was explicitly developed as a city-to-city peer-review process, and its wider institutional framework is embedded in the Making Cities Resilient initiative.

Recent Icelandic experience provides another important reference. The World Bank's Advisory Report on Resilient Recovery Framework for Grindavík organises recovery recommendations around policy and governance, safety and preparedness, people and social infrastructure, and critical infrastructure and the economy. It explicitly treats recovery as an opportunity to Build Back Better and highlights decision-making under evolving risk conditions (World Bank, 2026). However, it is an advisory framework for a particular recovery process rather than a transferable assessment tool for small and remote settlements.

The contribution of the present checklist is therefore not that its individual BBB principles are new. Governance, participation, resilient reconstruction, financing, inclusion, and learning are well-established components of the Sendai implementation. Its contribution lies in integrating these principles at the settlement scale with issues that become especially consequential in small and remote Nordic-Arctic communities.

In particular, the checklist makes explicit:

- local administrative and financial capacity and dependence on national support;
- national–local allocation of responsibilities;
- dependence on volunteers, informal networks and locally based services;
- residual-risk thresholds and decisions under changing hazard knowledge;
- isolation, single points of infrastructure failure and cascading service dependencies;
- temporary housing, partial relocation and permanent relocation;
- community cohesion, sense of place and local and Indigenous knowledge;
- place-dependent livelihoods;
- demographic, workforce and essential-service viability; and
- the interaction between insurance, compensation, public property acquisition and incentives for safer reconstruction.

Consequently, the framework is more compact and settlement-oriented than the UNDRR Recovery Readiness Framework, while extending beyond the predominantly urban orientation of existing local BBB tools. Its purpose is to

help practitioners address a straightforward but demanding question:

To what extent does the recovery pathway reduce future risk while supporting a viable, equitable, and resilient community?

4. Using the assessment checklist

The checklist comprises 13 thematic sections covering governance; stakeholders; risk and scenarios; inclusion and legitimacy; reconstruction standards; critical infrastructure and basic services; housing and relocation; livelihoods and settlement viability; health and education; environment and cultural heritage; financing and insurance; preparedness for recovery; and monitoring and learning.

Each criterion is assessed on a 0–3 scale. A score of 0 indicates that the issue is not addressed; 1 indicates that it is recognised but remains informal, insufficiently resourced, or unclear; 2 indicates that measures are partly established or implemented; and 3 indicates that arrangements are established and implemented with clear responsibility and supporting evidence. *Not applicable* may be used where irrelevance can be justified and documented.

The evidence column is central to the assessment. Scores should, wherever possible, be supported by legislation, plans, budgets, hazard assessments, meeting records, monitoring data, or

documented stakeholder processes. The comments/actions column turns the assessment into a practical management exercise by identifying unresolved issues, responsibilities, and required follow-up.

Each thematic section is summarised on the same 0–3 scale. The overall BBB score is the average of the 13 section scores, giving each thematic section equal weight regardless of the number of criteria it contains. The aggregate score is diagnostic rather than a pass/fail threshold. Critical deficiencies concerning life safety, essential services, unacceptable residual risk, or the recreation of known hazard exposure cannot be compensated for by strong performance elsewhere.

The checklist may be applied at different stages. Before an event, it can support recovery-readiness assessment. During recovery, it can structure discussion, identify gaps, and clarify responsibilities. After or during later stages of reconstruction, it can be repeated to assess progress and whether BBB commitments have translated into practice.

Where possible, assessment should be undertaken jointly by local and national authorities together with relevant infrastructure operators, civil society, community representatives and other actors with direct knowledge of the settlement. Differences in scoring should

be discussed rather than automatically averaged, since disagreement may itself reveal gaps in information, coordination or expectations.

5. Scope and limitations

The checklist is a practitioner-oriented assessment and discussion tool, not a statutory standard, engineering assessment, or certification of safety. It does not determine whether a settlement should be rebuilt or relocated, nor does a high score demonstrate that residual risk is acceptable. Such decisions require scientific hazard assessment, legal and financial analysis, and meaningful community and political deliberation.

The checklist should also be regarded as a working instrument. It has been developed from Sendai Priority 4, international BBB and recovery-readiness frameworks, Nordic rural-development considerations, and recent Nordic-Arctic recovery experience. Further application across different settlements is required to test its usability, inter-assessor consistency, and transferability.

This iterative approach is consistent with the wider purpose of ARCHAIC: connecting research on natural-hazard risk, community resilience, and relocation with practical approaches that can support safer and more sustainable development in remote Arctic settlements.

References

- AMAP, 2021. AMAP Arctic Climate Change Update 2021: *Key Trends and Impacts*. Arctic Monitoring and Assessment Programme (AMAP), Tromsø, Norway. viii+148pp
- Gram-Hanssen, I., Aall, C., Drews, M., Juhola, S., Jurgilevich, A., Klein, R.J.T., Mikaelsson, M.A. & Mik-Meyer, V.L. (2023). *Comparison and analysis of national climate change adaptation policies in the Nordic region*. TemaNord 2023:525. Nordic Council of Ministers.
<https://doi.org/10.6027/temanord2023-525>.
- NTNU (n.d.). *ARCHAIC – Sustainable and Resilient Communities in Remote Settlements in the Arctic in the Age of Climate Change*. Norwegian University of Science and Technology.
<https://www.ntnu.edu/iot/archaic> Assessed: 20.08.2026
- Slätmo, E., Bogason, Á., Vasilevskaya, A. & Salonen, H. (2022). *Essential rural services in the Nordic Region: Challenges and opportunities*. Nordregio Report 2022:1.
<http://doi.org/10.6027/R2022:1.1403-2503>
- Slätmo, E., Bogason, Á., Cedergren, E., Huynh, D. & Salonen, H. (2023). *Service provision and access to services in Nordic rural areas*. Nordregio Report 2023:2.
<https://doi.org/10.6027/R2023:2.1403-2503>.
- UNDRR (2015). *Sendai Framework for Disaster Risk Reduction 2015–2030*. Geneva: United Nations Office for Disaster Risk Reduction.
- UNDRR (2017). *Build Back Better*. Sendai Framework Terminology on Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/drr-glossary/terminology> Assessed: 20.08.2026
- United Nations Office for Disaster Risk Reduction (2025). *Recovery Readiness Framework and Assessment Tool*. Geneva.
- Uscore2 Project (n.d.). *Module 10: Expedite Recovery and Build Back Better*. City-to-City Peer Review Tool for Disaster Risk Reduction. <https://mcr2030.undrr.org/sites/default/files/2021-09/Uscore2%20Module%2010%20Expedite%20Recovery%20and%20Build%20Back%20Better.pdf?startDownload=true> Assessed: 20.08.2026
- World Bank (2026). *Advisory Report on Resilient Recovery Framework: Grindavík (English)*. Washington, DC: World Bank Group.
<http://documents.worldbank.org/curated/en/099041726025022797> Assessed: 20.08.2026

Appendix: Build Back Better Assessment Checklist

Assessment tool aligned with Sendai Framework Priority 4 and adapted for small and remote Nordic-Arctic communities.

Scoring:

0 = Not addressed: No provision, action, or supporting evidence identified.

1 = Recognised: The issue is acknowledged or addressed informally/ad hoc, but responsibilities, resources, or implementation are limited or unclear.

2 = Partially established: Measures are planned or partly implemented; responsibilities and resources are at least partly defined, but gaps remain.

3 = Established: Measures are formally in place and implemented, with clear responsibility, appropriate resources, and supporting evidence or monitoring where relevant.

N/A = Not applicable: The criterion is demonstrably not relevant to the assessed context.

The reason should be recorded and the criterion excluded from scoring.

For each section, calculate the average of all applicable criterion scores and report the result on the same 0–3 scale. “Not applicable” should be used only where a criterion is irrelevant to the assessed context and the reason can be documented. N/A criteria are excluded from the relevant section score.

		Score (0–3)	Evidence / sources	Comments / actions
1 Governance structure				
1.1	Clear coordination structure for recovery and reconstruction: Clear assignment of mandates between national ministries, civil protection agencies, and local municipalities.			
1.2	Local authority capacity assessed (technical/financial/administrative).			
1.3	Recovery leadership is clearly defined (national vs. local).			
1.4	Legal/administrative frameworks support rapid, accountable recovery actions at municipal level.			
1.5	National legal, insurance and administrative frameworks enable risk-reducing recovery, including relocation or property acquisition where necessary.			
1.6	Information regarding decision-making is easily accessible by the public and therefore considered transparent			
<i>Section 1 score</i>				
2 Role of stakeholders				
2.1	Government, NGOs, private sector, research institutions, and community organizations are part of structured recovery processes.			
2.2	Local governments are empowered to co-design and lead reconstruction planning within national guidelines			
2.3	National agencies provide technical, financial, and logistical support during the recovery period proportionate to local capacity.			

2.4	Civil society and residents participate in identifying priorities, trade-offs, and monitoring outcomes.			
2.5	Stakeholder roles are defined in pre-event plans and exercised/trained regularly.			
2.6	Dependence on local volunteers, informal networks and locally based service providers is assessed, including whether these capacities remain available during displacement and recovery.			
<i>Section 2 score</i>				
3 Risk & scenario integration				
3.1	Recovery integrates national hazard mapping, local risk assessments, and climate projections.			
3.2	Local risk information is accessible to both local and national decision-makers.			
3.3	Acceptable residual-risk thresholds are defined, and recovery decisions can be revised as hazard knowledge or climate projections change.			
3.4	Critical infrastructure and essential services are included in risk and scenario assessments, including cascading failures and minimum acceptable service levels during recovery.			
3.5	Risk and recovery scenarios are translated into land-use decisions, including development restrictions, zoning changes, setbacks, or relocation where required.			
3.6	Recovery plans demonstrably reduce future exposure and vulnerability rather than recreate pre-disaster risk.			

<i>Section 3 score</i>				
4 People-centred inclusion, equity, and legitimacy				
4.1	Affected people are involved in reconstruction choices (location, standards, phasing), and local and Indigenous knowledge is incorporated where relevant.			
4.2	Groups with specific needs or disproportionate exposure are represented in municipal-level recovery committees.			
4.3	Recovery measures account for specific accessibility, communication, housing, health, care, and cultural needs of groups with specific needs or disproportionate exposure.			
4.4	Grievance/appeal channel exists (e.g. relocation, compensation).			
4.5	Displacement risks and host-community pressures assessed.			
<i>Section 4 score</i>				
5 Resilient reconstruction standards				
5.1	Reconstruction uses updated standards (wind/snow loads, flood allowances, slope stability, foundation/permafrost suitability).			
5.2	Reconstruction incorporates risk-reduction measures; like-for-like rebuilding is avoided where it would recreate unacceptable risk.			
5.3	Maintenance and lifecycle plans are planned and funded.			
5.4	National standards ensure resilient reconstruction of housing.			
<i>Section 5 score</i>				
6 Critical infrastructure and basic services				

6.1	Continuity of operations for essential services (power, water, sewage/waste, telecommunication, transport, health, education) is ensured.			
6.2	Infrastructure rebuilt to remain safe/operational during and after hazards (functional resilience).			
6.3	Single points of failure and isolation risks are assessed, including dependence on a single harbour, runway, road, fibre link, fuel depot or external supply route, and feasible alternatives or responses are identified.			
6.4	Emergency communications and early warning channels upgraded.			
6.5	National standards ensure resilient reconstruction of health, transport, and communication systems.			
6.6	Interdependencies between critical infrastructure and essential services are assessed and addressed (e.g., whether health services can function without water, power, telecommunications, or transport access).			
<i>Section 6 score</i>				
7 Housing, temporary settlements, and relocation				
7.1	Temporary and replacement housing is risk-informed and is not located in areas of unacceptable future hazard exposure.			
7.2	Criteria and thresholds for partial or full relocation are defined, including risk, costs, social impacts, livelihoods, community preferences and decision-making procedures.			

7.3	Relocation of public facilities and critical functions outside high-risk areas is considered and moved where feasible.			
7.4	Community cohesion and sense of place explicitly considered.			
<i>Section 7 score</i>				
8 Livelihoods, economy, and 'build back fairer'				
8.1	Livelihood continuity and recovery are supported, particularly for place-dependent sectors (e.g., fisheries, agriculture, tourism, public services, mining, research, and local SMEs).			
8.2	The costs, benefits, and long-term viability of measures to restore or support affected livelihoods are assessed transparently.			
8.3	Recovery considers the wider viability of the settlement, including demographic trends, workforce availability and access to essential services.			
<i>Section 8 score</i>				
9 Health, psychosocial support, and education				
9.1	Psychosocial and mental health support included in recovery.			
9.2	Health facilities assessed for functional resilience (staffing, supplies, medical evacuation routes).			
9.3	Education continuity planned (temporary learning spaces, remote teaching).			
<i>Section 9 score</i>				
10 Environment, ecosystems, and cultural heritage				
10.1	Reconstruction avoids creating new environmental risk drivers (erosion, slope destabilization, habitat loss).			

10.2	Nature-based / low-regret measures assessed where applicable (coastal buffers, drainage, slope vegetation).			
10.3	Cultural heritage and community landmarks considered (repair/relocation/recording).			
<i>Section 10 score</i>				
11 Financing, insurance, and incentives				
11.1	Funding streams separated: relief vs. reconstruction vs. resilience upgrades (who pays what).			
11.2	Budget includes risk reduction increments (not only restoration) and covers operation & maintenance.			
11.3	Insurance, compensation, public buy-out/property acquisition and other financial incentives support safer recovery choices and do not encourage reconstruction in locations with unacceptable residual risk.			
<i>Section 11 score</i>				
12 Preparedness for recovery (pre-event readiness)				
12.1	A recovery management framework or manual exists and defines the transition from response to recovery, arrangements for damage and loss accounting, expedited permitting and procurement, and recovery communications.			
12.2	Exercises/drills/training include recovery components (not only evacuation/response).			
12.3	Mechanisms exist for post-disaster reviews and lesson integration into standards/plans.			
<i>Section 12 score</i>				
13 Monitoring, learning, and proof of BBB				

13.1	BBB indicators defined (e.g., % assets relocated out of risk zone; redundancy added; downtime reduced; safer housing coverage; early warning coverage).			
13.2	Public reporting schedule and ownership of monitoring defined.			
13.3	BBB safeguards are documented to prevent maladaptation and practices that recreate or transfer risk.			
13.4	Post-event lessons are captured and fed into local planning and national policy review.			
13.5	Recovery progress is jointly reviewed by national and local stakeholders.			
<i>Section 13 score</i>				

The overall BBB score is the average of the 13 section scores, giving each thematic section equal weight regardless of the number of criteria it contains.

Overall BBB score

Score	Assessment
0.00–0.74	Major gaps / largely unaddressed
0.75–1.49	Initial / fragmented
1.50–2.24	Developing / partly integrated
2.25–2.74	Substantially integrated
2.75–3.00	Advanced / comprehensive

- Overall scores should be interpreted alongside individual section scores. A high aggregate score does not compensate for critical deficiencies in risk reduction, life safety or reconstruction in areas of unacceptable residual risk.
- The overall score is a diagnostic summary rather than a pass/fail threshold or certification of Build Back Better. The section profile and individual criteria are intended to identify strengths, gaps, and priorities for action.
- Particular attention should be given to criteria scoring 0 or 1. These indicate areas where additional planning, clarification of responsibilities, resources, or implementation may be required.

- Any deficiency that could result in unacceptable residual risk, loss of life, failure of essential services, or recreation of known hazard exposure should be treated as a critical gap irrespective of the overall score.