

Towards a green and inclusive post-pandemic recovery of the Blue Economy and coastal communities (RRR-Coast)

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Key Messages

- The COVID-19 impact on the blue economy in Scotland ranged from severe to moderate.
- The tourism sector was widely seen to have been the most affected by far.
- At the time of the first survey (ending in March 2024), almost all local authorities indicated that their area had partially or fully recovered from the impacts.
- Of the four countries investigated (Scotland, Germany, Costa Rica and the USA), Scotland had the most widespread consideration of green recovery concepts post-pandemic.
- The most common green recovery strategies adopted at the local level were consideration of environmental concerns, inclusivity and decarbonisation (Fig. 2).
- Consideration of green recovery concepts in Scotland is facilitated by its policy landscape (Fig. 3).
- However, most policies do not devote much attention to questions of governance, which can result in a barrier to green recovery implementation.¹
- The most commonly cited barriers to implementing green recovery measures were lack of staffing capacity and financial resources, and difficulties identifying actions to prioritise.

1. Context

This research brief presents some key results and recommendations from a joint research project funded through the Trans-Atlantic Partnership Recovery, Renewal and Resilience in a Post Pandemic World call. The project was undertaken in four countries, Scotland (UK), Germany, Costa Rica and the USA by the following partners: the University of Glasgow in Scotland, the United Nations University Institute for Environment and Human Security in Germany, the University of Costa Rica and the University of Massachusetts at Amherst in the USA.

The overall aim of the project was to provide science-based guidance for post COVID recovery of coastal communities through a trans-national comparative study across coastal areas within the project's four countries. The project had four scientific objectives:

- Investigate the impacts of COVID-19 and subsequent response measures on the Blue Economy, the socio-economic structure and changing inequalities and vulnerabilities of the selected coastal regions as well as their natural environment.
- Assess opinions and preferences for recovery in each sector of the Blue Economy.
- Investigate current financing as well as regulatory/policy bottlenecks towards a

greener/more resilient and equitable future for the Blue Economy.

- Characterize key enabling factors across all regions that lead to response performance so as to inform the development of future strategies for a green and inclusive coastal recovery.

This research brief presents results for Scotland focusing on the first two objectives. A trans-national policy brief will address the last objectives and will be presented at a later stage.

2. Research methods

- A first survey of local authorities and planning agencies was distributed from June 2023 to March 2024 to understand COVID-19 impacts, recovery, the deployment of green recovery and resilience strategies and barriers to green recovery.²
- Depending on the questions, between 10 and 12 local authorities in Scotland responded to the survey.
- A second survey of a wider range of local and regional stakeholders was distributed in 2025, addressing barriers and enablers towards the adoption of a green recovery framework.³
- An analysis of national and regional policies at different governance scales was carried out to assess how they contribute to a green recovery.⁴

3. Green Recovery framework

The research was principally informed by the Green Recovery framework we developed in the project (Fig. 1).⁵

Green recovery in the context of our research was defined as “strategies and measures that combat the social, economic and environmental impacts of the global COVID-19 pandemic. It facilitates long-term transformative change towards sustainability, biodiversity protection, resilience and climate neutrality”.⁵ The definition and concept are applicable to all shocks and are not specific to the COVID-19 pandemic.



Fig.1. Conceptual Green Recovery framework.⁵ The framework is built on four pillars (climate action and social, economic and environmental dimensions). For a recovery to be deemed green according to this framework, at least one of the different components of each pillar needs to be addressed including all the dimensions with a red outline [CC BY 4.0].

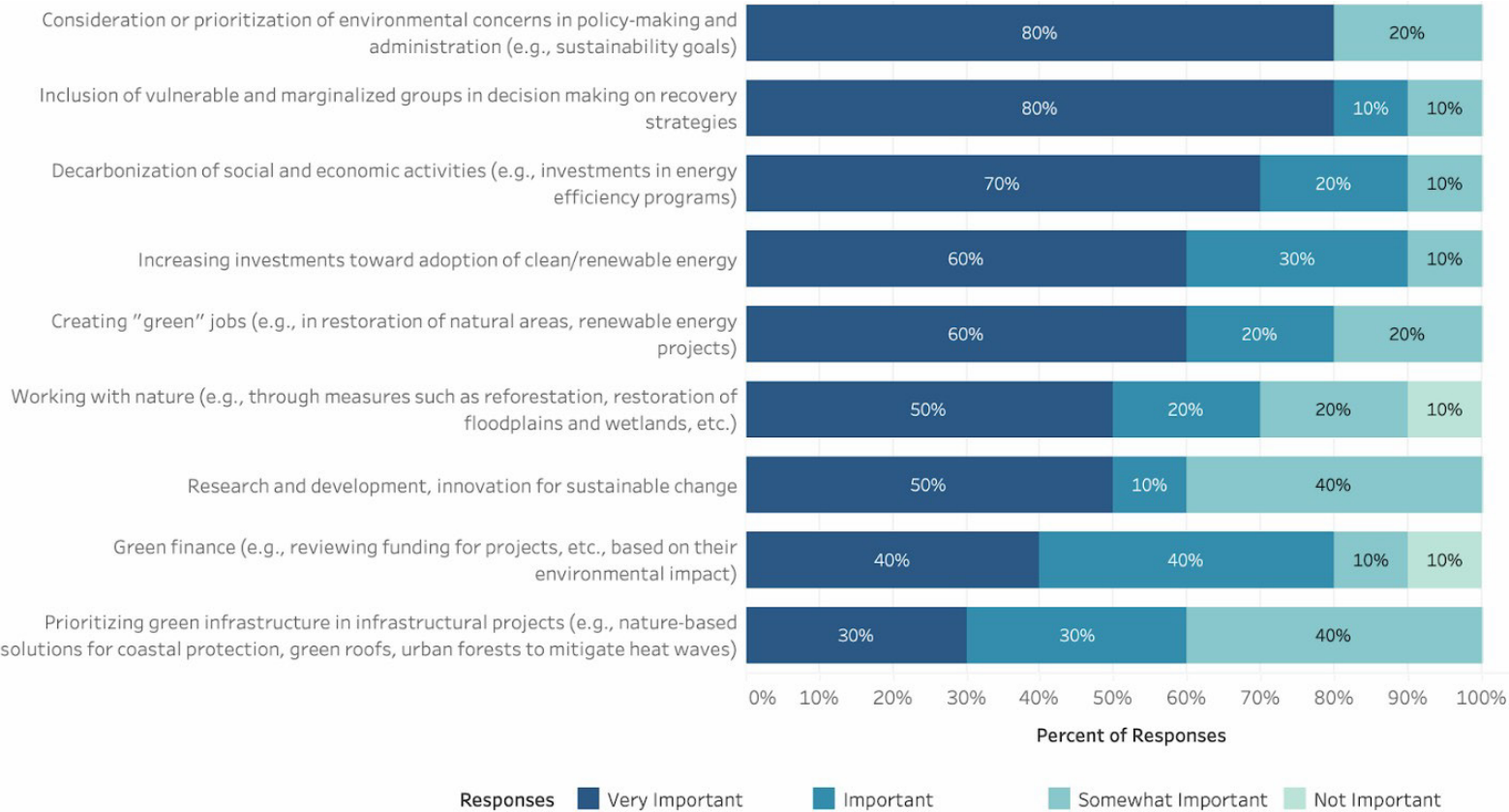
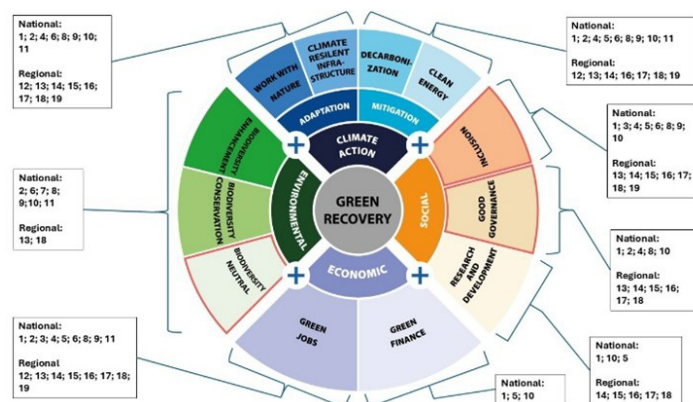


Fig.2. Level of importance of green recovery strategies for sustainable development in Scotland [CC BY-NC 4.0].²

4. Key recommendations

- The green recovery concept can be expanded to green and sustainable development and linked to resilience building in the blue economy. As such, its components are relevant well beyond the specific context of post-pandemic recovery, and could be more systematically considered in policymaking in Scotland.
- The proposed framework can link policies together and inform future policies in Scotland, and this could be applied beyond the blue economy. The Scottish National Adaptation Plan 2024-2029 could serve as a testbed for policy integration as it is the policy addressing the framework most comprehensively to date.
- Consideration of the green recovery framework should be accompanied by increasing human and financial resources at the local level, one of the main identified barriers to its implementation according to our research.
- Governance arrangements should support co-ordination between governments and other organisations working across different scales, and local stakeholders should be supported to identify and pursue their own priorities.



National

- 1: Economic Recovery Implementation Plan (2020)
- 2: Update to the Climate Change Plan (2020)
- 3: Covid Recovery Strategy (2021)
- 4: Just Transition - A Fairer, Greener Scotland (2021)
- 5: National Strategy for Economic Transformation (2022)
- 6: Blue Economy Vision (2022)
- 7: Biodiversity Strategy to 2045 (2023)
- 8: Scottish Fisheries Management Strategy (2020)
- 9: National Planning Framework 4 (2023)
- 10: Scottish National Adaptation Plan (2024)
- 11: Infrastructure Investment Plan (2021)

Regional

- 12: Green Freeports (2023)
- 13: South of Scotland Regional Economic Strategy (2021)
- 14: Islands Growth Deal (2023)
- 15: Moray Growth Deal (2021)
- 16: Tay Cities Region Deal (2020)
- 17: Ayrshire Growth Deal (2020)
- 18: Borderlands Inclusive Growth Deal (2021)
- 19: North East Regional Economic Strategy (2024)

Fig.3. National and regional policies in Scotland relevant to green recovery.⁴

References

- ¹ Clelland D., Renaud F. (2025). Do post-pandemic policies support green recovery? Blog for the University of Glasgow Centre for Public Policy. https://www.gla.ac.uk/research/az/publicpolicy/news/headline_1181674_en.html.
- ² Vicarelli M., Clelland D., Gavin P., Hartmann L., Renaud F., Rodriguez C.E., Walz Y., Zadow J., Netele J., Nthambi M., Rodriguez D. (2025). A green and inclusive post-pandemic recovery of the Blue Economy and coastal communities. University of Costa Rica (Costa Rica), University of Glasgow (UK), United Nations University (Bonn, Germany), University of Massachusetts Amherst (MA, USA), 90p. doi: 10.7275/55539.
- ³ Clelland D., Esquivel-Rodriguez C., Renaud F. (In Preparation) Priorities and Challenges for Green Recovery in Coastal Regions: A Comparative Study of Scotland and Costa Rica.
- ⁴ Clelland D., Hartmann L., Vicarelli M., Walz Y., Renaud F. (2026) Do post-pandemic policies support a holistic green recovery? Evidence from three coastal regions. Sustainability: Science, Practice and Policy 22:2657138. <https://doi.org/10.1080/15487733.2026.2657138>
- ⁵ Hartmann L., Walz Y., Clelland D., Esquivel-Rodriguez C., Riganti P., Vicarelli M., Renaud F.G. (2025): A conceptual framework for a post-COVID-19 green recovery of the Blue Economy. Marine Policy 171:106446. <https://doi.org/10.1016/j.marpol.2024.106446>.