

COMPARATIVE ANALYSIS OF THE GAP AND OPPORTUNITIES OF COUNTRIES UNDER THE CLIMATE RESILIENT FOOD SYSTEM ALLIANCE

The comparative analysis offers a cross-country evaluation of gaps and opportunities in enhancing climate-resilient food systems across various areas, including governance and coordination, policy frameworks, financing, and implementation capacity. For each country, the assessment identifies key gaps, assesses their severity, and highlights potential opportunities along with the readiness to act on them.

Overall, governance and coordination gaps stand out as the most consistently severe across countries, indicating fragmented mandates and weak cross-sectoral linkages. Meanwhile, opportunities often focus on establishing or strengthening national councils, task forces, and steering committees to promote coherence.

Table 1 below shows a comparison that helps identify where urgent interventions are needed, where momentum is already building, and how best practices can be harnessed to speed up progress toward a resilient and sustainable food system.

Table 1 Comparative analysis

Domain	Country	Gap	Opportunity	Gap Severity	Opportunity Readiness
Governance & Coordination	Bangladesh	Fragmented coastal-agriculture mandates and weak subnational coordination	Integrate coastal & agricultural planning into NAPs; strengthen inter-ministerial platforms	High	Medium
Governance & Coordination	Belize	Weak institutional linkages between fisheries, coastal management, and agriculture	Establish a cross-sector coordination task force; formalize roles	Medium	Medium
Governance & Coordination	Ethiopia	Inconsistent regional coordination and limited decentralization for implementation	Leverage adaptation councils and strengthen regional planning	High	Low
Governance & Coordination	Fiji	Overlapping mandates between DRM, fisheries, and agriculture	Formalize a national food–climate council with SIDS representation	Medium	Medium
Governance & Coordination	Lesotho	Fragmented roles across ministries and weak vertical coordination	Set up a steering committee under NAP with subnational reps	High	Medium
Governance & Coordination	Pakistan	Fragmented federal–provincial mandates and limited cross-sector alignment	Create a climate–food force to align NAP/NDC and sector plans	High	Medium
Governance & Coordination	Panama	Limited cross-ministry coherence on food, water, and climate	Embed CRFS actions into national development and sector plans	Medium	High

Governance & Coordination	The Gambia	Disjoint coordination, especially for the coastal and agricultural sectors	Use smallholder and coastal platforms to integrate planning	High	Medium
Governance & Coordination	Somalia	weak coordination between federal and state entities.	Institutional integration: capacity-building mandates should be embedded within relevant ministries, such as a dedicated climate training unit under the MoECC		
Governance & Coordination	Brazil	Fragmented institutional support and weak institutional safety nets leave smallholders exposed to climate and market shocks.	The National Food System Pathway provides a multisectoral framework that could strengthen coordination if aligned with timely implementation.		
Finance & Incentives	Bangladesh	Limited access to climate finance for smallholders and unclear incentives	Develop bankable pipelines for GCF/FAST and promote blended finance	High	Medium
Finance & Incentives	Belize	Few incentives to mobilize private sector investment in resilient agriculture	Pilot blended finance and public–private partnerships for fisheries/agroforestry.	Medium	Medium
Finance & Incentives	Ethiopia	Budget constraints and limited fiscal space for resilience measures	Mainstream climate finance in national budgets and donor coordination	High	Low
Finance & Incentives	Fiji	High dependency on donor funding and limited insurance uptake	Develop insurance pilots and resilience financing instruments for SIDS	High	Medium
Finance & Incentives	Lesotho	Low agricultural finance and limited private capital for value chains	Establish public–private financing windows and blended funds	High	Medium

Finance & Incentives	Pakistan	Low private sector investment and misaligned subsidies	Design climate-smart finance schemes and de-risk investments	High	Medium
Finance & Incentives	Panama	Smallholder credit gaps and limited incentives for climate-smart investments	Incentivize value-chain financing and concessional loans	Medium	High
Finance & Incentives	The Gambia	Dependence on external donor financing and limited domestic instruments	Pilot microfinance and targeted resilience credit lines	High	Medium
Finance & Incentives	Somalia	Limited structured national mechanism for climate finance mobilization. Limited institutional capacity to access multilateral and bilateral climate funds.	Enhancing institutional readiness to access global climate funds.” Strengthening public-private partnerships in agriculture, energy, and resilience sectors	High	Medium
Finance & Incentives	Brazil	Limited incentives to improve storage, handling, and refrigeration infrastructure contribute to high post-harvest losses.	Scaling climate finance, expanding credit schemes, and strengthening payments for ecosystem services (e.g., “Adopt a Park”)	High	Medium
Data & Early Warning Systems	Bangladesh	Insufficient localized climate-agriculture data and forecasting integration	Integrate coastal early-warning with agricultural advisories and strengthen agro-meteorological services.	High	Medium

Data & Early Warning Systems	Belize	Sparse data integration for fisheries and agricultural risk monitoring	Develop regional data-sharing platforms and risk dashboards	Medium	Medium
Data & Early Warning Systems	Ethiopia	Weak coverage of early warning systems in drought-prone regions	Expand community-based drought early warning and market monitoring	High	Low
Data & Early Warning Systems	Fiji	Fragmented data platforms and limited anticipatory-action triggers	Integrate food-climate monitoring into DRM systems and EWS	Medium	Medium
Data & Early Warning Systems	Lesotho	Inadequate data collection, M&E, and limited access to granular forecasts	Invest in national food-security dashboards and digital EWS platforms	High	Medium
Data & Early Warning Systems	Pakistan	Fragmented flood/drought monitoring and weak farmer-level warnings	Develop basin-integrated EWS and ICT-based advisories for farmers	High	Medium
Data & Early Warning Systems	Panama	Gaps in food-water system data and limited M&E frameworks	Leverage regional climate centers and build national M&E	Medium	High
Data & Early Warning Systems	The Gambia	Weak dissemination of forecasts to coastal and farming communities	Strengthen community-level EWS and tailored advisories	High	Medium
Data & Early Warning Systems	Somalia	Scarce and fragmented data on climate impacts, agricultural production, and food system performance.	Knowledge sharing platforms: a national platform will support the exchange of tools, data, and practices across actors and regions	High	Medium

Data & Early Warning Systems	Brazil	Weak integration of climate risk data into localized early warning systems for farmers	Strengthening nutritional monitoring, leveraging land use registrations, and expanding digital EWS		Medium
Technology & R&D	Bangladesh	Limited availability/adoption of salinity and flood-tolerant crops and CSA tech	Scale resilient rice varieties, improve irrigation efficiency, and promote digital advisory.	High	Medium
Technology & R&D	Belize	Low R&D capacity and limited extension for CSA	Foster regional innovation partnerships and farmer field schools	Medium	Medium
Technology & R&D	Ethiopia	Underfunded adaptive R&D and weak extension across agroecologies	Invest in adaptive seed programs and strengthen extension networks	High	Low
Technology & R&D	Fiji	Low adaptation R&D relevant to SIDS contexts	Partner with regional universities to pilot SIDS-focused CSA and storage	Medium	Medium
Technology & R&D	Lesotho	Slow technology transfer and limited adaptive seed programs	Pilot drought-resistant seeds and digital advisory services	High	Medium
Technology & R&D	Pakistan	Underinvestment in R&D and slow uptake of post-harvest tech	Create agri-tech innovation hubs and scale post-harvest solutions	High	Medium
Technology & R&D	Panama	Limited adoption of climate-smart practices among smallholders	Support innovation incubators and processing technology upgrades	Medium	High
Technology & R&D	The Gambia	Low access to affordable CSA technologies	Promote small-scale, locally appropriate innovations and extension	High	Medium

Technology & R&D	Somalia	Weak rural road networks, poor storage facilities, and low levels of irrigation technology undermine production and resilience.	Initiate a technology-driven disaster risk management strategy	High	Medium
Technology & R&D	Brazil	Smallholders have limited familiarity with agroecological methods, sustainable intensification, and climate-resilient techniques.	Expanding the MAIS Programme and CSA initiatives, investing in precision irrigation and renewable energy systems	High	Medium
Nature-based Solutions & Water	Bangladesh	Mangrove loss, coastal degradation, and drainage challenges	Scale mangrove restoration, nature-based coastal defenses, and integrated water management	High	Medium
Nature-based Solutions & Water	Belize	Mangrove degradation and coastal erosion are affecting fisheries & livelihoods.	Advance blue-carbon and marine NbS projects with livelihood linkages	Medium	Medium
Nature-based Solutions & Water	Ethiopia	Soil degradation, deforestation, and watershed loss	Scale landscape and watershed restoration programs with livelihood components	High	Low
Nature-based Solutions & Water	Fiji	Coastal vulnerability and saltwater intrusion risks to production	Implement community-based NbS (mangroves, reef restoration) linked to food systems	High	Medium
Nature-based Solutions & Water	Lesotho	Soil erosion and seasonal water stress are affecting yields	Invest in integrated watershed management and recharge solutions	High	Medium

Nature-based Solutions & Water	Pakistan	Water stress, glacier melt risks, and flood-prone basins	Pilot IWRM and basin-scale NbS (Indus basin restoration)	High	Medium
Nature-based Solutions & Water	Panama	Deforestation impacts on the water supply and sedimentation	Promote forest-water NbS in priority basins and riparian restoration	Medium	High
Nature-based Solutions & Water	Somalia	Severe environmental degradation from deforestation, charcoal production, soil erosion, and water runoffs.	Support for smallholder farmers: investments target climate-smart agriculture and improved rural financing.”	Medium	
Nature-based Solutions & Water	Brazil	Water availability and irrigation are not prioritized in national food security planning.	Strengthening ecosystem service programs, restoring landscapes, and expanding irrigation in drought-prone regions	Medium	
Nature-based Solutions & Water	The Gambia	Wetland degradation and coastal erosion	Combine agroecology, wetland restoration, and mangrove rehabilitation	High	Medium
Inclusive Value Chains	Bangladesh	Women and youth face limited access to markets and finance	Design women/youth-targeted finance windows and strengthen cold chains	High	Medium
Inclusive Value Chains	Belize	Smallholders lack market access and value-chain linkages	Promote agroforestry incomes and inclusive agribusiness models	Medium	Medium
Inclusive Value Chains	Ethiopia	Low integration of farmers into resilient markets	Support cooperatives and localized processing for CSA markets	High	Low
Inclusive Value Chains	Fiji	High import dependence and weak local supplier networks	Strengthen resilient local supply chains and fisher cooperatives	Medium	Medium

Inclusive Value Chains	Lesotho	High post-harvest losses and market access constraints	Establish women/youth processing hubs and market linkages	High	Medium
Inclusive Value Chains	Pakistan	Smallholder exclusion from formal value chains and market risks	Develop digital market platforms and aggregation services	High	Medium
Inclusive Value Chains	Panama	Value chains are not fully climate-proofed and suffer post-harvest losses	Invest in cold-chain and processing investments to reduce losses	Medium	High
Inclusive Value Chains	The Gambia	Marginalization of small-scale fishers and farmers	Support community-based processing and market access programs	High	Medium
Inclusive Value Chains	Somalia	Women and youth face cultural and structural inequalities in access to land, credit, and decision-making.	Localized training and continuous learning through universities and training centers to build technical skills in adaptation, finance, and project execution	High	Medium
Inclusive Value Chains	Brazil	Women and youth are underrepresented in agricultural training and technical assistance programs. Smallholders and family farmers remain highly vulnerable to climate risks.	Expanding cold chain and storage infrastructure, scaling gender- and youth-sensitive training, and linking social protection with new green job opportunities.	High	Medium
Policy Coherence	Bangladesh	NAP/NDC and sector policies are not fully aligned with coastal food-system needs	Align CRFS priorities in NDC/NAP updates and sector plans	High	Medium
Policy Coherence	Belize	Climate and agri policy remain siloed	Mainstream CRFS into national policy frameworks	Medium	Medium

Policy Coherence	Ethiopia	Subnational plans are sometimes disconnected from national NDCs	Harmonize food-system priorities across scales in adaptation planning	High	Low
Policy Coherence	Fiji	Disjoint disaster risk and food policies	Embed food resilience into DRM and national strategies	Medium	Medium
Policy Coherence	Lesotho	Fragmented provincial and national policy linkages	Legal review and mainstream CRFS into NAP and sector plans	High	Medium
Policy Coherence	Pakistan	Inconsistent alignment between food-security plans and climate commitments	Conduct policy review to align NAP, NDC, and agriculture strategies	High	Medium
Policy Coherence	Panama	Partial policy integration with opportunities for strengthening	Policy workshops to integrate CRFS into development planning	Medium	High
Policy Coherence	The Gambia	Limited coherence between coastal, agri, and climate policies	Harmonize land-use, coastal, and agricultural policies	High	Medium
Policy Coherence	Somalia	Inconsistent alignment between national climate goals (NAP, NDC) and sectoral priorities.	Harmonizing climate strategies with agriculture, water, and food security policies could strengthen Somalia's capacity to implement its NAP/NDC.	High	Medium
Policy Coherence	Brazil	Policies inadequately align nutrition, food safety, and agricultural production.	Food system strategies should incorporate social protection, skills training, and rural employment initiatives.	High	Medium

Table 2 Scoring methodology

Dimension	Score	Criteria
Gap Severity	High	Structural/systemic barriers; weak institutional capacity; major funding/technology deficits; risks to national food security if unaddressed.
	Medium	Some gaps exist, but partial progress is underway; reforms/projects tackling issues though fragmented or small-scale; moderate risks, manageable with support.
	Low	Minor or localized gaps; strong governance, policies, and financing already in place; risks well mitigated.

Opportunity Readiness	High	Strong enabling environment (policies, partnerships, finance); clear investment pipelines and institutional support; existing capacity to scale interventions.
	Medium	Partial enabling environment; some promising pilots/initiatives, but not systemic; needs targeted support to scale.
	Low	Little or no enabling environment; weak finance/governance/data capacity; requires significant external support.
Evidence Source		Scores derived from UNFCCC Climate Resilient Food System Alliance country diagnostic reports (2023–2025) .