5.25 SYSTEMIC APPROACHES TO RISK ANALYSIS

Tools (national risk inventory systems to systematically monitor losses and assess threats), anticipatory mechanisms, shock-responsive safety nets, insurance and micro-borrowing mechanisms.

What, in brief, is the solution?

New and innovative approaches are required to better understand and manage the interconnected threats to food systems. Current risk management and governance mechanisms and approaches are inadequate for dealing with the way in which risk accumulates and is realized across sectors and scales. Systemic risk assessment that transcend sectors can help make sense of how agriculture, markets, nutrition, public health, transportation, etc. are interconnected and can facilitate the propagation of risk in ways that we have not prepared for. Governance of such systemic risks requires shifts in the institutions, technologies, and personnel that manage risk, and changes to ecological, economic and social processes including consumption and resource use patterns. To build resilience in food systems, effective governance of systemic risks must be adaptive and multiscale. It must rely on iterative learning, community acceptance of adaptations, planning, policy-making implementation and evaluation.

Therefore, this solution entails making food systems more resilient through the application of systemic approaches to risk analysis, and accelerated learning methods, that in turn encourage transformations towards more integrated, agile management systems.

Source from which the solution emerged (survey, member states, leadership team, others)?

UNDRR has been engaging with multi-stakeholder initiatives to better understand systemic risk since 2017. The findings of UNDRR's forthcoming GAR Special Report on Drought highlight the important transitions that will be instrumental to managing the risks that threaten both food system resilience and the Sustainable Development Goals, in general. Reducing risk to food systems and building resilience depend on adaptive governance mechanisms built on a foundation of systemic analysis of risk to ensure that the threats to food systems can be better understood and managed.

What problem is the solution trying to address in food systems?

Information used to understand risk in food systems is often sector-specific and short term. Such siloed and disconnected analysis often focuses on a narrow outcome, such as water availability rather than seeking to build a resilient food system. A wider range of risk drivers such as involuntary migration, unplanned urbanization and rising inequality are seldom considered as being integral parts of the wider food system. Single issue and short-term policy fixes hide wider connections. Assessing the threats to food systems requires more systemic and integrated approaches across multiple scales and disciplines that reflect the ways the drivers of risk are interconnected. This solution aims to highlight resilience-building options that pay multiple dividends in protecting food systems as well as supporting the attainment of all SDGs.

How does the solution relate to your Working Group and its goals?

This solution aims to support the cross-cutting efforts of Action Track 5. The objective is to facilitate Member States and their development partners to understand threats to food systems in a holistic way. This solution aims to empower them to better understand root causes to prevent the propagation of risk in food systems, as well as prepare for, withstand, and recover from shocks and stressors.

Theory of Change, assumptions, risks, likelihood of implementation

Impact: Food Systems are made more resilient through the application of systemic approaches to risk analysis, and accelerated learning methods, that in turn encourage transformations towards more integrated, agile management systems.

Outcomes:

- Transitions in social-ecological systems are better managed through collaborative, cross-sectoral approaches that address drivers of risk.
- Flexible, adaptive governance architecture is capable of the coordinated action needed to meet the challenges of sustainably managing the multiple systems required to build resilience.
- Emergence of innovative risk management strategies that are rooted in the complexity, ambiguity and diversity of interconnected systems.

Outputs:

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1. Systemic risk information access, analysis, organization	• Supporting Member States to develop national risk inventory systems to systematically monitor losses and assess threats to food systems across sectors • Supporting Member States to ensure national agencies are able to connect information with incentives and support to integrate new approaches to governance of systemic risks.
2. Catalyze new information systems	• Articulating the benefits of proactive risk management including co-benefits for other public goods, and costs of inaction, and creating a compelling narrative/vision for a future that puts resilience first. • Supporting Member State institutions and their partners to integrate systemic approaches to risk assessment in development planning
3. Help and Tools for planning and action	• By facilitating formal, strategic, and systematic coordination across actors (public, private, sectors and levels of governance) beyond *ad hoc* projects • Facilitating inclusive and participatory planning to promote both equity and evidence as a basis for planning • Support the value cases through which Member States can build social protection systems through tools such as conditional cash transfer, temporary employment schemes; micro-insurance and loans; in consideration of the social floor and poverty line. • Upgrade the resilience of wider government financing through results based lending and innovative financial tools such as resilience bonds.
4. Influencing Agenda Setters	• Building on international momentum on climate adaptation and SDG policies to bring attention and resources to the reduction of climate-related risk • Providing evidence for the sound business case of financing systemic risk management approaches and preventative drought management action. • Facilitating shifts in policy responsibility for protecting food system resilience (and similarly for emergent risks such as from climate change) to a unit with political authority and investment authority • Facilitate initiatives to proactively build the resilience of food systems based on inclusive partnerships between government, private sector and civil society • Support Member States to align goals in protecting the resilience of food systems with investment to ensure its viability

How the solution is "GAME CHANGING"

Over the decades, the way we have transformed our planet to meet the consumption needs of an ever-growing population has created new conditions for risks to emerge. This solution is game changing because it provides tools

to help countries keep pace with the rapidly increasing interconnected risks that threaten the resilience of food systems. The approaches underpinning this proposal seek to connect a broad cross-section of stakeholders – recognizing that more perspectives offer a broader portfolio of solutions. It focuses on enhancing the evidence base for decision-making across sectors and siloes, recognizing that only a truly multi-sectoral, multi-stakeholder approach will strengthen the resilience of food systems.

Context for which the solution is best suited (geographic, situational, conflict settings, low income, arid, etc.)

This solution is broadly aligned to processes and actors at the national level, but the implications should be understood to have broader applicability. Many of the principles that inspire this solution and the actions that are proposed could be applied in local government, in organizations or projects. Although the approach has universal relevance, its insights are most pertinent to areas currently at risk to serious food system shocks due to factors such as inequality, conflict, or rapid changes in the hydrological context due to climate change or other factors.

Key actions required

Public Sector: Public sector actors at all levels are critical partners and stakeholders in this approach. Any proposal or intervention arising from the evidence and consultative process described above must first be measured against existing development priorities, strategic policies and realistic economic capacities. In some cases, this may require relatively modest amendments to regulatory codes while in others the shifts required to protect food systems could imply much more fundamental pivoting of existing approaches.

Private Sector: The role of the private sector in growing economies, providing livelihoods and markets and facilitating access must also be balanced with its role in contributing to growing resilience. The expectation of the private sector is that its investments will positively contribute to resilience as opposed to simply avoiding creating what can become burdensome damaged stock. The business case for healthy communities, facilitated trade, safe infrastructure, productive farms and thriving societies will attract private sector partners.

Civil Society: The focus of much of the above solution is on inclusivity, equity and participation. The role of communities in promoting their own expectations for the health of the systems that provide their food cannot be replaced. Their role in contributing to the thriving social, ecological and environmental ecosystem that will ensure sustainable food systems is essential.