

# Environmental Defense Fund submission of views to inform the objectives of the Glasgow-Sharm el-Sheikh (GlaSS) Work Programme on the Global Goal on Adaptation (7/CMA.3)

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## Introduction

Environmental Defense Fund (EDF) is grateful for the opportunity to provide input on how to achieve the objectives referred to in paragraph 7 of the Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation (GLaSS) (7/CMA.3). The GLaSS work programme is a significant step forward in defining and operationalizing the Global Goal on Adaptation (GGA) set forth by Article 7 of the Paris Agreement.

Despite years of increasingly clear scientific evidence, the pace of climate change has surprised the global community and outstripped institutions' abilities to adapt to new climate realities. The recent IPCC WGII report on Impacts, Adaptation and Vulnerability illustrates<sup>i</sup> how ill-prepared current global systems are to adapt to the rate and intensity of climate change. Decision makers must put people and nature at the center as they collectively develop plans and programs to adapt to these changes and strengthen resilience of human and natural systems. The GLaSS work programme presents an impactful forum to deliberate, enhance understanding of the GGA, and strengthen adaptation actions.

## Submission context

Historically, EDF has focused much of its UNFCCC engagement on climate change mitigation. However, much like the global community, EDF also recognizes the urgent need to scale up adaptive measures in response to the catastrophic impacts of climate change already being felt. As such, EDF seeks to be more inclusive of the spectrum of approaches for addressing climate change – both mitigation and adaptation.

To date, EDF's adaptation and resilience work has primarily focused on developing solutions with farmers, fishers and coastal communities to increase their adaptation to changes already being felt and those yet to come. For this reason, EDF is approaching this submission with a focus on the adaptive capacity and climate resilience of vulnerable communities and on the food systems and ecosystems on which they depend. Food systems and ecosystems have indicators, such as those set forth by the global indicator framework of the Sustainable Development Goals (SDGs),<sup>ii</sup> for assessing human wellbeing (e.g., childhood stunting) and system resilience (e.g., biodiversity) to systemic shocks, offering concrete methods for assessing progress towards the GGA. Below, EDF offers a series of lessons-learned and recommendations from its adaptation and resilience work for the GLaSS work programme to consider.

## Recommendations for GLaSS work programme consideration

### Lessons learned from work in coasts and deltas

Coasts and deltas are among the world's most vulnerable places to the impacts of climate change. The U.S. state of Louisiana has lost around 2,000 square miles of coastal marshes since 1930 and is predicted to lose another 4,000 square miles in the next 50 years without adoption of adaptive measures, leading to widespread environmental, social, and economic impacts. It is estimated the hurricanes of 2020 and 2021 that made landfall in Louisiana caused 174 fatalities nationwide and a total of \$92 billion in economic losses to the U.S. economy.<sup>iii</sup> EDF has been working in Louisiana and other coastal systems since 2009 to build scientifically-based and community-informed adaptation plans, policies and projects to reduce the economic loss and human suffering from climate-induced flooding.<sup>iv</sup> Through this work, EDF offers the following recommendations that could be applied to **Objectives (b), (d) and (g)** of the GLaSS work programme:

- Conduct comprehensive planning and adaptive management, which includes working with an inclusive community of stakeholders to set clear and realistic goals that have broad acceptance, build on best available and forward-looking science, acknowledge uncertainties and residual risks, and embrace community-led solutions.
- Institute a collaborative governance structure for resilience, including a Chief Resilience Officer or equivalent. Flood resilience crosses multiple jurisdictional boundaries that provide community infrastructure and services, such as hospitals and schools, that are impacted by climate-driven flooding thus requiring a collective approach to actions.
- Promote a “multiple lines of defense” approach that includes both man-made and natural features working together to provide risk reduction. The use of nature-based solutions is a critical element to provide risk reduction that also restores the environment and provides multiple benefits to society.
- Define or identify metrics that translate the relevant resilience goals (or SDGs) into quantifiable variables. Some examples of metrics include protection of life, reduction in economic losses, distribution of flood risk across socioeconomic groups, protection of community lifelines and strategic assets, persistence of coastal ecosystems, diversity of habitats, maintaining economic drivers, supporting traditional fishing and agriculture communities, and protecting historic and tribally significant cultural resources.
- Innovate solutions across funding streams at all levels. Coastal transformation takes time, so a single infusion of resources is not sufficient. Developed countries should prioritize investments to improve resilience of vulnerable communities, domestically and internationally prior to any disaster, thus reducing the economic resources needed post-disaster and reducing trauma to communities.

### Lessons learned from work with fishers and fishing communities

EDF works within fishing communities in over a dozen countries. Along the Humboldt Current in Chile and Peru<sup>v</sup> EDF has partnered with communities and governments to co-develop forward-looking scientific knowledge about climate effects that can inform climate-smart fisheries management protocols and plans. Additionally, EDF has been working with Chile and Peru to co-design a coastal ocean observing system that will help inform adaptive management strategies at the ecosystem scale.<sup>vi</sup> Through this work, EDF has learned the importance of the following lessons, which could inform **Objective (d)** of the GLaSS work programme:

- Empower and equip producers and communities to thrive under changes already being felt as well as contribute future climate solutions through the merging of adaptive management, cutting edge science, and collaborative decision-making.
- Leverage policy, finance mechanisms, and supply chains to transform systems to both respond to climate impacts and drive climate progress.
- Move rapidly beyond current solutions by fostering innovative disrupters in technology and science to spur ingenuity in solving big challenges.
- Place special emphasis on communities that are simultaneously vulnerable to climate impacts and food system failures.
- Ensure that developing country Parties are provided with support through adequate and predictable finance and other means of implementation, including dedicated support for monitoring and assessing adaptation.

## Lessons learned from work on food systems transformation

Recognizing the critical role the global food system—the system through which the world produces, processes, prepares, distributes, and uses food and food resources—plays in driving, mitigating, and adapting to climate change, EDF is working to transform food systems for the changing future, including by developing methods for maintaining food production under climate change. Viewing **Objective (f)** (monitoring and evaluation (M&E) of the GGA) as well as global efforts to adapt to climate change through a food systems lens would allow for measurement of key climate related risks. Specifically, M&E through a food systems lens could take into consideration:

- Measurement of specific food-related climate risks, such as: increased risk of hunger for different groups or populations; risks of interruptions to food production or distribution driven by weather (e.g., flood, drought, heat); emerging pests and diseases; risk of lost jobs and income related to climate driven food system changes; and risk of loss of biodiversity critical for resilience.
- Identification and prioritization of pathways to adaptation of food systems so that they can feed and nourish the world's growing population in a climate-changed future (i.e., the specific interventions and adaptations that result in transformed food systems).
- Setting internationally comparable but locally applicable targets and indicators for measuring progress (e.g., chronic hunger; undernourishment; childhood stunting; production and use of nutritious foods; equitable access to nutritious foods; etc.), as has been done with the SDGs.
- Development of clear benchmarks and goals (e.g., transformation of food production practices to climate-resilience and nature-positivity; increased access to nutritious foods and developing safety nets for the most vulnerable populations; enhanced resilience of food supply and distribution chains; etc.).

## Suggestions for workshop topics

EDF's understanding of adaptation-related challenges and opportunities has benefited from the work of many, including the Adaptation Committee, Parties, and Observers. Developing a collective knowledge of the challenges of adaptation and how to respond to them, such as through the GLaSS workshop series, will benefit the global community but must lead to sustainably financed context-specific action. EDF suggests the Chairs consider the following additional topics for workshops:

- Centering sustainable, equitable, resilient food systems as a framing for tracking progress on adaptation.
- The potential for nature-positive solutions to enhance climate adaptation.
- Opportunities and needs of research and development for adaptation.

## Conclusion

Clearly defining how to operationalize the objectives of the Glasgow–Sharm el-Sheikh work programme on the Global Goal on Adaptation is a crucial step forward in effectively achieving the Global Goal on Adaptation. EDF hopes that this set of recommendations may be helpful as Parties and the GLaSS work program define how to accelerate progress on adaptation ahead of and after COP27.

EDF is encouraged by Party and Observer focus on adaptation related issues, is eager and committed to continue engaging as an active partner on this crucially important topic, and hopes this commitment encourages others to do the same as the urgent need to scale up adaptive measures requires a global response.

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i IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegria, M. Craig, S. Langsdorf, S. Lösche, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press.

<sup>ii</sup> Global indicator framework for the Sustainable Development Goals <https://unstats.un.org/sdgs/indicators/indicators-list/>

<sup>iii</sup> Caffey, R., Want, H., Niu, H., Froeba, J., & Isaacs, J. (2022). Projected Infrastructure, Revenue and Resource Losses to Louisiana Fisheries from the Hurricanes of 2020 and 2021. Louisiana Department of Wildlife and Fisheries.

<sup>iv</sup> Restore the Mississippi River Delta. <https://mississippiriverdelta.org/>

<sup>v</sup> Fishing for a future. <https://www.edf.org/article/fishing-future>

<sup>vi</sup> In South America's Humboldt Current, this collaboration to build more climate-resilient fisheries brings together two great fishing nations.

<https://blogs.edf.org/edfish/2020/10/06/in-south-americas-humboldt-current-this-collaboration-to-build-more-climate-resilient-fisheries-brings-together-two-great-fishing-nations/>