United States House of Representatives
Select Committee on the Climate Crisis

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"Confronting Climate Impacts:
Federal Strategies for Equitable Adaptation and Resilience"

Questions for the Record

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The Honorable Kathy Castor

1. **The IPCC's latest report provides a stark warning about the climate impacts that are accelerating and could become irreversible for some of our most vulnerable landscapes and communities. In your testimony, you noted that there is an increasing gap between adaptation action taken and what is needed. This adaptation gap is even bigger in lower income communities and for communities of color. What steps should Congress take to address this adaptation gap and ensure that a national adaptation plan addresses the needs of marginalized communities?**

The WG2 Summary for Policy Makers Report directly addresses how reduce the adaptation gap emerging with communities. Specifically, the report focuses on the role of enabling conditions that reduce the adaptation gap. Key enabling conditions include political commitment and follow-through, institutional frameworks, policies and instruments with clear goals and priorities, enhanced knowledge on impacts and solutions, mobilization of and access to adequate financial resources, monitoring and evaluation, and inclusive governance processes.

It was found that political commitment and follow-through across all levels of government accelerate the implementation of adaptation actions. Implementing actions can require large upfront investments of human, financial and technological resources, while some benefits could only become visible in the next decade or beyond. Accelerating commitment and follow-through is promoted by rising public awareness, building business cases for adaptation, accountability and transparency mechanisms, monitoring and evaluation of adaptation progress, social movements, and climate-related litigation in some regions.

Institutional frameworks, policies and instruments that set clear adaptation goals and define responsibilities and commitments and that are coordinated amongst actors and governance levels will strengthen and sustain adaptation actions. Sustained adaptation actions are strengthened by mainstreaming adaptation into institutional budget and policy planning cycles, statutory planning, monitoring and evaluation frameworks and into recovery efforts from disaster events. Enhancing knowledge on risks, impacts, and their consequences, and available adaptation

options do promote societal and policy responses. Furthermore, a wide range of top-down, bottom-up and co-produced processes and sources can deepen climate knowledge and sharing, including capacity building at all scales, educational and information programs, using the arts, participatory modelling and climate services, Indigenous knowledge and local knowledge and citizen science. These measures facilitate awareness, heighten risk perception and influence behaviors.

Inclusive governance that prioritizes equity and justice in adaptation planning and implementation leads to more effective and sustainable adaptation outcomes. Vulnerabilities and climate risks are often reduced through carefully designed and implemented laws, policies, processes, and interventions that address context specific inequities such as based on gender, ethnicity, disability, age, location and income. These approaches, which include multi-stakeholder co-learning platforms, transboundary collaborations, community-based adaptation and participatory scenario planning, focus on capacity-building, and meaningful participation of the most vulnerable and marginalized groups, and their access to key resources to adapt.

With adaptation finance, enhanced mobilization of and access to financial resources are essential for implementation of adaptation and to reduce adaptation gaps. Building capacity and removing some barriers to accessing finance is fundamental to accelerate adaptation, especially for vulnerable groups, regions and sectors. Public and private finance instruments include grants, guarantee, equity, concessional debt, market debt, and internal budget allocation as well as savings in households and insurance. As such, public finance is a critical enabler of adaptation. Public mechanisms and finance can leverage private sector finance for adaptation by addressing real and perceived regulatory, cost and market barriers, for example via public-private partnerships. Financial and technological resources enable effective and ongoing implementation of adaptation, especially when supported by institutions with a strong understanding of adaptation needs and capacity.

Monitoring and evaluation (M&E) of adaptation also are critical for tracking progress and enabling effective adaptation. M&E implementation is currently limited in the U.S. Although most of the monitoring of adaptation is focused towards planning and implementation, the monitoring of outcomes is critical for tracking the effectiveness and progress of adaptation. M&E facilitates learning on successful and effective adaptation measures, and signals when and where additional action may be needed. M&E systems are most effective when supported by capacities and resources and embedded in enabling governance systems.

2. **The IPCC report emphasized the importance of connecting climate mitigation, adaptation, and economic development. What opportunities do you see to better integrate climate mitigation and adaptation in federally supported economic development?**

The WG2 Report Summary for Policy Makers focuses on opportunities presented by Climate resilient development (CRD) that integrates adaptation measures and their enabling conditions with mitigation to advance sustainable development for all. Climate resilient development involves questions of equity and system transitions in land, ocean and ecosystems; urban and infrastructure; energy; industry; and society and includes adaptations for human, ecosystem and

planetary health. Climate resilient development is enabled when governments, civil society and the private sector make inclusive development choices that prioritize risk reduction, equity and justice, and when decision-making processes, finance and actions are integrated across governance levels, sectors and timeframes. Evidence shows that climate resilient development processes link scientific, Indigenous, local, practitioner and other forms of knowledge, and are more effective and sustainable because they are locally appropriate and lead to more legitimate, relevant and effective actions. Government efforts that advance climate resilient development account for the dynamic, uncertain and context-specific nature of climate-related risk, and its interconnections with non-climate risks, such as poverty, lack of education, and underemployment.

Overall, government institutions that enable climate resilient development are flexible and responsive to emergent risks and facilitate sustained and timely action. Governance for climate resilient development is enabled by adequate and appropriate human and technological resources, information, capacities and finance. Climate resilient development practiced in communities is observed to be more effective if it is responsive to regional and local land use development and adaptation gaps, and addresses the underlying drivers of vulnerability. Urban communities are critical place for enabling climate resilient development, especially those along the coasts. The greatest CRD related gains in well-being can be achieved by prioritizing finance to reduce climate risk for low-income and marginalized residents. Coastal cities and settlements make key contributions to climate resilient development through their vital role in national economies and inland communities, national and global supply chains, cultural exchange, and centers of innovation.

3. **How can the federal government better respond to the needs of small island and developing states that are facing dire climate impacts today and in the near term?**

The IPCC AR6 WG2 Report presents evidence on how many small island and developing states are facing an existential threat from climate impacts. Many increasing climate risks are present including water and food insecurity, extreme heat, and flooding, sea level rise poses a distinctive and severe adaptation challenge as it implies dealing with slow onset changes and increased frequency and magnitude of extreme sea level events which will escalate in the coming decades. Such adaptation challenges would occur much earlier under high rates of sea level rise, in particular if low-likelihood, high impact outcomes associated with collapsing ice sheets occur.

Soft limits to some adaptation in small islands and developing states has been reached, but can be overcome by addressing a range of constraints, which primarily consist of financial, governance, institutional and policy constraints. Inequity and poverty also constrain adaptation, leading to soft limits and resulting in disproportionate exposure and impacts for most vulnerable groups. Lack of climate literacy at all levels and limited availability of information and data pose further constraints to adaptation planning and implementation.

A key policy goal should be enable adaptation via strategies that promote governance capacity, financing, and advancing new knowledge of risk and the effectiveness of existing adaptation

strategies (A fuller discussion of these strategies is presented in the response to question #1 present above). It is critical that the strategies focus both on needs widely present as well as issues relevant to specific risks or social or geographic context. For example, responses to ongoing sea level rise and land subsidence in low-lying coastal cities and settlements and small islands include protection, accommodation, advance and planned relocation. These responses are more effective if combined and/or sequenced, planned well ahead, aligned with sociocultural values and development priorities, and underpinned by inclusive community engagement processes.

The Honorable Mike Levin

1. **The IPCC Working Group Two report underscores how climate adaptation can help human populations and natural systems better deal with existing hazards and reduce future risk. However, it also acknowledges that adaptation alone, without parallel decarbonization efforts, will not be enough to stem the worst impacts of climate change. Can you explain why climate adaptation efforts can only be effective when paired with reductions in greenhouse gas emissions?**

The IPCC AR6 WG2 Report and Summary for Policy Makers concludes that the level of global climate risk has increased and is projected to increase further in the coming decades. The Report highlights that while adaptation efforts in the short term can reduce vulnerability and enhance resilience, the rate of climate change if left unaddressed will overwhelm adaptation efforts structurally (i.e., exceeding the resilience capacity) or financially (i.e., increase in the potential cost of adaptation). Equally concerning is that ever more demanding adaptation strategies increase the prospect for maladaptation or adaptation strategies that result in unwanted or unexpected social, economic, or ecological outcomes. By integrating aggressive adaptation and mitigation, the burden of developing and implementation radical or extreme adaptation scenarios can be significantly lessened for many sectors and regions.

Overall, the assessment determines that embedding effective and equitable adaptation and mitigation in development planning can reduce vulnerability, conserve and restore ecosystems, and enable sustainable development. This twin policy approach is however especially challenging in localities or settings with persistent development gaps and limited resources. It is clear that dynamic trade-offs and competing priorities exist between mitigation, adaptation, and development. It was concluded that integrated and inclusive system-oriented solutions focused on adaptation and mitigation and based on equity and social and climate justice can reduce risks and enable sustainable development.

References Page

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