

The Security Risks of Climate Change

President's Council of Advisors on Science and Technology (PCAST) Meeting

19 October 2021

Climate Security Risk Pathways

- Critical infrastructure & military readiness
- State fragility and conflict risk
- Competition between and among states

Framing Climate Security

- Wrong: Rack & Stack; All or Nothing
- Right: Systemic Risk; Structural Force
- Opportunities as well as risks

Climate Security Lens: US Wildfires

Key issues:

intersection
with other risks
(e.g. COVID-19)

threats to
infrastructure

interruption of
training



Soldiers dig a trench around a burning tree trunk while supporting firefighting response efforts at the Dixie Fire in Plumas National Forest, Calif., Sept. 7, 2021. Photo by Army Sgt. Yesenia Barajas

Climate Security Lens: Basra, Iraq



Key drivers of risk :

Heat, sea level rise,
extreme weather

Food & water insecurity

Short term, acute threats &
slow onset threats

Climate Security Lens: China-India Border

Key drivers of risk:

Changing weather patterns & melting glaciers

Lack of trust & existing tensions

Dam development



Climate Security Lens: Allies & Partners in Indo -Pacific

Key factors to consider:

Populations' concerns

Climate hazards

Opportunities for sharing best practices & technology

Q4 What are the top 3 challenges facing Southeast Asia?
(check 3 responses)

Country	Deterioration of human rights conditions	Domestic political instability (including ethnic and religious tensions)	Increased military tensions arising from potential flashpoints (i.e. SCS, Taiwan Strait, Korean Peninsula)	More intense and frequent weather events resulting from climate change (droughts, floods, cyclones, rising sea levels, etc.)	Terrorism	The threat to health from the COVID-19 pandemic	Unemployment and economic recession	Widening socio-economic gaps and rising income disparity
ASEAN	12.6%	35.1%	29.9%	37.5%	5.2%	76.0%	63.0%	40.7%
Brunei	12.1%	12.1%	33.3%	39.4%	9.1%	69.7%	78.8%	45.5%
Cambodia	23.1%	30.8%	30.8%	42.3%	0.0%	76.9%	53.8%	42.3%
Indonesia	15.5%	31.8%	26.4%	29.5%	5.4%	84.5%	67.4%	39.5%
Laos	10.0%	27.5%	7.5%	17.5%	12.5%	90.0%	85.0%	50.0%
Malaysia	16.2%	48.7%	23.9%	22.2%	2.6%	71.8%	70.1%	44.4%
Myanmar	7.1%	45.5%	13.5%	29.5%	9.6%	87.8%	69.9%	37.2%
Philippines	13.4%	11.9%	37.3%	59.7%	3.0%	80.6%	65.7%	28.4%
Singapore	6.3%	36.7%	33.5%	45.6%	7.6%	63.3%	55.1%	51.9%
Thailand	31.3%	52.7%	16.8%	19.8%	3.1%	64.9%	55.0%	56.5%
Vietnam	3.4%	20.0%	59.4%	61.7%	1.7%	77.7%	54.3%	21.7%

Note: For the 2019 and 2020 Surveys, the question posed to respondents was "What are your top 3 concerns for security challenges facing Southeast Asia?" We decided this year to broaden the question to top 3 challenges and presented 8, instead of 5 options.

Climate Security Lens: The National Security Workforce and Institutions

- Scientific and data literacy
- Stronger partnerships between national security agencies and scientific agencies
- Mainstream, not siloed, approach
- Leverage predictive capabilities



Read More :

- [Temperatures and Tensions Rise: Climate Security Risks in the Arctic](#)
- [Melting Mountains, Mounting Tensions: Climate Change & the India-China Rivalry](#)
- [A Security Threat Assessment of Global Climate Change](#)
- [A Climate Security Plan for America](#)
- [World Climate and Security Report 2021](#)