

WASP

**WORLD
ADAPTATION
SCIENCE
PROGRAMME**



United Nations
Climate Change



WORLD METEOROLOGICAL
ORGANIZATION



UN environment
programme



ipcc



GREEN CLIMATE
FUND



GEF



UNITED NATIONS
UNIVERSITY



unesco

making science work for climate adaptation



COLUMBIA CLIMATE SCHOOL
CENTER FOR CLIMATE SYSTEMS RESEARCH

IGES

Institute for Global
Environmental Strategies

Workshop Report
**Strengthening Effectiveness of
Climate Change Adaptation
and Enhancing Climate Security**

*Thursday, January 16, 2025
Hilton Colombo Residencies, Colombo, Sri Lanka*



Contents

Key Takeaways	1
Introduction	1
Background	1
Welcome, Introductions and Objectives	2
Briefing on Adaptation Effectiveness	2
Briefing on Climate Security	3
Current Status of Sri Lanka's National Adaptation Plan and Linkages to Adaptation Effectiveness and Climate Security	3
Engagement of Students and Early Career Professionals	4
Session Summaries	4
Session 1: Plenary Discussion Enhancing Adaptation Effectiveness in Sri Lanka	4
Session 2: Roundtable Discussion – Adaptation Effectiveness	6
Session 3: Climate Security Concerns of Sri Lanka	8
Session 4: Developing an Adaptation Effectiveness Proposal Outline	10
Conclusion	11
Next Steps	11
Annex	12
Annex 1: About the Institutions and Bios of Workshop Hosts	12
Annex 2: Participant List	13
Annex 3: Agenda	15

Acknowledgements

This workshop was supported by funding from the Ministry of Foreign Affairs, Japan project on “Analysis of the transformation of the security environment triggered by climate change and Japan's diplomatic and security approach” (2023-2025) and Columbia University.

We thank Mr. Susith Arambepola and Mr. BVP Jayakody for their support with workshop organization.

We thank Jaad Benhallam and Natalie Kozlowski for their support with the Workshop Report.



Colombo, Sri Lanka
Photo credit: MSM – stock.adobe.com

Key Takeaways

Overall, there was a need and interest in further engagement with WASP on adaptation effectiveness.

A stronger linkage to Sri Lanka's National Adaptation Plan and its implementation is required as key stakeholders and organizations are mostly engaged at the project level.

The participants highlighted the following key **Adaptation Effectiveness** components to increase adaptation effectiveness in Sri Lanka:

- **Integrating climate change** implications in all proposed and ongoing projects to ensure that outcomes are resilient to climate change and are effective.
- **Strengthening adaptation projects** by looking through the security lens can offer a unique perspective on adaptation effectiveness.
- **Enhancing funding for the follow-up and review of the effectiveness** of projects that have been implemented.
- **Obtaining data and improving access including** baselines, launching pilot projects to assess gaps, and developing a comprehensive framework for consistency and effectiveness for implementation.

Introduction

Background

This workshop, *Strengthening Effectiveness of Climate Change Adaptation and Enhancing Climate Security*, was conducted to understand the national adaptation planning and implementation needs of Sri Lanka, the ways and means of enhancing adaptation effectiveness, and the perspectives of stakeholders on adaptation effectiveness and climate security. It also supports strengthening the National Adaptation Planning (NAP) process in Sri Lanka, which is now developing its second National Adaptation Plan, set for completion in 2025. Establishing a comprehensive framework to evaluate the effectiveness of climate adaptation is paramount to the success of climate change plans, projects, and policies.

Strategies such as risk assessments and participatory identification of tailored adaptation actions have been suggested to improve the effectiveness of adaptation efforts and need to be guided by principles of justice, equity, and fairness. These strategies can potentially enhance the climate security outcomes of adaptation plans, suggesting an important synergy between climate change adaptation and climate security. It is vital to integrate climate security into adaptation planning, and further provisions may be required in adaptation planning to address issues related to



Dr. SVRK Prabhakar and Manishka De Mel
Workshop Co-Hosts

climate security comprehensively.

The World Adaptation Science Program (WASP) Secretariat, based at the United Nations Environment Programme (UNEP), is a program focused on researching and providing scientific knowledge to inform climate change adaptation policies and actions globally, aiming to bridge the gap between science and policy decision-making on adaptation strategies.

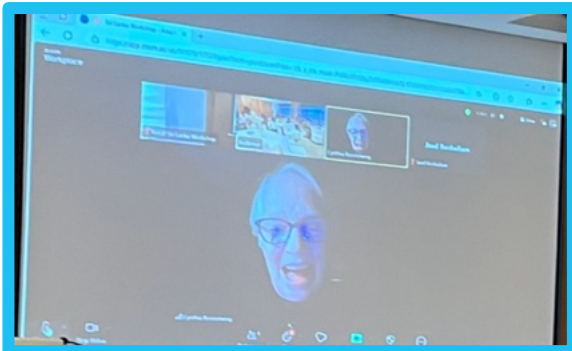
WASP has nine institutional partners; United Nations Environment Programme (UNEP), United Nations Framework Convention on Climate Change (UNFCCC), World Meteorological Organization (WMO), Intergovernmental Panel on Climate Change (IPCC), Green Climate Fund (GCF), Global Environment Facility (GEF), United Nations University (UNU), United Nations Educational, Scientific and Cultural Organization (UNESCO) and Adaptation Fund (AF).



Advancing Effectiveness for Climate Adaptation ([link](#))

This workshop was co-hosted by the Center for Climate Systems Research at Columbia University's Climate School and the Institute for Global Environmental Strategies (IGES).

Welcome, Introductions, and Objectives



Dr. Cynthia Rosenzweig delivering an introductory presentation virtually

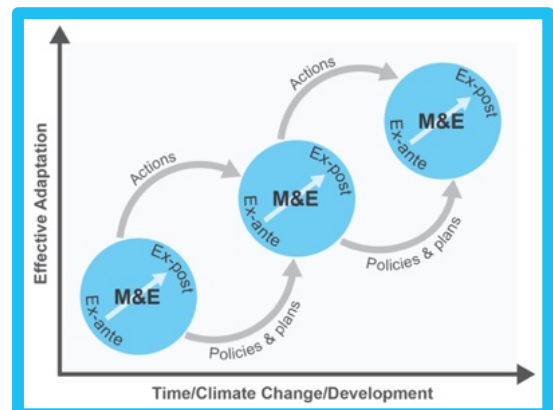
An introductory presentation was provided by Dr. Cynthia Rosenzweig, Senior Research Scientist at NASA Goddard Institute for Space Studies and Columbia University, via Zoom. Dr. Rosenzweig discussed the importance of Adaptation Effectiveness to ensure that the rapid implementation of adaptation projects reduces climate risk. Dr. Rosenzweig went on to discuss how WASP is now developing core projects so that key topics on adaptation can be implemented and operationalized. A core project on Adaptation Effectiveness is currently being developed. She highlighted that the goal is for researchers to help provide knowledge on adaptation for governments and key stakeholders. As countries like Sri Lanka begin to implement large adaptation projects and

update NAPs, Adaptation Effectiveness will be key to their success and long-term development of resilience.

Briefing on Adaptation Effectiveness

A brief presentation on Adaptation Effectiveness was provided by Manishka De Mel. She is a Senior Staff Associate at the Center for Climate Systems Research (CCSR). CCSR is a collaborative entity between NASA and Columbia University. Within CCSR, Manishka De Mel works in the Climate Impacts Group, which carries out applied research on agriculture, urban, and biodiversity sectors, where she leads the Pillar on Nature-based Solutions.

Adaptation Effectiveness, which is a relatively new topic, refers to the extent to which policies and actions reduce both present and future climate risk. She continued by describing the two ways of measuring effectiveness: ex-ante, which looks at potential effectiveness (a forward-looking



Dynamic monitoring and evaluations framework for adaptation effectiveness

approach), and ex-post, which looks at the effectiveness once a policy or action has been implemented. Manishka De Mel went on to describe metrics needed to measure Adaptation Effectiveness, which include both quantitative and qualitative measures. She identified three adaptation effectiveness components: ambition, feasibility, and equity and justice. All three of these factors are important to ensure effective adaptation. She concluded with recommendations outlined in the 2023 Adaptation Effectiveness Science Adaptation Policy Brief (SAPB): supporting the development of guidance tools for assessment methods of Adaptation Effectiveness related to policies, tools, and actions, developing country regional context frameworks and indicators for national policies, and using an Adaptation Effectiveness Framework to identify goals on adaptation. Lastly, an evidence base for projects and programs that have already been implemented must be collected to inform future adaptation actions.

Briefing on Climate Security

Dr. Prabhakar, a Principal Policy Researcher at the Institute for Global Environmental Strategies (IGES), delivered a concise presentation on climate security. IGES, founded in 1998 through the initiative of the Japanese government, focuses on strategic policy research aimed at promoting sustainable development in the Asia-Pacific region. In his presentation, Dr. Prabhakar explained that climate security encompasses both the direct and indirect effects of climate change on peace and security. He emphasized that climate change acts as a threat multiplier, intensifying existing traditional security challenges and human security concerns. The potential for climate change to introduce new threats, such as conflicts over resources that can lead to unrest both domestically and internationally, necessitates that National Adaptation Plans (NAPs) incorporate climate security considerations. Dr. Prabhakar's analysis indicated that climate security is often inadequately addressed in NAPs. While some plans prioritize specific aspects of climate security, like food security, many fail to encompass the full spectrum of climate security dimensions. Furthermore, among the countries that do address climate security, there is often a disconnect between the importance assigned to various security dimensions and the actual challenges they face, suggesting a lack of comprehensive analysis and a solid foundation for addressing these security issues in their NAPs.

Additionally, the presentation emphasized a case study from Sri Lanka, where focus group discussions at the community level and round-table dialogues with national stakeholders uncovered varying priorities regarding the enhancement of National Adaptation Plans (NAPs) from a climate security standpoint. The community-level analysis indicated a notable shift in the aspirations of individuals and families, moving from easily attainable goals to those that are significantly more challenging, reflecting a perceived security deficit and diminished confidence in NAPs' capacity to address their climate security issues. Meanwhile, the round-table discussions with national stakeholders revealed that existing frameworks like NAPs are inadequate for tackling climate security challenges. There is a clear need to enhance NAPs by fostering inclusivity and introducing new strategies, such as a Climate Prosperity Plan, to address the shortcomings of current NAPs.

Current Status of Sri Lanka's National Adaptation Plan and Linkages to Adaptation Effectiveness and Climate Security

Nicholas Simon Taylor, Lead of Adaptation and Resilience at the Global Green Growth Institute (GGGI), provided an overview of his organization and Sri Lanka's upcoming National Adaptation Plan (NAP). Founded in 2012, GGGI is an intergovernmental organization focused on global green growth. It is currently supporting the development of Sri Lanka's updated NAP, expected later this year. He emphasized the need for a strong value chain in adaptation policy to leverage climate finance, noting that GGGI is



Nicholas Simon Taylor (GGGI) presenting an update on Sri Lanka's Second National Adaptation Plan (NAP)

involved in 14 active national adaptation processes. GGGI has been consulting with the UNFCCC on technical guidance for NAPs (NAP 3.0), due later this year, and is integrating peace and security aspects through its collaboration with the PeaceNexus Foundation. He highlighted that NAPs are extremely complex as they integrate science across sectors to create actionable policies. Regarding Sri Lanka's updated NAP, Nicholas Simon Taylor noted that it may differ significantly from past versions due to the new administration, the COVID-19 pandemic, and other challenges. He described it as an "implementation NAP" with both provincial and sectoral plans, with the necessary building blocks for success.



Anusan Sivarasa, Melisha Fernando, Madushi Hewage, Dasun Thilakarathne, Nasya Desinghe, Gayan Illankoon

Engagement of Students and Early-Career Professionals

Six current students/recent graduates participated and supported the workshop, including five from the Masters in Climate and Environmental Management from the University of Colombo, with the support of Professor Erandathie Lokupitiya, Coordinator of the Program.

We thank them for their hard work in supporting the workshop by taking notes and capturing photos throughout the event.

Session Summaries

Session 1: Plenary Discussion Enhancing Adaptation Effectiveness in Sri Lanka

The first interactive session of the workshop focused on Enhancing Adaptation Effectiveness in Sri Lanka. The purpose of this session was for participants to share their experiences related to adaptation plans, policies, and projects in Sri Lanka, focusing on what made these projects effective or not. The goal was to provide practical guidance on how to implement and measure the success of adaptation strategies using clear, data-driven indicators.

During this session, participants emphasized the importance of tracking progress, assessing the impact of adaptation efforts, and ensuring that climate adaptation initiatives contribute to long-term resilience. The presenter posed a question to the audience: "How do you monitor existing projects and measure adaptation effectiveness?"

The key outcomes discussed across the four tables of participants in the workshop highlight a multifaceted approach to climate adaptation. A strong governance structure, including committees and periodic project reviews, is essential for effective implementation and evaluation, with a focus on stakeholder engagement and alignment with existing national climate change frameworks.

Group 1 responded by highlighting the use of a baseline approach, where ongoing and completed projects are periodically reviewed. They emphasized the establishment of committees and the development of governance structures to oversee project implementation and evaluation. Additionally, they noted a strong focus on gender aspects, with particular attention given to women as a primary consideration in the adaptation process.

Group 2 highlighted the use of futuristic targets and technology as key strategies. They emphasized leveraging technology to adapt to climate change, with a focus on identifying technologies based on the current Nationally Determined Contributions (NDCs). This approach helps to ensure that adaptation measures are aligned with global climate goals and can be effectively monitored through the use of advanced technological tools.

Group 3 shared their experience with a project focused on evaluating the impact of erosion in the upstream areas of the Knuckles Mountain Range on downstream paddy cultivation. They suggested that the effectiveness of such projects could be measured through a combination of household surveys, focus group discussions, and by clearly identifying the target groups. This approach helps to gather direct feedback from affected communities and stakeholders, providing valuable insights into the project's impact and its effectiveness in addressing local needs.

Group 4 discussed a watermelon cultivation project, highlighting that women-headed families were particularly successful in implementing this initiative. However, they faced challenges with wild animals, such as monkeys, porcupines, and peacocks, which caused significant damage to the crops, especially during harvest time. To address this, the project introduced a strong market mechanism for the watermelon, ensuring a good market for the produce despite the challenges posed by wildlife damage, and added other fruits such as mangos to diversify the crop yield. This approach helped sustain the project and provided economic opportunities for the involved families.



The following audience question asked what the challenges were in developing adaptation effectiveness benchmarks/metrics. Participants stressed the importance of having a Technology Needs Assessment (TNA) to identify the essential needs of a project so that it can have effective outcomes and be prepared to address challenges throughout. Participants from the Asian Development Bank (ADB) mentioned a flagship program on water security, which aims to provide water to communities in extremely dry areas. **Data consistency remains a key challenge, as oftentimes key players who were involved in the early development of the project are often absent during the implementation stage.** As a result, **key data often gets lost between the varying project stages, negatively impacting its effectiveness.** Group 3 emphasized that many ongoing projects in Sri Lanka are not designed with climate adaptation in mind, making it difficult to measure their adaptation impact.

Another participant highlighted the challenge of global issues often taking precedence over local issues. They emphasized the two facets necessary to ensure effective adaptation at the local level: catalysts, projects that tackle local issues, and carriers, those that are responsible for carrying on the project and continuing to implement the changes brought on by the intervention in the community. Unfortunately, oftentimes funding is not deployed to carriers, so impactful change does not last in the community.

They continued that metrics often focus on upstream activities instead of qualitative data of on-the-ground effectiveness, such as who the funding goes to and the impact of workshops. **In both projects and NAPs, it is recommended that indicators be both process and impact-oriented, not just outcome-oriented.**

The next question directed to workshop participants focused on the requisite data to develop effective adaptation plans. Participants stressed the importance of making data publicly available to stakeholders to ensure transparency. In the Sri Lankan context, stakeholders and organizations often do not have knowledge or access to projects that are being implemented at the national and sub-national levels. Consequently, they may have little or no knowledge of adaptation interventions and climate change activities led by the government. **It is recommended that a national data repository be developed that includes all data produced by public and private adaptation projects.**

The final question in this plenary session asked participants how adaptation effectiveness should be measured. A participant stated that new metrics should not be created, as Sri Lanka already has a set of sustainable development plans that include targets and indicators. Instead, more focus should be placed on **analyzing the existing targets, metrics, and indicators** to see how these **may or may not contribute to adaptation effectiveness**. Despite the existence of metrics, participants also noted that different global conventions form their plans with their metrics – **metrics in these plans must converge to create common metrics at the global level**. Lastly, both the workshop conveners and participants stressed **the importance of developing clear “lessons learned” at the end of each project to understand how future projects could be more effective.**



Session 2: Roundtable Discussion – Adaptation Effectiveness

The purpose of this activity was to allow participants to begin to brainstorm what indicators can be used in adaptation interventions to ensure their effectiveness. Participants were given a sector and were then asked to outline the objectives of the project, potential solutions, and challenges. Participants were then asked to develop a list of program-level and project-level indicators for social, economic, and environmental areas. The following is a report-back on the results from each of the participant groups.

Group 1 Theme: Water Sector

Objectives: Enhance the adaptive capacity of smallholder farmers in Sri Lanka

Solutions: Integrated land use and water management, enhanced land productivity and resilience

Challenges: Issues with diversification and fair distribution of water due to political influence and ownership of water sources (water rights)

Example: Conflicting demands for drinking water and for water in agriculture

Project-level Social Indicators: Inclusivity, health and well-being, availability of risk transfer mechanisms

Project-level Economic Indicators: Number of farmers involved in activities

Project-level Environmental Indicators: Changes in land use patterns in watershed

Program-level Social Indicators: Number of households with running water access, number of disaster casualties and affected people

Program-level Economic Indicators: Increased water-use efficiency, yield, and production; increased household-level income

Program-level Environmental Indicators: Water quality and availability, biodiversity conservation

Risks: Droughts, floods, landslides, diseases

The group noted that timescales and geographies were used to differentiate between project and program-level indicators.

Group 2 Theme: Water Sector

Objective: Catchment area conservation

Solutions: Capacity-building, mapping diversification of water use, improved data collection

Challenges: Climate variability, drought, illegal encroachment

Social Indicators: Improved capacity of community-based organizations, water-related conflicts minimized, diversification of livelihoods

Economic Indicators: Increased water use efficiency, decreased land use

Environmental Indicators: Water quality improvement (both drinking water and agricultural water), demarcation of catchment areas, area of forest conserved

Group 3 Theme: Agriculture and Food Security

Objective: Adoption of climate-resilient crop varieties

Solutions: Increase awareness amongst farming communities on climate-resilient techniques and technology

*All indicators chosen below by this group were program-based outcome indicators based on KPIs

Program-level Social Indicators: Early warning systems across all sectors of society, increasing access to accessible data and knowledge systems, increase income with a focus on equity

Program-level Economic Indicators: Increasing income, access to markets, increase insurance to reduce costs in damage

Program-level Environmental Indicators: Increasing techniques that do not negatively impact biodiversity, reducing conversion of national wildlife to agricultural land, increasing diversity for crops

Group 4 Theme: Biodiversity and Conservation

Objectives: Increase forest cover/decrease invasive alien species/protect headwaters

Solutions: Reduce spread of invasive species, reduce nutrient pollution, focus on conservation education in priority areas

*All indicators chosen below by this group were program-based, with a focus on impacts. This group understands project-based indicators to be location-specific

Program-based Social Indicators: Capacity-building, access to adequate water sources

Program-based Economic Indicators: Agricultural yield

Program-based Environmental Indicators: Increase of native species/biodiversity, increase of forest cover



Session 3: Climate Security Concerns of Sri Lanka

This activity focused on the emerging topic of climate security, most notably in Sri Lanka. Participant groups were asked to think about what types of climate security issues are present in Sri Lanka and how they may affect the Adaptation Effectiveness projects that were developed in the previous activity.

Group 1

Water management was once again highlighted as crucial to climate security. Equitable sharing of water resources and capacity-building are important. The group shared that security is a necessary component of projects. For example, in a water infrastructure project, there must be a system that manages the water resource budget, which is just as important as the infrastructure.

Another interesting climate security issue is that of conflicts between wildlife conservationists and farmers. This group noted the example of the Minneriya National Park, which requires water levels to be kept low to allow elephants to feed on the grass surrounding the reservoir. However, the farmers who also depend on the reservoir to cultivate and irrigate their crops need the reservoir levels to be higher, which the Department of Wildlife Conservation does not want to permit. Such conflicts create vulnerability for certain stakeholders.

Group 2

Consensus-building is important for peacebuilding, which has security implications. Issues such as migration and economic insecurity were discussed. Crop insurance was named as a possible tool to increase climate security, as this would help households with their shock absorbance and resilience to worsened climatic conditions. For example, in Sri Lanka, the dry zone will become drier, and the wet zone will become wetter, representing the hardships this will bring to farming families.

Group 3

The main security concerns outlined by this group were loss of livelihoods and economic security, which could increase people's overall social vulnerability, threatening peace. Like the previous group, water security was also named as an important climate security challenge. Although the group claimed that its project indicators already address these issues, participants stressed the need to focus on local solutions instead of global ones, as not doing so could compromise Sri Lanka's security.

Group 4

An increase in environmental hazards was chosen as a major climate security threat by this group, causing people to become displaced throughout Sri Lanka. Water and food security were also brought up. Indicators that could reflect these security issues include weather patterns like rainfall data, changes in water quality, and changes in seasonal variation.



Session 4: Developing an Adaptation Effectiveness Proposal Outline

Building upon the previous discussions, participants discussed the outline of a potential Adaptation Effectiveness proposal for Sri Lanka at the project or program level. This was aimed at strengthening the capacity of national governments and other stakeholders in operationalizing adaptation effectiveness. Projects must demonstrate how risk has been reduced, as risks and outcomes are not always well-assessed in adaptation interventions. Adaptation effectiveness needs to be evaluated post-project implementation as well. The following displays the Adaptation Effectiveness Proposal outlines of the workshop participant groups.

Group 1

In Sri Lanka, the current land management system is inadequate for ensuring the effectiveness of climate change adaptation. There is a pressing need to separately identify lands suitable for agriculture and development, as these areas are often not clearly distinguished. Although land is categorized by land use patterns, it is not classified into specific zones, which hinders effective planning and management. This lack of zoning is one of the contributing factors to the ongoing human-wildlife conflict, as land designated for development or agriculture may overlap with wildlife habitats. To address these issues, it is essential to develop and implement a comprehensive land management policy that clearly defines land zones for different uses, thereby reducing conflicts and improving climate resilience. **This proposal outlines the underlying issue of land zonation that impacts adaptation in general, thereby having implications for adaptation effectiveness.**

Group 2

Sri Lanka, an island nation, has a population that heavily depends on ocean resources and tourism. However, only 3% of the marine area is currently designated as a Marine Protected Area (MPA). A significant portion of the population, approximately one-third, resides along the coastal areas, which are particularly vulnerable to the impacts of climate change. Despite this, there is a lack of integration of climate adaptation strategies into ongoing projects that support coastal communities. Furthermore, the pollution index in coastal areas is high, exacerbating the vulnerability of these communities. Given these challenges, it is crucial to implement a national spatial plan that integrates and enhances the effectiveness of ongoing projects and activities, particularly those aimed at protecting vulnerable coastal populations and promoting climate resilience. **This proposal highlights the importance of prioritizing adaptation effectiveness in coastal and marine regions. It also emphasizes the need to incorporate climate change considerations into all current and proposed projects, as their success may be jeopardized if climate risks are not properly addressed and planned for.**

Group 3

A significant challenge faced in addressing climate change adaptation and security in Sri Lanka is the lack of sufficient funding for new projects. Additionally, there is inadequate financial support for the follow-up and review of the effectiveness of previous projects. This lack of resources hampers the ability to assess the success of past initiatives and limits the implementation of new, innovative solutions needed for climate adaptation and resilience. To overcome this challenge, it is essential to secure sustainable funding and establish mechanisms for ongoing monitoring and evaluation of both current and future projects. **This proposal outlines the need for adequate funding for adaptation in Sri Lanka, as well as resources for the follow-up and review of the effectiveness and longer-term impact of projects that have already been implemented.**

Group 4

A major issue in evaluating and identifying the shortcomings of climate change adaptation projects in Sri Lanka is the lack of required data and access. To address this, it is essential to first establish national policies that adhere to clear criteria. Pilot projects should be implemented to identify the gaps

in existing projects, followed by a thorough gap analysis to assess where improvements are needed. Starting from this baseline, it will be possible to pinpoint the areas that require attention and develop targeted solutions. Additionally, a comprehensive framework should be created that aligns with multiple projects, ensuring a consistent and effective approach across different initiatives. **This proposal outlines the need for adequate data and its access including baselines and pilot projects to assess gaps, as well as a comprehensive framework for consistency and effectiveness for implementation.**

Conclusion

The workshop concluded with closing remarks from Dr. Maarten Kappelle, Head of the WASP Secretariat. Dr. Kappelle discussed the recently launched WASP working groups that are currently developing projects, including the working group on Adaptation Effectiveness.

The goal of these projects is to operationalize learning and scale up adaptation planning around the world. As Sri Lanka updates its NAP, WASP would like to aid in this endeavor by supporting a variety of activities. Activities such as this workshop will help WASP gain insights into participants' ideas on Adaptation Effectiveness and will give them an understanding of possible future steps to further adaptation work in Sri Lanka. Many other countries can learn from Sri Lanka and the WASP Secretariat will circle back to the workshop participants for further inputs to explore opportunities in Sri Lanka and South Asia.



Dr. Maarten Kappelle delivering the concluding remarks virtually

Dr. Prabhakar and Manishka De Mel thank all participants for joining this workshop and for providing valuable contributions to the ongoing work on Adaptation Effectiveness and Climate Security.

Next Steps

1. **The WASP Adaptation Effectiveness Working Group plans to develop a proposal for a Core Project on Adaptation Effectiveness:**
 - a. Launch pilot projects in 3 countries aimed at guiding developing adaptation metrics to advance the effectiveness of adaptation activities, projects, and National Adaptation Plans. Sri Lanka to be included as a pilot country.
 - b. Identify gaps and capacity needs to operationalize adaptation effectiveness across the Global South.
 - c. Identify new metrics and improve existing metrics to support the effectiveness of adaptation actions and projects focused on biodiversity, agriculture, and urban sectors.
2. Session proposal submitted to the **Adaptation Futures Conference** in New Zealand in October 2025 titled 'Workshop on Strengthening Effectiveness of Climate Change Adaptation in the Global South and Small Island Developing States.'
3. **Launch of Science for Adaptation Policy Brief** 'Strengthening Adaptation Effectiveness Through Improved Metrics.'

Annex 1: About the Institutions and Bios of Workshop Hosts

Center for Climate Systems Research, Columbia University, USA

The Center for Climate Systems Research ([CCSR](#)) is the home of the cooperative relationship between Columbia University and the National Aeronautics and Space Administration Goddard Institute for Space Studies ([NASA GISS](#)) and a research center of Columbia University's Climate School. CCSR was established to provide an enhanced understanding of the Earth's climate and its impacts on key sectors and systems. The NASA GISS/CCSR [Climate Impacts Group](#) develops innovative methods to apply climate information to aid in impact forewarning, risk reduction and resilience building for climate hazards around the world. CCSR also plays a large role in the dissemination of climate change research and information to governments, local and international organizations, educational institutions, and stakeholders. The Group has three main pillars of focus: (1) Agriculture and Food Security; (2) Cities and Urban Areas; and (3) Nature-based Solutions (NbS).

Institute for Global Environmental Strategies, Japan

The Institute for Global Environmental Strategies ([IGES](#)) was established in March 1998 under an initiative of the Japanese government. The Institute aims to achieve a new paradigm for civilization and conduct innovative policy development and strategic research for environmental measures, reflecting the results of research into political decisions for realising sustainable development both in the Asia-Pacific region and globally. According to the Charter for the Establishment of the IGES, the Institute will tackle fundamental challenges to human society, which exist thanks to the bounty of the global environment, and redefine the values and value systems of our present societies that have resulted in the global environmental crisis, to create new ways of conducting activities and a new paradigm for civilization. IGES also recognises that the realisation of sustainable development in the Asia-Pacific region is a vital issue for the international community, as the region is home to more than half of the world's population and is experiencing rapid economic growth. Thus, the region plays a critical role in the protection of the global environment.

World Adaptation Science Programme

The World Adaptation Science Programme's ([WASP](#)) mandate derives from the 16th Congress of the World Meteorological Organization (WMO) held in 2011, at which Resolution 18 on the establishment of the World Climate Programme was adopted. The WCP programme contains four pillars, one of which is the World Adaptation Science Programme (WASP). Its mission is to ensure researchers, policymakers, and practitioners have the best scientific knowledge and capacity necessary to undertake effective climate adaptation policy and action. It is co-led by eight organizations: The United Nations Environment Programme, World Meteorological Organization, Secretariat of the United Nations Framework Convention on Climate Change, Secretariat of the Intergovernmental Panel on Climate Change, Green Climate Fund, Global Environment Facility, United Nations University, and United Nations Educational, Scientific and Cultural Organisation.

SVRK Prabhakar Bio

Prabhakar works with the Institute for Global Environmental Strategies (IGES) in Japan, as a Principal Policy Researcher. He works on transboundary impacts of climate change, vulnerability assessments, risk insurance, loss and damage, mainstreaming CCA and DRR into development plans and policies, adaptation metrics, adaptive policies and institutions, and capacity needs assessments.

He led several research and development projects on climate change adaptation (CCA) and disaster risk reduction (DRR) in South and South-East Asian countries. Prabhakar obtained a PhD in Field Crop Management from Indian Agricultural Research Institute, India, and possesses more than 20 years of experience in participatory research and development with international and national research and

development organizations, including IGES, Kyoto University, UNDP, NIDM, CIMMYT-RWC, IARI, and ICRISAT.

A strong publication record with several peer-reviewed papers supports his work experience. He has been a Contributing Author to the Fifth and Sixth Assessment Reports of the IPCC Working Group II, Coordinating Lead Author for the UNEP Geo-6 report, Lead Author for the UNEP Adaptation Gap Report, ASEAN State of Climate Report (SOE6), and Lead Author for the HIMAP Report.

Manishka De Mel Bio

Manishka has a background in climate change, biodiversity conservation and environmental management with 18+ years of professional experience, gained across some 20 countries worldwide. She is a Senior Staff Associate at the Center for Climate Systems Research (CCSR) at Columbia University's Earth Institute, based at NASA GISS in New York.

She leads the CCSR Climate Impacts Group's Nature-Based Solutions Pillar, collaborating with a range of partners including World Wildlife Fund, United Nations Development Programme and Wildlife Conservation Society. She was a Lead Author on the UNEP's 2020 Adaptation Gap Report's focal chapter on nature-based solutions. In 2007 she received a UNESCO MAB Young Scientist Award. Prior to her work at CCSR, she has previously worked at the Sri Lanka country office of the International Union for the Conservation of Nature (IUCN) and Environmental Foundation in Sri Lanka.

Manishka has an MA in Climate and Society from Columbia University and an MSc in Biodiversity and Conservation and Management from the University of Oxford. Alongside her work at CCSR, she is also pursuing a Certificate in Professional Achievement in Sustainable Finance from Columbia University. In 2018 she completed a Certificate in Business Excellence from the Columbia Business School.

Annex 2: Participant List

Name	Designation/Expertise	Institute
Aayana K	Deputy Director	DOM
BVP Jayakody	Consultant, DRR	N/A
Chaturangi Wickramaratne	Director (EFL) and Researcher Freshwater Ecologist (IWMI)	Environmental Foundation and IWMI
Dakshini Perera	Environment and Climate Change Specialist	Food and Agriculture Organization (FAO)
Dumindu Herath	National Programme Officer	IOM / UN-Migration
Hafsa Jamel	Programmes Manager and Writer/Researcher	Lanka Environment Fund and Parrotfish Collective
Harshini Halangode	Country Programme Manager	UN-Habitat
Isuru Prabha	Town and Country Planner	UN-Habitat
Karin Fernando	Team Leader - Sustainable Development	Center for Poverty Analysis - CEPA
Kusum Athukorala	Chairperson	Global Water Partnership South Asia
Lakshman Rodrigo	Project Manager	ICRAF
Lucy Emerton	Director – Conservation Economics & Finance	Environment Management Group
M D N Cooray	Former Director/ Planning	Ministry of Disaster Management

Madhava Boteju	Deputy Head of Science	Environmental Foundation
Manishka De Mel	Senior Staff Associate	Columbia University
Medhini Igoor	Researcher	Center for a Smart Future
Mehak Sangani	Marine Projects Manager	Lanka Environment Fund
Nadeera Rajapakse	Senior Environmental Specialist	World Bank
Nadiya Azmy	Researcher	Center for Poverty Analysis - CEPA
Nalin Karunatileka	Vice President – Sustainability & Consulting	DFCC Bank (GCF Accredited Entity)
Nalin Munasinghe	Assistant Representative (Programme)	Food and Agriculture Organization (FAO)
Nicholas Simon Taylor	Adaptation and Resilience Lead	Global Green Growth Institute (GGI)
Nilmini Ranasinghe	Assistant Director	Biodiversity Division, Ministry of Environment
Nirmalie Pallewatta	Visiting Lecturer Director/Consultant	University of Colombo University Grants Commission
Piyumi Kalyanawansa	Sustainability Lead	USAID Sri Lanka/Maldives
Preethikaa Jayakody	Director	Department of Meteorology
Pulasthi Amarasinghe	Research Fellow	Institute for Policy Studies - IPS
Saranga Gajasinghe	Focal Point – Climate Change	Asian Development Bank
Sepali De Silva	Assistant Director	Ministry of Environment
Sharmini Ratwatte	Former Chair	Environmental Foundation
Shiranee Yasaratne	Advisor	Biodiversity Sri Lanka
Sumudu Senanayake	Research Scientist/ Deputy Director Natural Resources Management Centre	Department of Agriculture
Susith Arambepola	Consultant, DRR	Asian Disaster Preparedness Center (ADPC)
SVRK Prabhakar	Principal Policy Researcher	Institute for Global Environmental Strategies (IGES)
Vajira Hettige	Policy Specialist (Climate and Environment)	UNDP, Sri Lanka
Vidura Ekanayake	Associate Project Analyst	Asian Development Bank
Students/Recent Graduates		
Anusan Sivarasa	Student - MSc in Climate Change & Environmental Management	University of Colombo
Dasun Thilakarathne	Student - MSc in Climate Change & Environmental Management	University of Colombo
Gayan Illankoon	Student - MSc in Climate Change & Environmental Management	University of Colombo
Madushi Hewage	Student - MSc in Climate Change & Environmental Management	University of Colombo
Melisha Fernando	Student - MSc in Climate Change & Environmental Management	University of Colombo
Nasya Desinghe	Recent graduate	University of Adelaide

Annex 3: Agenda



United Nations
Climate Change



WORLD
METEOROLOGICAL
ORGANIZATION



UN
environment
programme



GREEN
CLIMATE
FUND



gef



UNITED NATIONS
UNIVERSITY



unesco



ADAPTATION FUND

making science work for climate adaptation



Workshop on Strengthening Effectiveness of Climate Change Adaptation and Enhancing Climate Security

Thursday, January 16, 2025

Hilton Colombo Residencies, 200 Union Place, Colombo 2

Agenda

8:45 - 9:10 am: Registration

9:10 - 9:45 am: Welcome, Introductions and Objectives

- Manishka De Mel – Senior Staff Associate – Center for Climate Systems Research, Columbia University (USA) and NASA Goddard Institute for Space Studies (NASA GISS)
- Dr. SVRK Prabhakar – Institute for Global Environmental Strategies (IGES), Japan
- Dr. Cynthia Rosenzweig [Virtual Participation] – Senior Research Scientist – NASA Goddard Institute for Space Studies (NASA GISS) and Columbia University (USA)
- Mr. Leel Randeni – Director, Climate Change, Ministry of Environment
- Getting to Know the Audience

9:45 - 10:15 am: Adaptation Effectiveness and Its Linkages to Climate Security – *Manishka De Mel and Dr. SVRK Prabhakar*

10:15 - 10:30am: Current Status of Sri Lanka National Adaptation Plan and Linkages to Adaptation Effectiveness and Climate Security – *Nicholas Simon Taylor, Lead – Adaptation and Resilience, Global Green Growth Institute (GGGI)*

10:30 - 10:45 am: Break

10:45 - 11:45 am: **Roundtable Discussion – Adaptation Effectiveness**

Brief presentation followed by roundtable discussions and report backs. Identifying important dimensions and elements of adaptation effectiveness, appropriate selection of indicators, and operationalizing indicators using a monitoring and evaluation (M&E) framework.

11:45 am - 12:45 pm: **Plenary Discussion – Enhancing Adaptation Effectiveness in Sri Lanka**

Participants will share adaptation experiences related to adaptation plans, policies, and projects in Sri Lanka, focusing on effectiveness. It will identify factors that hinder the effectiveness of these actions.

12:45 - 1:30 pm: Group Photo and Lunch

1:30 - 3:15 pm: **Session on Climate Security Concerns of Sri Lanka**

Discussion and prioritization of internal and external climate security threats. It will prioritize climate security concerns in terms of urgency of action and identify sources of threats, consider unilateral versus regional solutions, and identify measures to overcome them.

3:15 - 3:30 pm: Break

3:30 - 4:30 pm: **Developing a Framework of Action**

Building upon the previous discussions, participants will identify research needs and gaps to operationalize the adaptation effectiveness framework in Sri Lanka, strengthening both adaptation and climate security outcomes of adaptation plans and actions.

4:30 - 5:00pm: **Conclusion**

- Dr. Maarten Kappelle [Virtual Participation] – Chief, Scientific Assessment Branch (SAB) and Head, Secretariat of the World Adaptation Science Programme (WASP), United Nations Environment Programme (UNEP)
- Dr. SVRK Prabhakar – Institute for Global Environmental Strategies (IGES), Japan
- Manishka De Mel – Senior Staff Associate – Center for Climate Systems Research, Columbia University (USA) and NASA Goddard Institute for Space Studies (NASA GISS)