



Sri Lanka ClimBeR Inception Workshop Report

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Colombo, Sri Lanka

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INITIATIVE ON
Climate Resilience

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CGIAR Initiative on Climate Resilience

The CGIAR Initiative on Climate Resilience, also known as ClimBeR, aims to transform the climate adaptation capacity of food, land, and water systems and ultimately increase the resilience of smallholder production systems to better adapt to climate extremes. Its goal is to tackle vulnerability to climate change at its roots and support countries and local and indigenous communities in six low- and middle-income countries to better adapt and build equitable and sustainable futures.

Learn more about ClimBeR here: <https://www.cgiar.org/initiative/climate-resilience/>

Disclaimer

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LIST OF ACRONYMS

API	Application Programming Interface
AWARE	Early Warning, Early Action and Early Finance
ClimBeR	CGIAR Initiative on Climate Resilience
COP 15	UN Biodiversity Conference
CSG	Climate Smart Governance
DAD	Dept. of Agrarian Development
DMC	Disaster Management Center
ESG	Environmental, Social and Governance
EU	European Union
GHG	Green House Gas
GIS	Geographic Information System
G4R	Governance for Resilience
IPCC	Intergovernmental Panel on Climate Change
IWMI	International Water Management Institute
JICA	Japan International Cooperation Agency Sri Lanka
MAFF	Ministry of Agriculture, Forestry and Fisheries
MPG	Multi-scale Polycentric Governance
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution

SUMMARY

Climate variability and extreme weather events such as floods and droughts continue to increase due to climate change. These changes will have significant impacts on low- and middle-income countries. Without transformative climate adaptation solutions, millions of smallholder farmers will face severe losses because of increased climate variability.

The CGIAR Initiative on Climate Resilience ('ClimBeR') was designed to develop bold transformative climate actions by delivering science and innovation to transform food, land, and water systems that will help smallholder farmers and local communities better adapt to the impacts of climate variability.

ClimBeR aims to increase the adaptive capacity of countries by reducing risk for producers' livelihoods and in value chains; understanding climate security risks and identifying paths to climate-resilient peace; ensuring policymakers have the necessary evidence to develop policies and adaptation strategies; building capacity with policies that bring together local needs and available tools to enable governance for resilience; scaling climate finance; and ensuring social equity.

ClimBeR currently contributes towards increasing the adaptation capacity of six focal countries: Guatemala, Kenya, Morocco, the Philippines, Senegal and Zambia. ClimBeR's work is now being also extended to Sri Lanka, with the support of Japan's Ministry of Agriculture, Forestry and Fisheries (MAFF).

The international Water management Institute (IWMI) will implement ClimBeR's Governance for Resilience (G4R) work stream in Sri Lanka. This includes working closely with partners at the local, national and regional levels to tackle the vulnerability to climate change using multi-scale polycentric governance (MPG) and a transformative adaptation framework, and co-developing products and tools to facilitate early warning, early action and early finance (AWARE) and climate smart governance (CSG).

Expected ClimBeR outcomes

ClimBeR research and development activities in Sri Lanka are expected to contribute to the following global outcomes:

- Bundled climate-smart solutions developed by ClimBeR to be used by at least 300,000 vulnerable farmers, at least 30% of whom are women, in seven focal countries.
- International agencies and policymakers to use products developed by ClimBeR researchers and partners to shape at least nine policies or investments to strengthen agricultural resilience, including at least three aimed at reducing agriculture-related climate security risk.
- At least USD 30 million in new investments to be made through ClimBeR's partnerships focus on disadvantaged groups, women, youth, and vulnerable smallholder farmers, contributing to building systemic resilience.

Workshop

This workshop marks the launch of ClimBeR in Sri Lanka and was organized by ClimBeR in collaboration with the Department of National Planning (under the Ministry of Finance, Economic Stabilization and National Policies), the Climate Change Secretariat (under the Ministry of Environment), and the Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan. The workshop brought together stakeholders from

the agriculture, water and environment sectors as well as from other public and private sector organizations, international agencies, development partners and civil societies.

Workshop objectives

The main objective of this National workshop is to introduce the activities of ClimBeR and discuss how MPG tools, innovative digital solutions and long-term adaptation solutions are shock-responsive and can strengthen adaptation efforts in Sri Lanka.

The specific objectives of the workshop are to:

- Introduce the MPG and transformative adaptation approaches developed by ClimBeR, and activities, expected outputs and innovations, and timelines of the initiative.
- Align ClimBeR outputs and decision support tools (AWARE platform, CSG dashboard) to national and regional strategic climate adaptation policies and implementation processes.
- Discuss mechanisms that build the capacities of local communities and smallholder farmers to promote a locally-led climate adaptation program.
- Build relationships with stakeholders and understand their needs in relation to the activities of ClimBeR.
- Explore opportunities for collaboration and engagement in the development and scaling of ClimBeR's innovative digital decision support tools.

Following the national workshop, a provincial consultation workshop and a field visit was held on 11th and 12th April 2023, in Anuradhapura at Rajarata University of Sri Lanka. Summary of the provincial level consultation workshop is included at the end of this report.

PROCEEDINGS

Welcome and setting the scene *by Dr. Giriraj Amarnath*

Dr Giriraj Amarnath, Governance for Resilience (G4R) Lead of the ClimBeR, in his opening remarks, welcomed the participants and stated that this launch forges a long term commitment between the CGIAR and the Government of Sri Lanka (GOSL). This workshop is the culmination of events that began a year earlier when the GOSL expressed interest in introducing climate adaptation programs to the country, and the subsequent consultations at CGIAR level on how this could be achieved. This workshop has the strong commitment of the Ministry of Agriculture, Forestry and Fisheries (MAFF) Japan, and the support of the Climate Change Secretariat (CCS) and the Department of National Development of Planning (NPD).

Introduction to ClimBeR *by Dr. Ana Maria Loboguerrero*

Dr Ana Maria Loboguerrero, Leader - ClimBeR, provided an overview of the relevance of ClimBeR in today's context of extreme weather events. She said a key principle of the initiative is working through partnerships to ensure that the initiative is demand-driven. The climate extremes that now occur will rise in frequency and severity with temperature increases of 1.5 °C to 2°C. Time is running out, so it is important to scale and localize these solutions early, which is where ClimBeR comes in. Dr Loboguerrero outlined the features and aims of the initiative. ClimBeR enables a shift from incremental changes to transformational change, and builds interdisciplinary and transdisciplinary approaches that enhance the knowledge and awareness of practitioners, policymakers and researchers across scales and sectors to work together to build resilience. ClimBeR will not duplicate any ongoing activities in the countries in which it operates. It will only add value to bridge any gaps through research.

Opening Remarks *by Dr. Mark Smith*

Dr Mark Smith, Director General, IWMI, thanked CGIAR colleagues for introducing ClimBeR to Sri Lanka and welcomed all the representatives of partner agencies and participants. He extended his special thanks to MAFF, Japan, officials from the Japanese Embassy, the Climate Change Secretariat, Sri Lanka, the Presidential Advisor for Climate Change in Sri Lanka, and the Dept. of National Planning, Sri Lanka, for their cooperation and support for the ClimBeR initiative and its launch in Sri Lanka.

This workshop enables discussion on how transformative adaptation solutions would build the resilience of the most marginalised communities in Sri Lanka, in close partnerships of the national and regional levels with IWMI and the broader CGIAR.

Dr Smith explained that ClimBeR is one of 33 new One CGIAR new initiatives that bring together the capabilities of all 12 CGIAR research centres around the world of which IWMI is one, to combat the global challenge of transforming global food land and water systems in ways that

address the climate change challenge. CGIAR strongly emphasises on partnerships to ensure success in delivering and scaling up impacts to reduce poverty, enable gender equality, food and nutrition security, social inclusion, biodiversity, and environmental health. The focus of the projects should be to ensure that policymakers have the necessary evidence to develop context-specific adaptation policies and programmes. These programmes should be approached with high ambition so that by the end of the decade, ClimBeR will reach 30 million farmers across the global South by using digital tools to support policymakers in making decisions on locally targeted climate adaptation investments.

Special Remarks By Mr R. H. W. A. Kumarasiri

Mr R. H. W. A. Kumarasiri Director General, Department of National Planning (*joined online*) reiterated the importance of climate resilience. He said ClimBeR was a timely initiative that had the support of the Government of Sri Lanka (GOSL) and could facilitate grant support. It will enable research on special areas of focus, innovation and data dissemination as well as identify climate adaptation programs in Sri Lanka and areas for improvement. He stated that ClimBeR would help the country in both the policy aspect as well as productivity. By supporting farmers, women and other vulnerable communities, the initiative will help improve agriculture production. Data dissemination will, for instance, enable the identification of climate-smart crops. ClimBeR could also support and develop the overarching agriculture policy, which the Department of National Planning and the Ministry of Agriculture are responsible for developing. The GOSL, however, cannot do this on its own; it requires engagement with all stakeholders, namely the private sector, civil society, development partners and international agencies is necessary. He suggested that a dashboard should be prepared for engagement and capacity building, in discussion with the agencies. The relevant research entities in Sri Lanka must also be invited to work with the partners and share research and innovations.

Special Remarks by Ms. Tanaka Sachi

Ms Tanaka Sachi, of the Japanese Embassy, acknowledged the importance of climate resilience to Sri Lanka. Climate change is affecting water usage, water resources management and agriculture in the country, so innovative solutions are necessary to address these challenges. This workshop provides the ideal opportunity to do this, through shared ideas, knowledge and best practices

Special Remarks by the Chief Guest

Mr R.P.Leel Randeni, Director, Climate Change, Climate Change Secretariat, spoke on behalf of Dr Anil Jasinghe, Secretary - Ministry of Environment. This workshop illustrates the importance of bringing people from different disciplines to make important decisions. IWMI has recognized this need and taken the lead to formulate collaborations to increase the adaptation capacity of Sri Lanka through research. Sri Lanka's vulnerability to climate change has been exacerbated by the economic crisis. Sri Lanka has a low carbon footprint but by submitting its NDCs has targeted

to reduce GHG emissions by 14.5% by 2030 as a commitment to the Paris Agreement. The Ministry of Environment has taken the lead to formulate a road map that will build a carbon-zero country by 2050.

Sri Lanka is currently in the process of revising its National Adaptation Plan and preparing provincial-level adaptation plans to address climate resilience issues at the grassroots level. Other sectoral ministries are also in the process of augmenting adaptation through climate resilience programs to provide sustainable solutions to increase productivity, enhance resilience and mitigate GHG. However, despite mechanisms in place to facilitate documentation, there is little awareness of some of the projects carried out at the provincial level. A holistic picture is necessary if the country is to understand its priorities, attract investors, overcome the economic crisis, increase productivity and alleviate poverty. He said the Ministry could use the CSG Dashboard to further the activities of Sri Lanka's Climate Prosperity Plan, which provides a multi-sectoral overview and highlights climate risks. He advocated the importance of a science-based approach for sound decision-making and affirmed that ClimBeR would provide policymakers, development partners and potential investors with a deeper understanding of how to produce knowledge and innovations that build systemic resilience.

Overview of ClimBeR Governance for Resilience (G4R) with activities in Sri Lanka by *Dr Giriraj Amarnath and Dr Upali Amarasinghe*

Dr Giriraj highlighted the importance of G4R, which is a subcomponent of ClimBeR for building climate resilience in Sri Lanka. Governance is essential for multiscale and multi-sector coordination therefore experts are working on developing the multiscale polycentric governance tool guide through ClimBeR initiative for 7 other countries including Sri Lanka. Bold action must be taken to move from accelerative to transformative adaptation, for which robust institutions and digitally enabled information and data should help. A suite of innovative tools will be made available through the AWARE platform, which enables response from early warning to early action and finance. CSG Dashboard will be launched by the Government of Zambia with the Ministry of Green Economy and Environment, Zambia. ClimBeR addresses three fundamental areas, namely, how Sri Lanka is developing and implementing climate change policies; what adaptation interventions should be pursued at different scales of those interventions; the role of multi-scale governance. Coordination at different levels is important. Consultation meetings will be conducted at the provincial level supported by the Chief Secretary of the North Western province and academics from the Rajarata University to explore multi-scale governance. IWMI is working with several partners at the community level to ensure that adaptation is not looked at only from a policy level but also across scales.

Dr Upali Amarasinghe said meetings will also be conducted to assess governance issues with farmers at the community level. The focus is on adaptation interventions and assessing and adjusting any weak links, and ascertaining whether any adjustments would influence outputs and outcomes. He stated that understanding the MPG transformative adaption tool guide would lead

to better outcomes. Tool guide development will assess the polycentric and transformative nature of four interventions that were carried out in three river basins, namely a climate-resilience integrated water management project, a climate-smart irrigated agriculture project, a climate-resilient irrigation project and a Northwestern province canal transfer project. All have different as well as common aspects.

An analytical framework was then developed to understand the governance components of these interventions. Climate change impacts could affect any of these sectors and can be looked at in three different ways: firstly, any adaptation intervention could have a responsive impact; secondly, some interventions may have a proper governance structure that could lead to some incremental impacts; lastly, whether the transformative interventions lead to systemic change. The linkages between institutions, interventions, outputs, and outcomes were entered into an econometric modelling framework to determine whether any adjustments on weak institutional links will influence the outputs and outcomes. All aspects of the various sectors, intermediate outcomes, outputs and their linkages will be assessed through a comprehensive survey of various stakeholders' perceptions on governance issues. This analysis will develop the MPG transformative adaptation tool guide. Analysis of the transformative nature of these characteristics has been carried out already and identified 19 institutions potentially involved in these interventions.

The same framework will be utilized in all the countries in which ClimBer will be implemented but the interventions and locations can differ. This will also feed into the climate smart governance dashboard and help other projects as well.

Dr Giriraj explained the AWARE platform, which is a short-term response mechanism that enables the translation of climate action into shock-responsive strategies that would convert early warning into early action. The platform is a cloud-based state-of-the-art one which has over 40 indicators on floods and droughts, many of which are API based, and works in real-time mode.

PANEL DISCUSSION ON GOVERNANCE CHALLENGES IN CLIMATE ADAPTATION FOR ENHANCING RESILIENCE

Moderator:

Prof. Buddhi Marambe

Panelists:

Dr. Ananda Mallawatantri, Advisor to President, Government of Sri Lanka

Eng. Mrs. Janaki Meegasthenne, Former Director, Irrigation Department

Dr. Chandra Embuldeniya, Chairman, Technology Development and Innovations Arm of the National Science Foundation

Dr. H. K. Kadupitiya (Director, Natural Resources Management Centre - Department of Agriculture)

Ms. G.T.D. Perera (Assistant Director - Climate Change Secretariat)

Mr. Janaka Hemathilaka, Director, Janathakshan Gte Ltd.

First Round

Question to Ms G.T.D. Perera:

- ***What are the barriers faced when implementing the climate adaptation plan and investment prioritization in addressing the commitment of NAP?***

Answer: Sri Lanka is one of the pioneering countries that in 2016, prepared the NAP as well as identified nine priority sectors and included sectoral plans in the NDCs. But the country has not been able to fully implement the NAP due to a number of constraints. The main barriers to implementation are the lack of finance and information. Poor resource mobilization is a barrier to sourcing and applying for finance. Gaps in policy and governance have been identified in the NDCs where all adaptation actions have not been implemented in the environmental and climate change policies. New adaptation actions cannot be implemented due to the dearth of new technologies and there is also a lack of institutional coordination.

Questions to Dr. Ananda Mallawatantri:

- ***What are the key challenges to policy decision-making when addressing the impact of climate change in Sri Lanka?***
- ***What are the current strategies for moving from incremental to transformational adaptation?***

Answer: As a biodiversity country, Sri Lanka could capitalise on the opportunities provided by the Paris Agreement and COP 15 Biodiversity. IPCC, for instance, the EU's Green Challenge. This is in line with current thinking, the IPCC Assessment Report 6 outlines the need to invest in ecosystem services to benefit from both adaptation as well as mitigation. Policy-wise, several key areas have been identified starting with renewable energy, which, for the hydropower sector, would require ecosystem services. But to take these initiatives forward they must be quantified in economic terms, for which ecosystem economics introduced earlier in this workshop, is invaluable. The government recognizes the need to integrate agencies to achieve a common consensus and has set up a high-level committee of key entities. But projects being currently implemented as well

as those still in the pipeline need systems, data sharing capabilities, economic metrics and rewards to the people at the lowest and most vulnerable levels. A climate rationale is necessary to get investments to help the poor, for which research and other aspects are necessary. Several initiatives and resources to take this forward are already available, for example, work has commenced on a marine special plan. Such initiatives will enable the elevation of the Climate Agenda as well as facilitate new tools for taking it forward.

Question to Mr Harsha Kumara Kadupitiya:

- ***In this transferring of policy decisions to, say, climate action, what do you think are the governance challenges we have at this moment?***

Answer: Climate change hasn't been properly quantified in Sri Lanka. For instance, some of the climate-change-related information available is contradictory. Accurate information is also needed for making policy decisions. There are many institutions in the agriculture sector but there is a lack of coordination among them and some institutions work in isolation. There must be a mechanism to connect them to a cohesive whole which will enable each institution to understand what the other is doing. This will enable multiscale multisector institutions to build local adaptive capacities.

Sri Lanka has many climate-smart technologies, their functions must be clearly documented and inventoried.

Question to Eng. Ms Janaki Meegasthenna:

- ***What are the governance challenges you have experienced in the ongoing adaptation projects?***

Answer: There are five broad challenges. First, adaptation projects often involve multiple sectors, which can create coordination challenges since different sectors could have different priorities and values. Second, adaptation projects often require substantial funding resources that can be difficult to secure and funding is also uncertain, which makes project planning difficult. Third are equity challenges, which are also present in adaptation projects due to their impacts on diverse groups of people with different income levels who live in different geographical locations. Fourth, the decision-making among adaptation projects can be complex as well and can require trade-offs among different objectives, so ensuring that the decision-making process is transparent and inclusive can be challenging. Lastly, monitoring and evaluation are challenging because measuring the effectiveness of adaptation projects is difficult due to the long-term nature of

climate impacts, and to the lack of consensus among the different actors on the indicators used to measure effectiveness.

Question to Dr. Chandra Embuldeniya:

- ***In your opinion, what is the current role of the private sector in climate adaptation programmes especially focusing on Sri Lanka?***

Answer: Dr. Embuldeniya cited his personal experience with climate-related projects carried out in the private sector. Companies have understood climate risk and built it into their business model, which is reflected in their reporting. Several companies are now going into Environmental, Social and Governance (ESG) as well. They have developed their own systems to be resilient to climate change, and have invested in climate-resilient infrastructure, developed climate-smart products, engaged in public-private partnerships, reduced GHG emissions as well as incorporated climate risk into business decision-making. Now markets also demand certification that companies look into climate change adaptation initiatives systematically. For example, companies in the agriculture sector are developing drought-resistant crops and insurance companies are developing climate-smart products. But although the private sector is introducing initiatives to combat climate risk, SMEs are not doing enough because they are involved in their day-to-day operations.

Question to Mr. Janaka Hemathilaka Director:

- ***How can community development organizations better contribute to locally targeted interventions with respect to climate change?***

Answer: Mr Hemathilaka outlined his organization's experience when working on climate-related projects in the community. A major challenge encountered when implementing the projects was the lack of knowledge on the effects of climate change and adaptation strategies demonstrated by the farmers and government officers on the field. To circumvent this, a multi-stakeholder approach was followed and a mechanism was developed which successfully educated the communities and local officials, on climate change. This type of adaptation was necessary to build climate resilience. Climate-smart agriculture technologies, knowledge products and processes were also produced and work was also carried out with communities and individuals to scale up climate-smart options. In turn, best practices were learned from farmers. This process could be replicated and shared at diverse forums.

Second Round

Question to Ms Dakshini Perera:

- ***How do you see the potential of digital solutions like the Climate Smart Governance Dashboard in finding solutions to the issues you raised in round 1?***

Answer: Climate change is a cross-cutting issue so coordination among all agencies is essential for effective implementation. The Ministry cannot on its own implement adaption and mitigation actions as well as meet its international obligations. The Ministry currently has several digital systems, for example, the data sharing mechanism which covers most sectors and works mainly on the mitigation aspect. With the support of the national adaptation planning readiness project digital downscale modelling will also be established, in partnership with the Meteorological Department. Currently, however, there are several projects being carried out in the Ministry as well as by donors and the private sector but there is no system to track all of these projects so it is impossible to obtain a holistic picture of climate change adaptation implementation efforts. CiimBeR is a very good initiative that can provide a holistic picture for planning purposes and also identify gaps and the actions necessary to fill them.

Question to Dr Mallawatantri:

- ***How do you think we could increase the engagement of women and youth in adaptation programs in Sri Lanka?***

Answer: We talk of youth engagement but don't speak much about youth remuneration. There should be adequate remuneration for youth to engage in climate action programs. They should be given the process knowledge and the remuneration and be allowed to do what they do best and like doing, which is Artificial Intelligence. He cited instances in which the enthusiasm and intelligence of young participants in IT-related initiatives had enhanced the outcomes of these programmes. Youth migration could also be reduced if young talent is harnessed in this manner and brought into the process of management effectiveness tracking for engaging in AI initiatives and advocacy.

Question to Dr Harsha Kadupitiy:

- ***What strategies and solutions are there to overcome the lack of coordination among institutions?***

Answer: Some of the initiatives have been introduced already, overarching agriculture policies for instance. The land systems around the country should be identified separately and zone-wise planning should be carried out. Water resources in the Central Highlands differ from the water

systems in other parts of the country. Planning should be done at the river basin level and not at district level, watershed-based planning is needed. Some action plans are there but some of the policies and acts must be revised based on present realities. The present levels of technologies may be inadequate. These must be revisited and new research carried out to design new technologies.

Question to Eng. Janaki Meegasthenne:

- ***What are specific solutions you suggest to the issues you raised earlier, about the governance challenges you experienced in ongoing adaptation projects?***

Answer: Coordination challenges could be overcome by establishing a governance structure by bringing together key stakeholders and encouraging collaboration. Multistakeholder platforms or project steering committees could also be set up at national and regional levels. Diversifying public-private sector partnerships and engaging with international climate finance mechanisms may help address funding challenges. To address equity challenges, it is important to engage with affected communities and ensure their concerns are considered at the project planning, design and implementation stages. This could be accessed through community advisory groups. A clear and transparent decision-making process with the involvement of key stakeholders must be established. Capacity development at the planning and implementation stages is also essential for the successful implementation of adaptation projects. To address monitoring challenges, clear indicators must be identified at the outset, at project design and implementation stages. This could involve introducing remote sensing or GIS or utilising the monitoring and evaluation systems of the local community.

Question to Dr Embuldeniya:

- ***Can you let us know about the digital technologies used by Sri Lanka to address climate impacts?***

Answer: The government uses substantial digital solutions and is collecting, working with and managing climate data as well as using digital technologies for data storage. The DMC for instance uses remote sensing and data analysis to assess natural disasters, which is also helping the private sector. But there are inherent weaknesses in the public sector system. Digital solutions to address climate impacts will only be effective once the state sector stops working in silos. Several private sector companies use digital technologies in their daily operations and have also developed climate-smart products.

Question to Mr Janaka Hemathilaka:

- ***What are the ongoing activities of community development organizations in relation to climate adaptation and how do you see collaboration opportunities with the CGIAR system?***

Answer: Mr Hemathilake said that his organization was working on climate adaptation initiatives in 10 cascades and another 3 cascades would be during the following month. There are many opportunities for other organizations to collaborate in these initiatives. These generally center around climate-smart agriculture and the focus is on engaging women, youth are also being targeted to engage in farm and non-farm adaptation activities. Private sector companies are partnering these initiatives as well. A water governance mechanism has also been introduced to the cascades which enables an equitable sharing of water among the diverse users. Although the programmes are operational, more expertise and knowledge are needed to sustain them

Questions from the audience

- ***Question 1 - Despite the recognition of climate change as being a problem, there are still petty governance and political issues. What is the political will to drive climate change adaptation?***

Answered by Dr Mallawathanthri. The strategy could be to convince everyone that they would be at the losing end if they don't take advantage of the climate-change-related benefits. The people, officials and politicians must realise that climate change is real and that the incremental losses it causes are beyond normal disasters. Therefore, it is to their own advantage to be equipped with climate-resilient strategies. But there is no one size fits all solution. It is a complex situation. The Ministry of Environment is taking a lead here and has come up with the 2050 Net Zero implementation plan which will soon be ready. Sri Lanka must get the multiple agencies and the multiple stakeholders to think in the same language.

- ***Question 2. Is there any mechanism to facilitate a round table discussion between policymakers and researchers?. If researchers are given the opportunity to come up with new findings, policymakers can adopt them if they wish.***

Answered by Dr. Mallawathanthri. Sri Lanka has several projects in hand, there are many opportunities for knowledge sharing and many experts are willing to share. This is a recognized issue and we need to work on it. All agencies have recognized the potential because this is where the transformation can come from.

Response by Ms G. T. D Perera. The Ministry is trying to have a mechanism to establish a platform for researchers to coordinate with policymakers. This will enable them to identify the priority

research needs in the country and it also has the advantage of having a funding resource. We need to have a platform that connects researchers with the industry.

Comment by Dr. Chandra Embuldeniya. Climate change is ever- increasing, so projects should be planned by putting in the money as seed capital that will generate more capital for climate change adaptation.

HOW DO YOU SEE YOUR ORGANIZATION’S ROLE IN PARTICIPATING IN THE ACTIVITIES OF THE CGIAR INITIATIVE ON CLIMATE RESILIENCE?

World Bank – *Dr. Athula Senaratne, Senior Agriculture Specialist.*

World Bank has taken climate change as a global challenge and has multiple climate-related interventions on various aspects of climate change. WB is working with farmers in hot spot areas and has successfully introduced a pioneering climate-smart agriculture training facility for farmers with the support of the Department of Agriculture and other local agencies. The training is based on a model whereby the lead farmers go on field and help other farmers.

Governance issues are also addressed. Climate-smart agriculture initiatives are mainly focused on cascade systems. Governance at village level is largely based on individual tanks. WB proposed a tank cascade management system based on a multi-stakeholder approach that has incorporated the infrastructure as well as ecological aspects of the system into cascade management. WB supports the CGIAR initiative as climate change will continue to be a reality into the future.

World Vision – *Mr. Wilson Gnanadeepan.*

World Vision is presently piloting a project, ‘Anticipatory action for disaster mitigation in Sri Lanka’ which is also implemented in five other countries. The project aims to develop a national framework for early action. A participatory approach was developed with community engagement and the project is now developing early action protocols with the community. Plans are to link this community to finance and other benefits.

Discussions are also being held with several agencies to build synergies with network partners. World Visions can collaborate on the AWARE platform to provide ground-level support for ClimBeR.

Rajarata University – *Prof. Abeysinghe.*

The university is working with students on a project located in Malwathu Oya to locate climate hot spots and vulnerable areas. The university has published a paper that analyzes climate change in Sri Lanka, particularly rainfall patterns, as well as a paper on the changes in wet events in Sri

Lanka. The university has used climate change as an opportunity and carried out research on the extension of the intermediate zone toward the dry zone, which provides the opportunity to extend the growing of sugarcane to the dry zone as well. The university can contribute to ClimBeR by mapping hot spots.

Dept. of Agrarian Development

DAD is working with several partners on climate adaptation projects and is also part of the *Geo Goviya* platform which has farmer and farming details that are updated seasonally, and which also includes a data-sharing platform that provides climate and market information to farmers. The Department also manages minor irrigation projects and coordinates with partner agencies for this purpose. The Department is able to collaborate with ClimBeR as well.

Japan International Cooperation Agency Sri Lanka

JICA Sri Lanka is actively involved in several areas of disaster mitigation in Sri Lanka. JICA is implementing two projects on DRR for floods in the Kandy river basin, one is to develop a master plan for flood risk reduction and the other is to mainstream flood risk reduction in a pilot site in the basin, in collaboration with the World Bank. Landslide disaster mitigation is another JICA project conducted in mountainous areas in the Kandy and Badulla districts, JICA has developed a hazard map of landslides in those areas. JICA is also partnering with the Dept. of Meteorology on a weather radar project to build capacities in meteorological observation.

Global Green Growth Institute Sri Lanka

Over the past year, the Institute has been helping the Climate Secretariat to implement the NAP Readiness Support Project in Sri Lanka and to come up with a revised NAP plan that ensures horizontal and vertical integration. Provincial adaptation plans are being developed for all nine provinces, and the setting up of two committees are being proposed that will enable decision-making on climate actions at the provincial level. Both these committees should consider entering their Project related climate details into ClimBeR, thereby enabling the provinces to contribute data to ClimBeR.

Disaster Management Center

DMC suggested that the ClimBeR tools should be shared on a platform to enable reliable early warning of a disaster.

NEXT STEPS

- Launch of the ClimBeR provincial workshop in Anuradhapura on 11th April 2023
- Institutionalizing the MPG tool guide;

- Co-designing and co-implementing the Climate- Smart Governance Dashboard;
- Conducting a needs assessment in collaboration with the DMC with stakeholders on the AWARE platform;
- Identifying adaptation interventions to launch locally- led climate adaptation programs to empower communities;
- Preparing work plans for capacity building;
- Fostering south-south learning from the shared experiences of ClimBeR countries.

CLOSING REMARKS

Dr Ana Maria Loboguerrero said this time together has been important in terms of defining the key activities that are to be focused upon. Many inputs were received and the activities to which we could contribute, see results and ensure that the transformational process is taking place, must be prioritised. She emphasised the importance of sustainability of the interventions, which is possible only if the initiatives are owned by the local people and national organizations in Sri Lanka. This agenda must also address current needs and should not stop once the project is completed.

Some of the processes discussed today are key challenges and gaps, namely the lack of coordination, fragmentation, and working in silos. A combination of various expertise, the willingness to make it happen as well as resources are necessary to circumvent these challenges. Sri Lanka must ensure that these actions are translated into impacts that are sustainable over time.

Dr Giriraj Amarnath declared that only long-term projects could be sustainable, and illustrated his remark with his experience of the exponential growth of the *Geo Goviya* platform launched during the pandemic. Government support is also vital for sustaining a project, and staying with a project until its impacts are experienced is vital. Dr Giriraj appreciated the fact that the launch of the ClimBeR initiative in Sri Lanka has many local champions, starting with the officials of the Climate Secretariat, and that several of these champions were present at this workshop. ClimBeR can be used as a template to bring more investments and priorities to Sri Lanka. Investments will flow in if the ideas are good, and co-designing is the basis for good ideas. The presence of the participants at this workshop confirms their commitment and the importance of climate change today.

Ministry of Environment and the Climate Change Secretariat. The sustainability of the program will not be in doubt because it has strong government support and public sector due to the fact that the tool is modern, timely and paints a holistic picture of what must be done. IWMI is to be commended for introducing this tool to Sri Lanka. ClimBeR is able to attract investors by clearly indicating the gaps and actions that should be taken and how the multi-stakeholders should be

involved in the process. Research and a scientific base are vital for decision-making. A science-based approach is factual and can be brought forward and justified, so political or other pressures are not necessary for validation.

SUMMARY

The workshop signifies the first step in advancing ClimBeR's mission in Sri Lanka, to collaborate closely with local partners in addressing vulnerabilities related to climate change. By successfully gathering stakeholders from diverse disciplines in Sri Lanka, it provided a platform for sharing perspectives, ideas, and experiences, which will enable crucial decision-making regarding climate change adaptation initiatives in the country. This reinforces ClimBeR's commitment to empower national stakeholders to resolve their own climate change challenge and will, ultimately, enhance the resilience of smallholder farmers and enable them to withstand the severe impacts of climate change more effectively.

PROVINCIAL CONSULTATION WORKSHOP SUMMARY

This ClimBeR regional workshop was organized in conjunction with the launch of the ClimBeR project in Sri Lanka and the ClimBeR Sri Lanka project was planned to be jointly implemented by the Department of National Planning (under the Ministry of Finance, Economic Stabilization and National Policy), Climate Change Secretariat and MAFF. The regional workshop brought together stakeholders from the agriculture, Irrigation, water resource and environment sectors as well as public and private sector organizations.

What is ClimBeR?

The ClimBeR aims to transform the climate adaptation capacity of food, land, and water systems, ultimately increasing the resilience of smallholder production systems to withstand severe climate change effects like drought, flooding, and high temperatures. The WP4 deals with multi-scale governance for transformative climate adaptation. The project builds on the existing adaptation interventions, and with close collaboration with the stakeholders identifies the governance pathways for enabling enhanced coordination for co-designing, co-developing, and co-implementing of adaptation interventions and coherent policies. Such governance processes will ensure bottom-up approaches that reflect community needs and priorities. The ClimBeR project also draws from best practices and lessons learned across countries and contexts.

Objectives of the regional workshop

The main objective of this workshop was to introduce the activities of ClimBeR and to discuss how shock-responsive MPG tools are and how innovative digital solutions can strengthen long-term adaptation efforts to enhance climate resilience in Sri Lanka focusing on Mi-oya, Malwathu Oya, and Yan Oya basins in the Northwestern, North-Central and Northern regions of the country.

Specific objectives:

- Introduce transformative adaptation approaches developed by ClimBeR, along with key activities, expected outputs and innovations, and timelines of the initiative.
- Align ClimBeR outputs and decision support tools (AWARE Platform, CSG Dashboard) to national and regional strategic climate adaptation policies and implementation processes.
- Discuss mechanisms that can be used to get the knowledge from the local stakeholders to strengthen the AWARE platform and SCG dashboard.
- To build the relationship with local government officials, communities, and smallholder farmers to promote a locally led climate adaptation program.
- To understand stockholder requirement in relation to the activities of ClimBeR project activities.

Proceedings

Welcome address by Dr. Niranga Alahacoon and Ms. H.U.K. Dilanjalai: All the participants for the workshop were welcomed by on behalf of IWMI and by) on behalf of Rajarata University of Sri Lanka.

Opening remarks by Dr Giriraj Amarnath: In his opening remarks, Dr. Giriraj Amarnath explained about CGIAR, IWMI and the ClimBeR project as well as the objectives of organizing this regional workshop.

Introduction to ClimBeR by Dr Ana Maria Loboguerrero: Dr. Loboguerrero provided an overview of the relevance of ClimBeR in today's context of extreme weather events. She indicated that main principle of the initiative is to work through partnerships to ensure that this initiative is demand-driven. Dr. Ana Maria also outline that ClimBeR initiatives will looking in to the shift from incremental changes to transformational change and build resilience through interdisciplinary and transdisciplinary approaches that bring the knowledge of practitioners, policymakers and researchers across scales and sectors to work together to build resilience.

Overview of ClimBeR Governance for Resilience by Dr Giriraj Amarnath and Dr. Upali Amarasinghe: Detailed presentation on ClimBeR Governance for Resilience (G4R) activities, innovations, outputs were presented to the participants.

Remarks by Ms. K.M. S. D Jayasekara, Secretary – Department of Irrigation North Central Province: The ClimBeR project is felt to be a timely and very important project, and it seems that the project provides a good foundation for developing the necessary methods/tools to manage

future climate impacts due to climate change. However, she said that since this is the beginning of the project, this is not the right time to give much enthusiasm and that all necessary interventions will be provided for the successful completion of the project.

Remarks by Mr. W.G.W. Wanasinghe (Secretary – Department of Agriculture North Central Province): As Ms. Jayasekara said, it is clear that the ClimBeR project is an important project for high level decision makers. He also said that we will provide the necessary support for the successful completion of the project as the North Central provincial Council. He further mentions that he was most happy with the selection of the northern and north-central provinces for the implementation of the project.

Remarks for Rajarata University: – Prof. N. S. Abeysinghe (Head – Department of Agricultural Engineering and Soil Science) has said that in implementing such projects, it is a more meaningful approach to connect the existing universities in the relevant area. Furthermore, Prof. Prof. M.H.J.P. Gunarathna (Professor in Agricultural Engineering Department of Agriculture) indicated that there is a high possibility of providing the participation of university students in the data collection and other activities required for the project and that they also get good exposure in their education journey. Their main message was that they would continue to provide the necessary intervention to make the project a success.

ANNEXURES

ANNEX-1 : PHOTOS

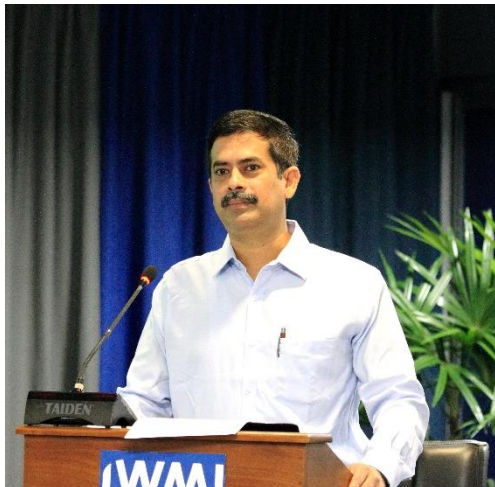
Photos from the ClimBeR Sri Lanka Launch, National Workshop



Opening remarks by Dr. Mark Smith
(Director General IWMI)



Introduction to CGIAR Climate Resilience
Initiative by Dr. Ana maria Loboguerrero
(CIAT - ClimBeR Initiative Lead)



Presenting the Overview of Governance for
Resilience by Dr. Giriraj Amarnath (IWMI –
ClimBeR WP4 Lead)



Special remarks by Mr. Leel Randeni
(Director – Climate Change Secretariat,
Ministry of Environment)



Special remarks by Ms. Takana Sachi
(Second Secretary, Embassy of Japan in Sri Lanka)



Panel Discussion moderated by Prof.
Buddhi Marambe



Panelist (Left to Right): Mr. Janaka Hemathilaka (Director – Janathakshan), Eng. Janaki Meegasthenne (Former Director - Irrigation Department), Dr. Ananda Mallawatantri, (Advisor to President - Government of Sri Lanka), Dr. Chandra Embuldeniya (Chairman -Technology Development and Innovations Arm of the National Science Foundation), Ms. Dakshini Perera (Asst. Director - Climate Change Secretariat), Dr. H.K. Kadurupitiya (Director- Natural Resources Management Centre)



Participants of the ClimBeR inception workshop in Colombo, Sri Lanka on 10 April 2023

Photos from Provincial level consultation workshop and field visit in Anuradhapura



Discussion with the Irrigation Engineer at the Huruluwewa scheme regarding the ClimBeR provincial workshop and future activities.



Participants of the ClimBeR provincial workshop held in Auradhapura, Sri Lanka on 11 April 2023



Discussion with few farmers in Anuradhapura on ClimBeR activities to address their marketing challenges.



Discussing the usefulness and challenges of the cascade system in agriculture.



Participants of the MPG discussion in Polpithigama



Field inspection of the canal restoration in Polpithigama



Participants of the MPG discussion in Polpithigama

All photos provided by IWMI

ANNEX-2 : AGENDA

Time	Program	Lead
09:00 – 09:30	Registration	Ms. Manahari Singarachchi, Project Coordinator, International Water Management Institute (IWMI)
09:30 – 10:45	Inauguration <ul style="list-style-type: none"> - Welcome and setting the scene by Research Group Leader – Water Risk to Development and Resilience, IWMI, and Governance for Resilience (G4R) Lead, CGIAR Initiative on Climate Resilience (ClimBeR) - Introduction to ClimBeR by Leader, ClimBeR, and Research Director for Climate Action, Alliance of Bioversity International and International Center for Tropical Agriculture (CIAT) - Opening remarks by Director General, IWMI, and Senior Director, Water Systems, CGIAR - Special remarks <ul style="list-style-type: none"> - Director General, Department of National Planning - Embassy of Japan in Sri Lanka by Second Secretary - Chief guest – Secretary, Ministry of Environment <p>Overview of ClimBeR Governance for Resilience (G4R) with activities in Sri Lanka (15 minutes)</p>	<ul style="list-style-type: none"> - Dr. Giriraj Amarnath - Dr. Ana Maria Loboguerrero - Dr. Mark Smith - Mr. R. H. W. A. Kumarasiri - Ms. Tanaka Sachi - Dr. Anil Jayasinghe - Dr. Giriraj Amarnath and Dr. Upali Amarasinghe, Senior Researcher, IWMI
10:45 – 11:15	<i>Group photo + Tea/coffee</i>	
11:15 – 12:30	Panel discussion - Governance challenges in climate adaptation for enhancing resilience <ol style="list-style-type: none"> 1. Ms. G.T.D. Perera, Asst. Director, Climate Change Secretariat 	Moderated by Prof. Buddhi Marambe, University of Peradeniya

Time	Program	Lead
	<ol style="list-style-type: none"> 2. Dr H.K. Kadurupitiya, Director, Natural Resources Management Centre 3. Eng. Mrs. Janaki Meegasthenne, Former Director, Irrigation Department 4. Dr. Ananda Mallawatantri, Advisor to President, Government of Sri Lanka 5. Dr. Chandra Embuldeniya, Chairman, Technology Development and Innovations Arm of the National Science Foundation 6. Mr. Janaka Hemathilaka, Director, Janathakshan Gte Ltd. 	
12:30 – 13:00	<p>How do you see your organization's role in participating in the activities of the CGIAR Initiative on Climate Resilience?</p> <ul style="list-style-type: none"> - Governance for climate adaptation - Digital innovations - Locally led climate adaptation - Climate finance 	Climate Change Secretariat under the Ministry of Environment, and IWMI
13:00 – 13:15	Closing remarks	Climate Change Secretariat under the Ministry of Environment, and IWMI
13:15 – 14:00	<i>Lunch</i>	

ANNEX-3 LIST OF PARTICIPANTS

National Workshop

No	Name	Affiliation
1	G.G.V Shamalee	Director, Ministry of Agriculture
2	Lakruwani	Assistant Comissioner, Department of Agrarian development
3	N. M. M. Marikkar	Additional Secretary, Ministry of Water Supply
4	Anusha Warnasuriya	Director General. Department of Meteorology
5	Leel Randeni	Director Climate Change, Climate Change Secretariat
6	Hasula Wickramasinghe	Program Assistant, Climate Change Secretariat
7	Dhakshini Perera	Assistant Director, Climate Change Secretariat
8	Sukitha Ranasinghe	Assistant Director, Central Environment Authority
9	Hiran Thilkarathne	Assistant Director, Ministry of Disaster Management
10	Buddhi Marambe	Professor, University of Peradeniya
11	N.S. Abeysinghe	Professor, University of Rajarata
12	Takafumi Sakurazawa	Japan International Cooperation Agency Sri Lanka
13	Sumudu Silva	Green Growth Institute
14	Ananda Mallawatantri	Advisor to the President on Environment & Climate Change
15	Janaki Meegastenne	Former Director General, Ministry of irrigation
16	Chandra Embuldeniya	Chairman, Technology Development and Innovations Arm - National Science Foundation
17	Janaka Hemathilaka	Executive Director, Janathakshan
18	Seuwandi Yapa	Project Manager, European Union Sri Lanka
19	Winson Gnanatheepan	Disaster Risk Reduction Specialist, World Vision Lanka
20	Priyanka Dissanayaka	Disaster Risk Management Specialist, World Bank
21	Athula Senaratne	World Bank
22	Amal Ranaweera	Director - Planning, Ministry of Evnironment
23	Thilani Munaweera	Senior Research Officer, Hector Kobbakkaduwa Agrarian Research and Training Institute
24	Upali Imbulana	Consultant, UNDP Sri Lanka
25	Manjula Ranagalage	Professor, University of Rajarata
26	Bandula Sirimal	Deputy Director - CRIP - CResMPA, Ministry of Irrigation
27	Tanaka Sachi	Japan Embassy of Sri Lanka
28	Lal Induruwage	Global Water Partnership
29	H.K. Kadupitiya	Director, Department of Agriculture
30	Vickneshan	World Food Programme
31	Mark Smith	Director General, IWMI

32	Ana Maria Loboguerrero Rodriguez	Director, Alliance of Bioversity International and CIAT
33	Giriraj Amarnath	Research Group Leader - Water Risk to Development and Resilience, IWMI
34	Upali Amarasinghe	Senior Researcher, IWMI
35	Niranga Alahacoon	Researcher, Remote sensing and Disaster Risks, IWM
36	Suarjit Ghosh	Regional Researcher, Water Risk and Data Sciences Specialist, IWMI
37	Emmanuel Attoh	Researcher, Climate Adaptation Specialist, IWMI
38	Mahesh Jampani	Regional Researcher, Water Risks Climate Change, IWMI
39	Sachini Ukwattage	Consultant, IWMI
40	Kaushika Seelanatha	Consultant, IWMI
41	Uvindu Sellahewa	Intern, IWMI
42	Kaveesha Illeperuma	Intern, IWMI
43	R.W.M.P.P Rajakaruna	Intern, IWMI
44	A. Athukorala	Intern, IWMI
45	Tarin Wijeyasinghe	IWMI
46	Niroshi Wijeyasinghe	IWMI

Provincial Workshop

No	Name	Affiliation
1	K.M. S. D Jayasekara	Secretary – Department of Irrigation North Central Province
2	W.G.W. Wanasinghe	Secretary – Department of Agriculture North Central Province
3	C. Ekanayaka	District Deputy, Department of Agrarian development (DAD), NCP
4	H.M.A. Wijewardhana	Chief Engineer (Huruluwewa Irrigation System)
5	H.M.D.C. Thilakarathne	Engineer (Huruluwewa Irrigation System)
6	Mr. Namal Hettiarachchi	DRPM Engineerer , Thambuthegama – CRIP project
7	W.B. Dilan Sanjaya	Project Engineer, Thambuthegama – CRIP project
8	Asoka Perera	Project Director, NWP – NWPCP project
9	D. H. Shantha Dharmasiri	District Coordinator, Puttalam – CRIWMP project
10	N.S. Abeysinghe	Head – Department of Agricultural Engineering and Soil Science, Rajarata university of Sri Lanka
11	M.H.J.P. Gunarathna	Professor in Agricultural Engineering – Rajarata university of Sri Lanka
12	Upali Imbulana	UNDP – Consultant
13	H.M.N. Priyadharsi	District Director, Animal Breeding
14	R.G.C. Rajapakshe	District director, Animal Herb

15	H.U.K. Dilanjalai	Lecturer, Department of Environmental Management, Rajarata University
16	Alwm Perera	Lecturer, Department of Environmental Management, Rajarata University
17	S.S. Thilakasiri	Management assistant, Department of Environmental Management, Rajarata University
18	Ana Maria Loboguerrero Rodriguez	Director, Alliance of Bioversity International and CIAT
19	Giriraj Amarnath	Research Group Leader - Water Risk to Development and Resilience (IWMI)
20	Upali Amarasinghe	Senior Researcher (IWMI)
21	Niranga Alahacoon	Researcher, Remote sensing, and Disaster Risks (IWMI)