



# Introduction and Objectives of the First International Climate Change Forum (ICCF)

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Temple Trees  
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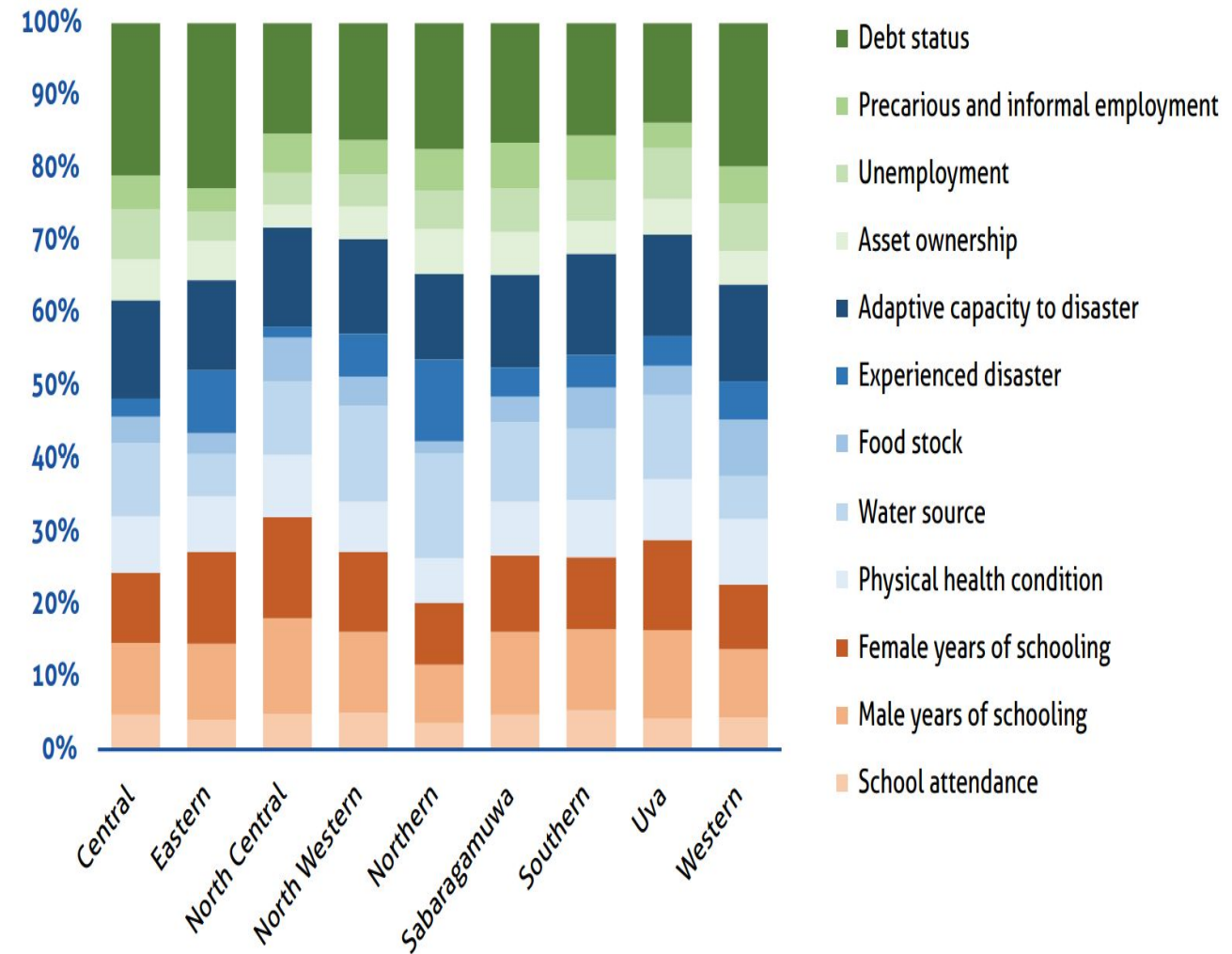


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## Selected Key results of the Sri Lanka Multidimensional Vulnerability Index (MVI) – 2022/2023

- Among the 12.34 million individuals facing vulnerability, 10.13 million are rural residents.
- Factors contributing to rural MVI include indebtedness (17.8 percent), **resilience to disasters (13.1 percent)**, and **access to water sources (10.7 percent)**.
- Adaptive capacity to disaster is the second largest contributor to the MVI. **48.8 percent of population lacks disaster preparedness**, a key vulnerability factor aggravated by **accelerating climate risks**.



Source: UNDP Sri Lanka 2023

[undp\\_multidimensional\\_vulnerability\\_report.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2023-08/undp_multidimensional_vulnerability_report.pdf) or  
[https://www.undp.org/sites/g/files/zskgke326/files/2023-08/undp\\_multidimensional\\_vulnerability\\_report.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2023-08/undp_multidimensional_vulnerability_report.pdf)

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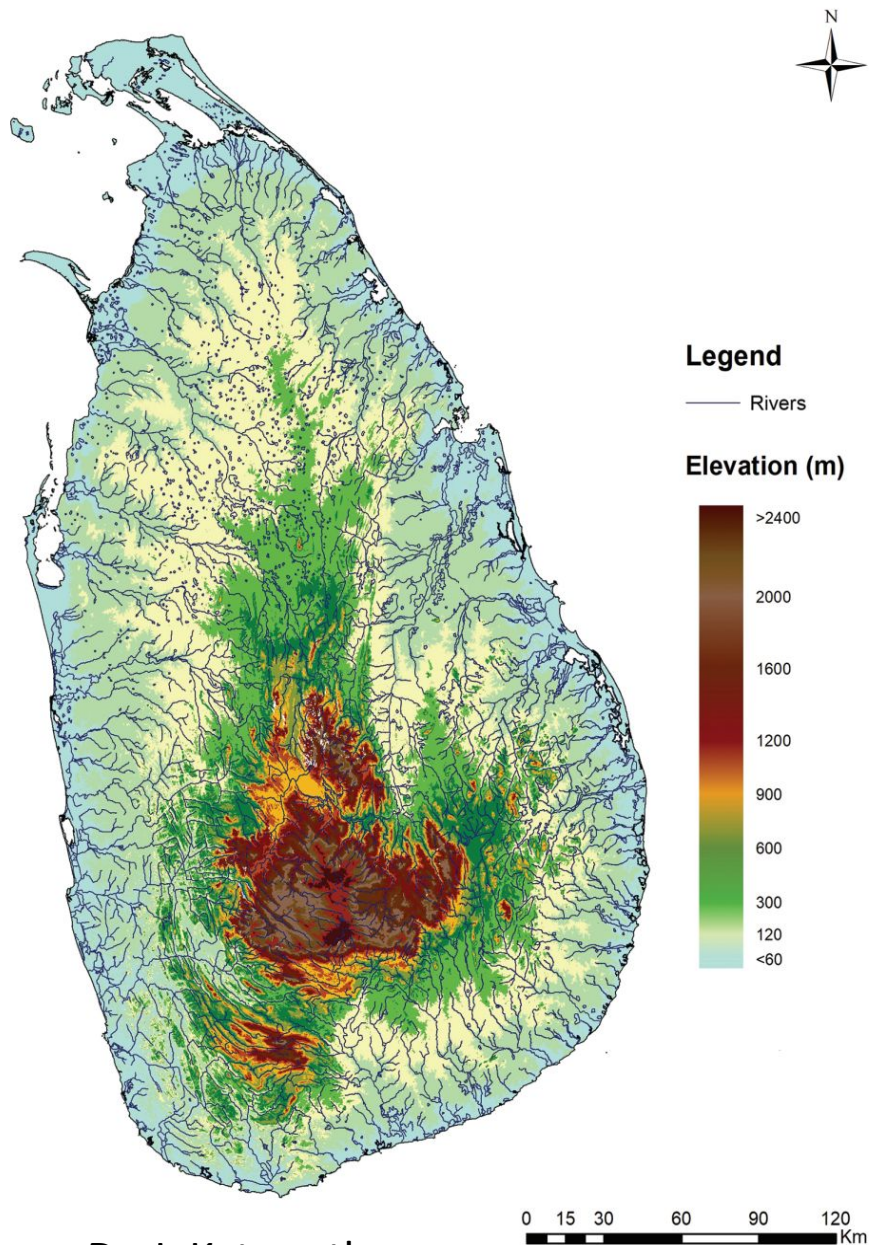
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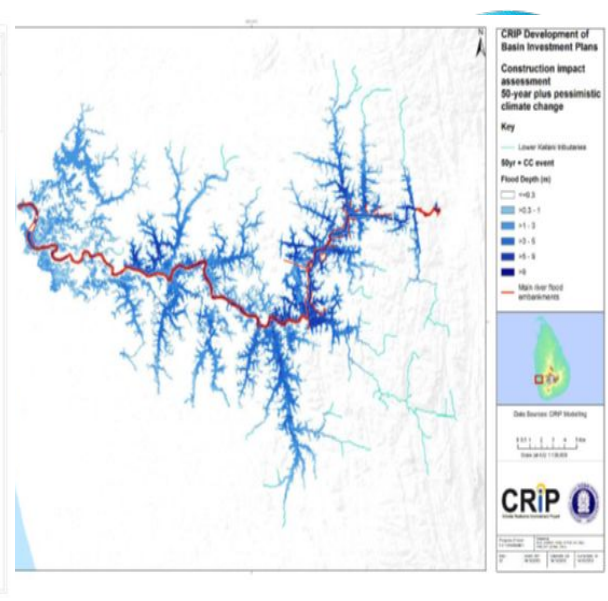
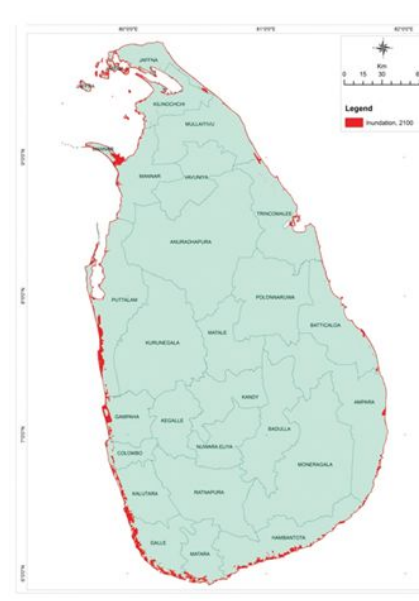
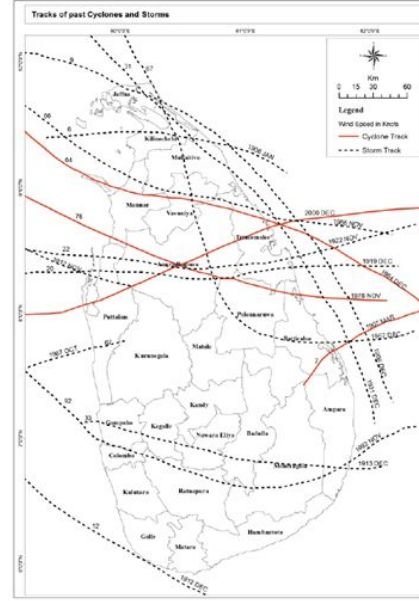
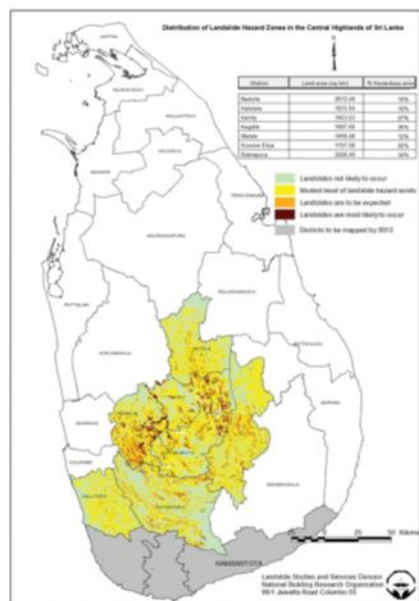
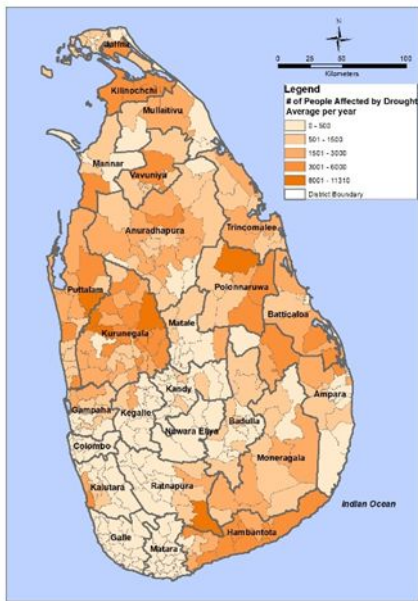
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- Bring to the forefront the initiatives undertaken by a diverse array of organizations operating in the climate change space.
- Underscore the necessity for national level convergence towards adopting new knowledge and techniques to promote carbon markets, climate-smart agriculture, vulnerable community engagement, climate-friendly technology, and inclusive climate finance.
- Establish a baseline data set and a digital management effectiveness tracking system for current and future climate adaptation initiatives that can be adopted at the national level.
- Identify and select 2-3 implementable projects, aimed at addressing climate adaptation for agriculture in line with “Climate Prosperity” agenda.
- Develop a comprehensive capacity-building program for climate adaptation focusing on food security that can be promoted through the proposed International Climate University with local and international inputs.



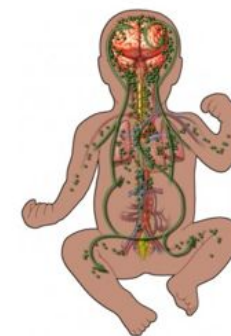
- Island nation
- Ridge to reef flow – 103 River Basins
- Biodiversity rich green and blue systems
- Watershed above 300 meters MSL are critical watersheds
- About 64% water lost due to evaporation, infiltration, seepage etc. and unavailable for immediate use
- Balance 36% : Irrigation 28%, Urban and Industrial 7% and discharge to ocean 65%, approximately.



# Sri Lanka Disaster Profile (selected) – Mostly Water Related

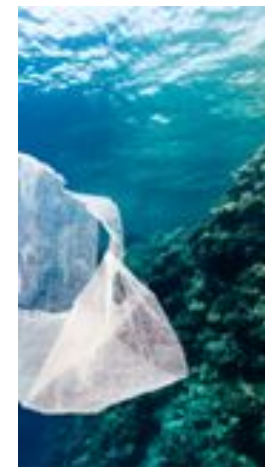
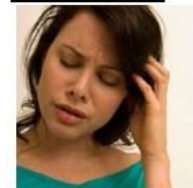
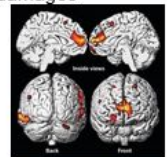
## Mercury

Diseases in Nervous system, Brain damages, Infertility, Hearing and Memory losses



## Lead

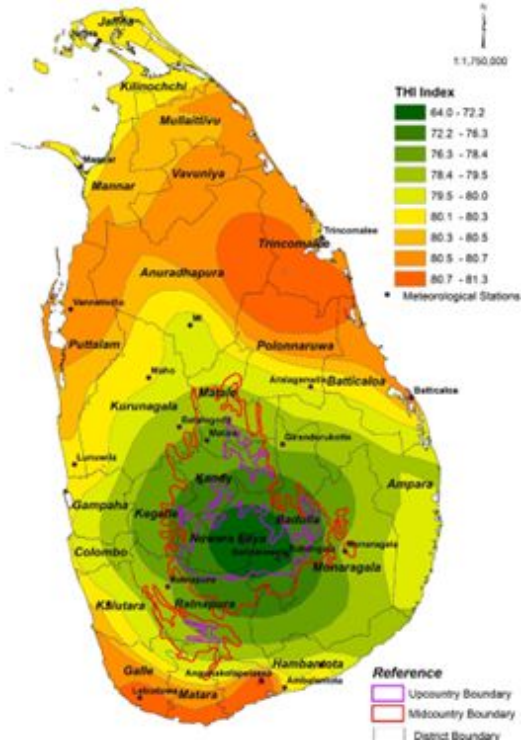
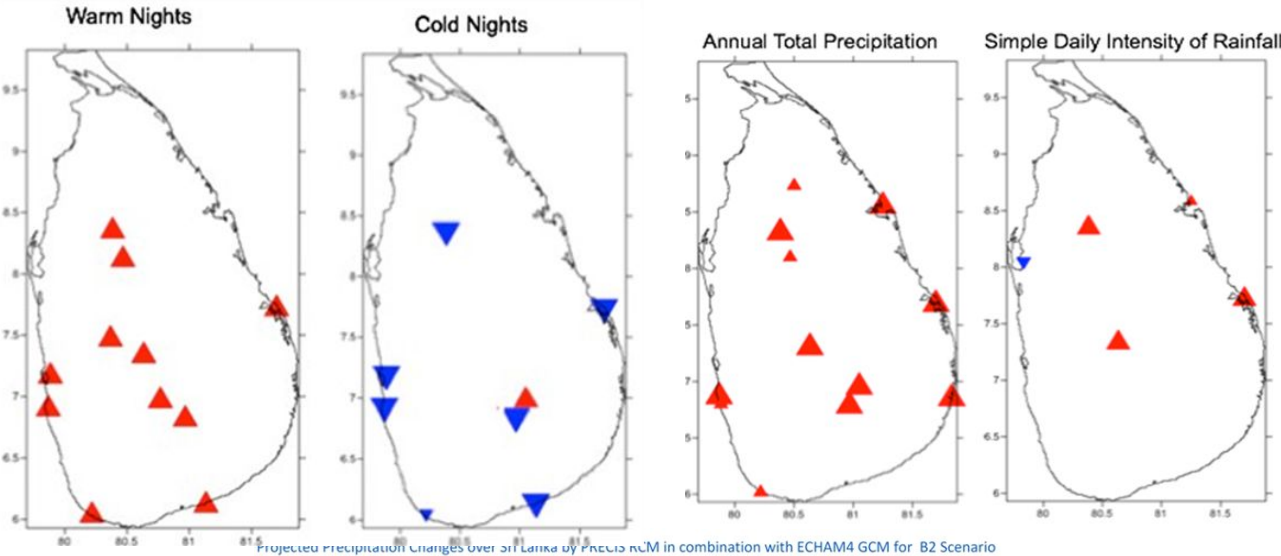
Headache, fatigue, Blood Pressure, Malfunction of kidneys, Infertility and Brain damages



Emerging disasters – Human Animal Conflict, Microplastics, Growth Hormones, Industrial Pollution, etc.

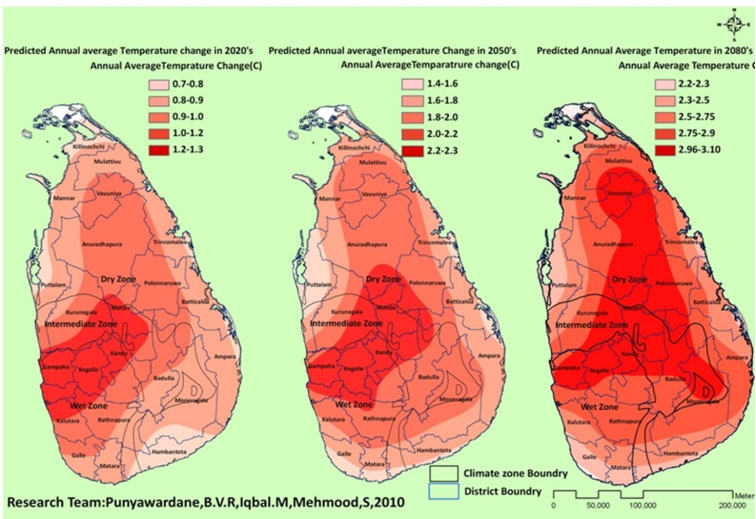
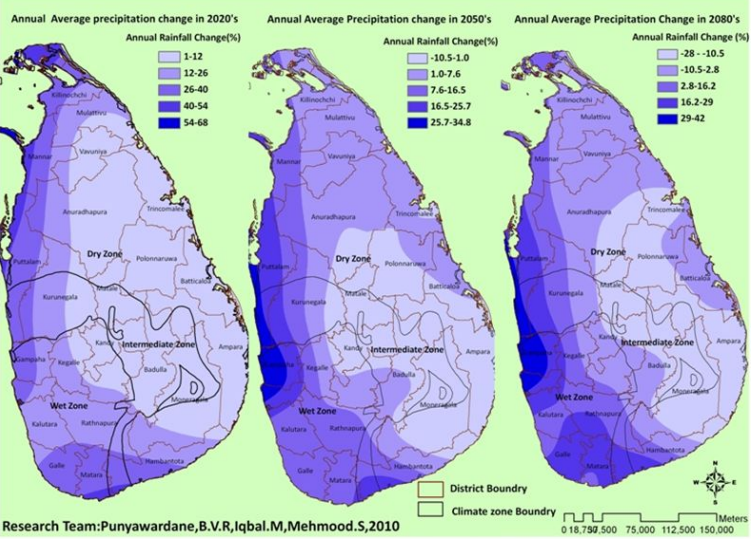
# Present and Future Climate

Source: Shiromani Jayawardena et. al. 2018. Recent Trends in Climate Extreme Indices over Sri Lanka, American Journal of Climate Change 7: 586-599

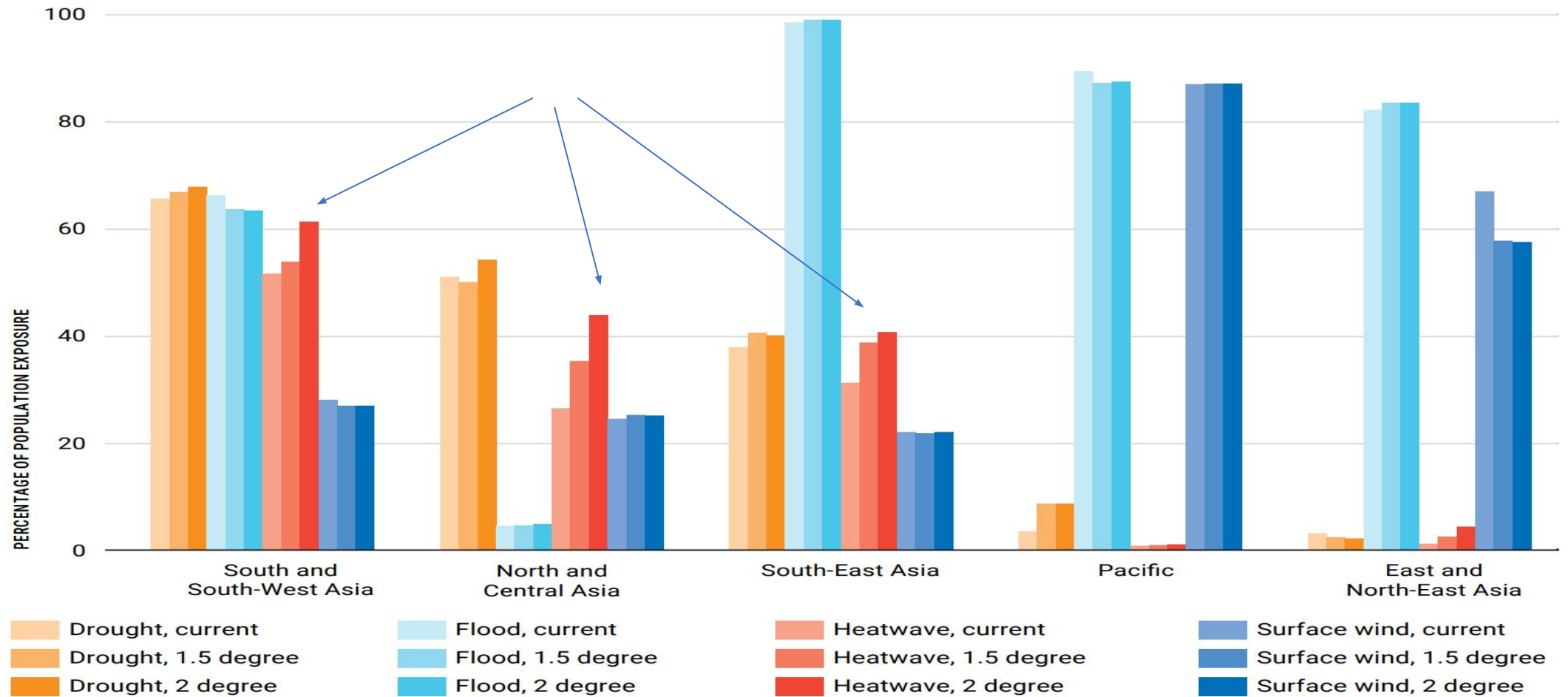


Source: Dr. B.V.R. Punyawardena

Predicted Temperature change over Sri Lanka by PRECIS RCM in combination with ECHAM4 GCM for B2 Scenario

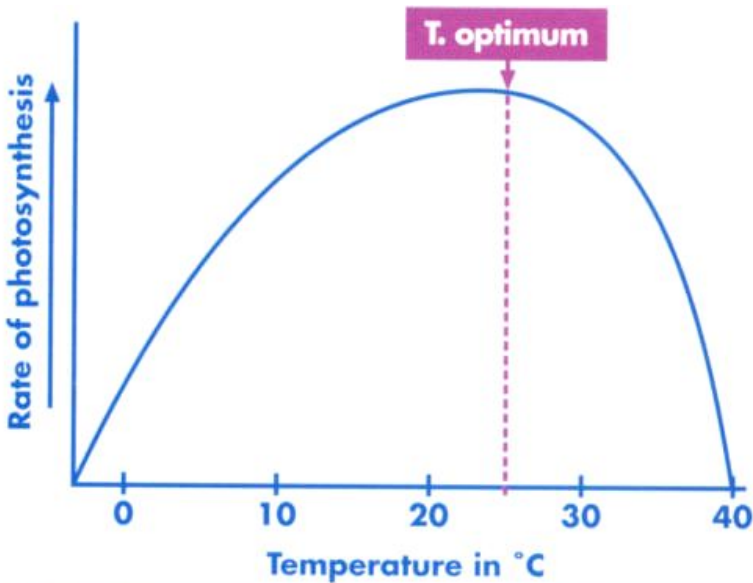
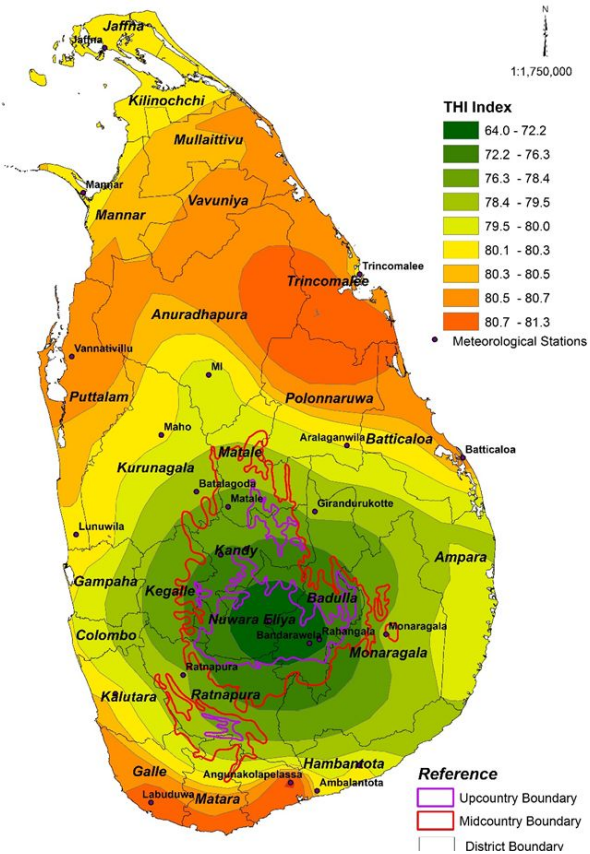


Least known Impacts could be due to increasing temperatures and it is where the predicted changes are highest in Asia (1.5 and 2.0 degree scenarios)

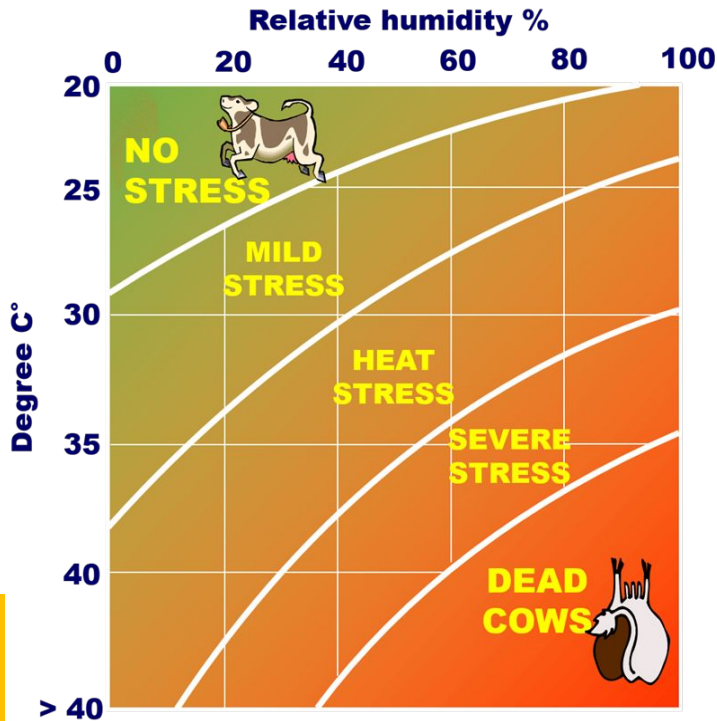


Source: ESCAP.

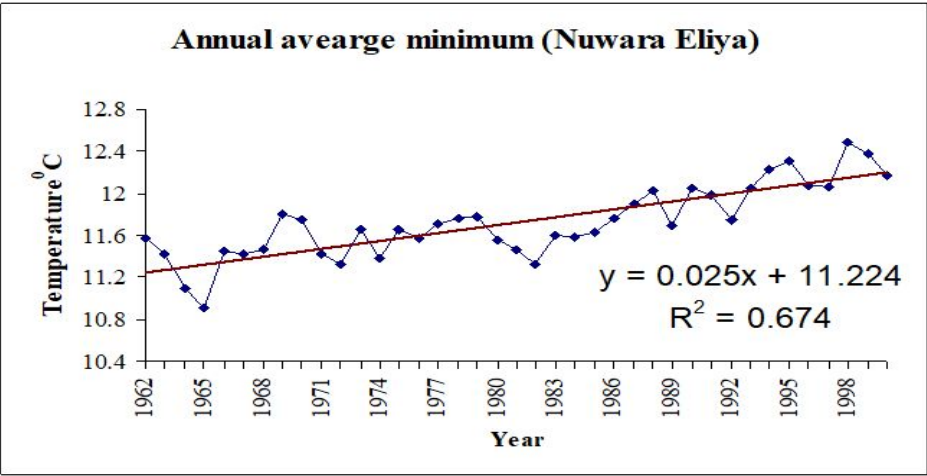
# Scientific complexity: Temperature impacts



C3 plants = optimum Temperature 18 – 24°C  
 C4 plants = optimum Temperature 30 – 45°C



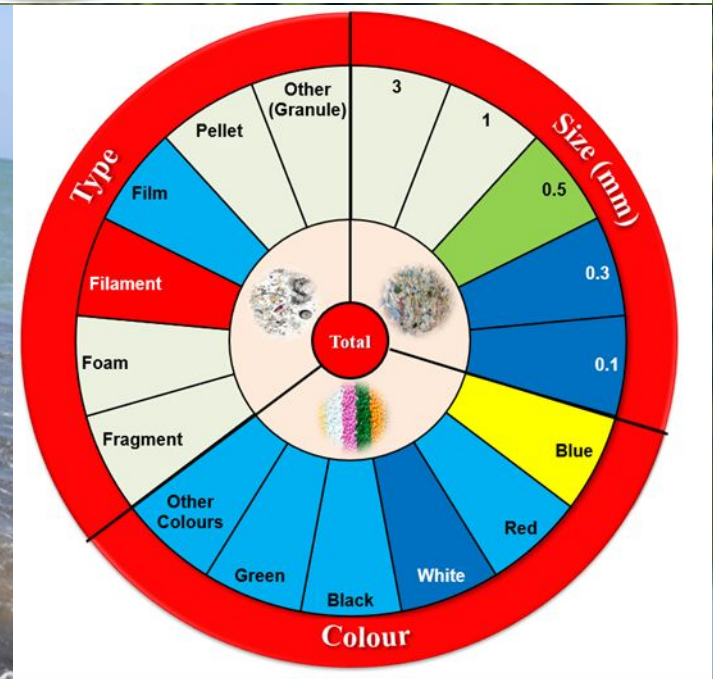
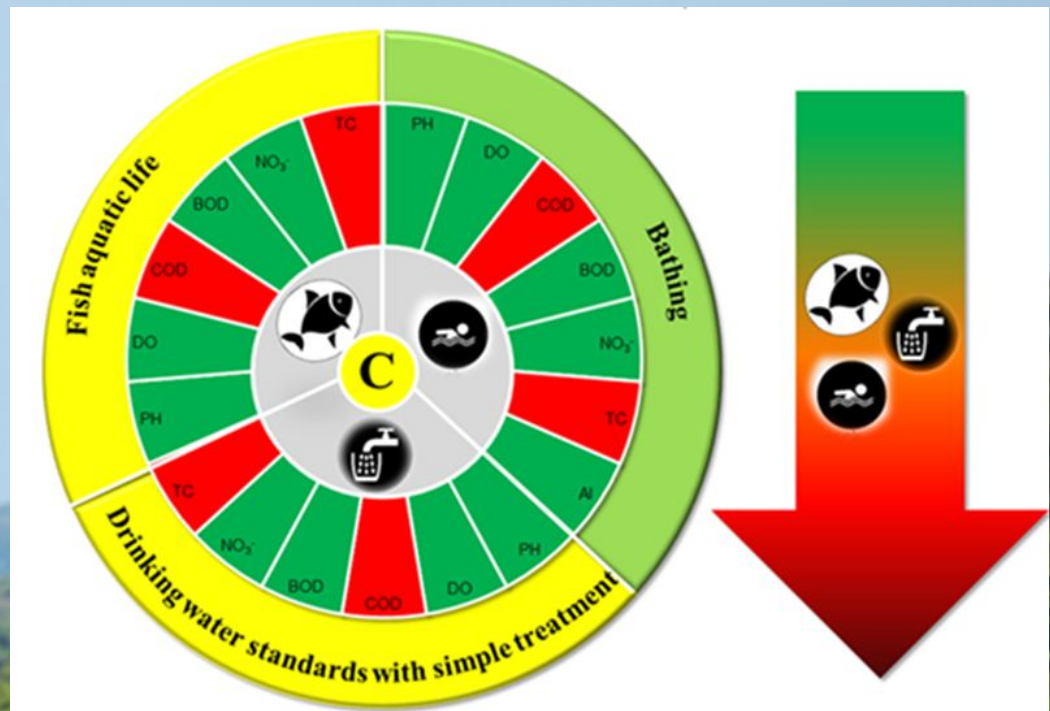
Source: Dr. B.V.R. Punyawardena



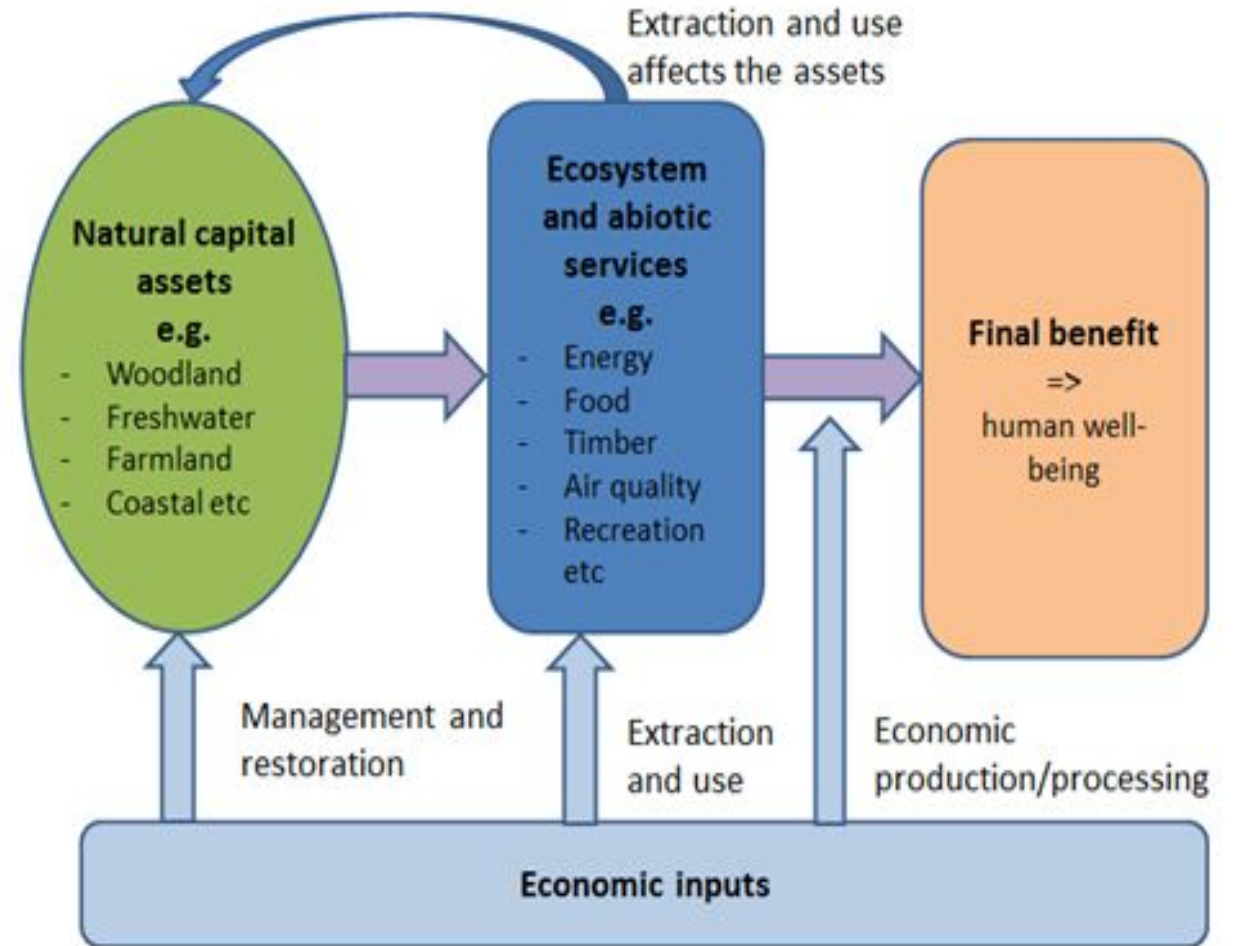


# Impacts of the potential pollution of Ecosystems towards aggravating climate change impacts (Agriculture, Industry, Urban and Other Pathways) – Engaging Stakeholders

Associated Pollutant	Source
E Coli	Septic systems, Sewage plants
COD	Industrial discharge, Urban runoff
Turbidity	Agriculture, Urban runoff, Forest disturbances, Constructions
BOD	Agriculture, Sewage treatment
Heavy Metals	Industry, discarded batteries, electronics etc.
$\text{NO}_3^-$	Agriculture, Grazing land, Septic systems, Sewage treatment plants, Urban runoff
$\text{PO}_4^{3-}$	Agriculture, Grazing land, Septic systems, Sewage treatment plants, Urban runoff
Microplastic	Discarded plastic waste, Septic systems, Urban runoff

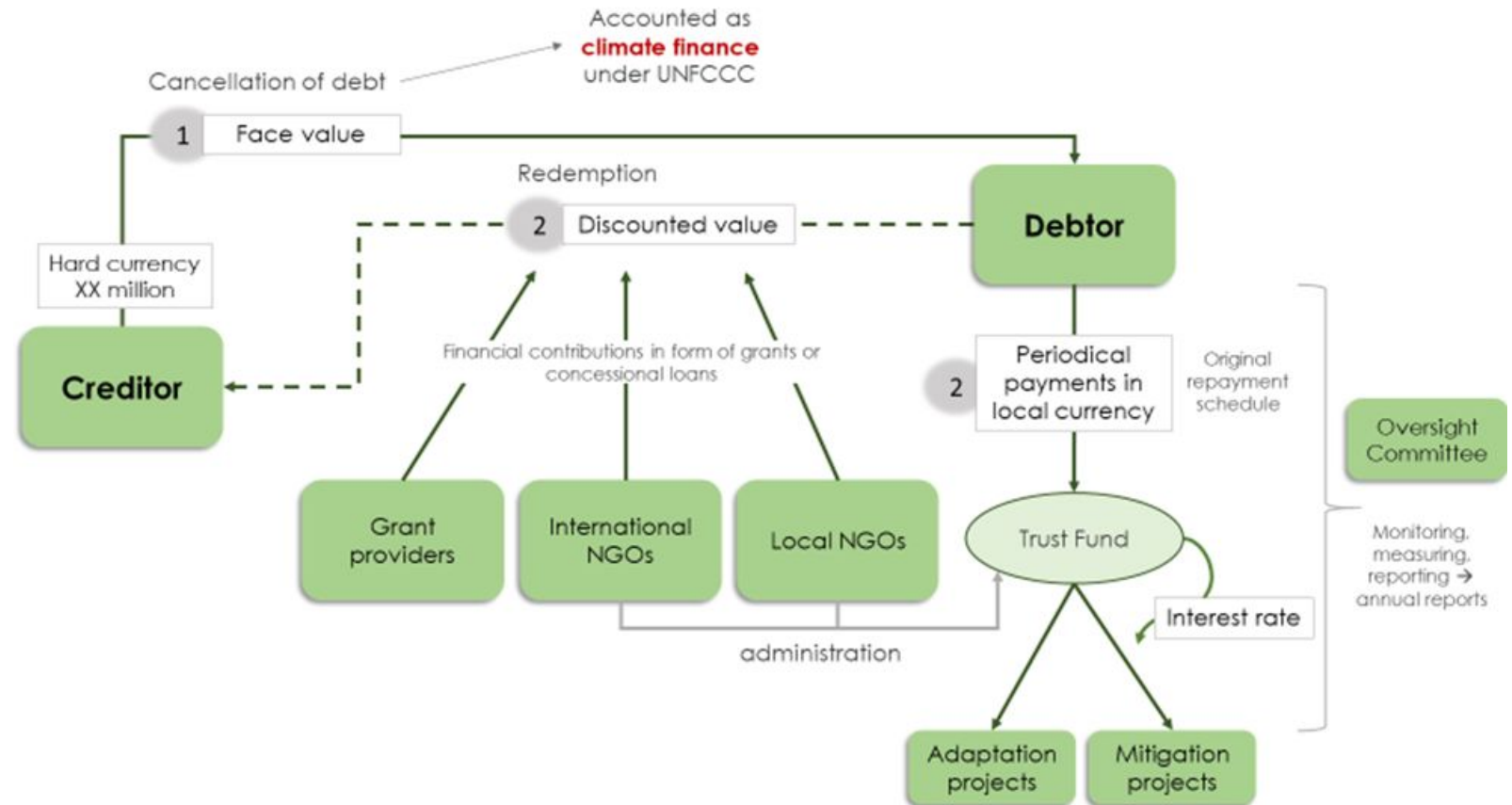


# Inclusive and Sustainable Businesses (ISBs) towards positive changes in communities and ecosystems



# Potential for climate financing in debt restructuring

- Use of Nature, Culture and Heritage Resources Combined with Climate Impacts.
- Sustainable Finance Committee at Secretariat
- Need sound Management Effectiveness Tracking
- Reliable reporting systems for debtors with Certifications
- Pipeline of Sound Programmes/ Projects



**Public and private financing including capital markets towards Climate Smart SDGs**  
**Enhancing Sustainable financing eco-system in Sri Lanka**

**Public Finance**

**SDG Budget  
Cording and  
Tagging**  
SDC/ NBD/  
UNDP

**SDG  
Taxation  
Framework**  
Ministry of  
Finance/  
UNDP

**Capital Markets**

**Debt for  
Nature/  
Climate Swap**  
Presidential  
Sec with  
partners

**Sovereign  
Green Bond  
Framework**  
MoF/ ESCAP  
with other  
partners

**Sustainable  
Finance  
Road Map**  
CBSL/ UNDP

**Private Finance**

**Green  
Finance  
Taxonomy**  
CBSL/ IFC

**Regulatory  
Framework  
for Green  
Bond  
Issuance**  
SEC/ ADB

**SDG  
Investor  
Map**  
SDC/ BOI/  
CCC/ UNDP

**Integrated National Finance Framework (INFF)**

# Opportunities needing the use of science-based targets, joint programming and management effectiveness tracking

- Increasing recognition of climate resilience, nature base and nature positive solutions and ecosystem management as a solution to climate resilience.
- Investing in ecosystems and ecosystem services with blended and innovative financing (climate swaps, debt for nature swaps, bonds etc.)
- Potential to prepare / be ready to capitalize on and adopt “EU green deal”, “EU social climate fund”, “loss and damage funds” in COP 28 in UAE 2023, etc.
- Global ESG approaches to promote circularity, life-cycle analysis, green supply chains, cleaner production, science-based targets, sustainable consumption and production etc. in industries, urban settings to reduce footprints.



# Sri Lanka Recovery Process leading to Net Zero and UN SDGs

**Post-Covid and Economic downturn**



*Expected recovery using debt restructuring and vice use of natural capital (2023 onwards)*

**Recovery of the economy with increase attention to natural capital related spatial planning and investments**

*Expected developing country status by 2048 with a low-carbon economy capitalizing on Nature, Culture and Heritage*

*Sri Lanka Climate Prosperity Plan (CPP), Central Bank Green Taxonomy, NDC Implementation, Agriculture Modernization, Sustainable Land use, Integrated Water management, Ecosystems Governance, Natural Capital Accounting, UN SDG mainstreaming in budgets, investments etc.*

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- The first day of the ICCF will concentrate on Climate Adaptation Challenges in the country, along with potential local and global solutions.
- The second day will be dedicated to the development of coordination, project development, and financing mechanisms to address challenges.
- Research gaps and the need to conduct policy dialogues identified will be promoted through follow up sessions and thorough the proposed International Climate Change University.
- Showcase the outcomes of the conference (initial presentation at the closing session) at the Climate COP28 scheduled for December 2023 in the UAE.



# Thank you!

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