

# TRAINING MODULE ON WORKSHOP ON LOCALLY LED ADAPTATION AND BUILDING COMMUNITY RESILIENCE

Location: Porjoton Holiday Complex, Rangamati



# Imprint

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**| Module I: Strengthening Climate Resilient Livelihoods  
through Locally Led Adaptation in the Chittagong Hill  
Tracts (CHT)**

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# Section 1: Overview of the Training Module

## 1.1 Brief Introduction to the Module

Supriya Tripura, Program Officer, Livelihoods, UNDP, will be the lead facilitator of this particular session.

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	Tutor	Supriya Tripura
	Subject	Fundamentals of Resource Mobilization
	Time	This training session will be almost an hour.
	Learning Outcomes	This module aims to provide a basics of Key areas of focus include understanding livelihood challenges, promoting sustainable agriculture, and utilizing local knowledge for climate resilience. It also focuses on building climate-resilient livelihoods through Locally Led Adaptation (LLA), particularly in the Chittagong Hill Tracts (CHT) of Bangladesh
	Materials used	Desktop/laptop Multimedia projector PowerPoint Presentation
	Topics	<ul style="list-style-type: none"><li>• Climate Finance</li><li>• Locally Led Adaptation</li><li>• Adaptation Finance Gap</li><li>• Global Goal Adaptation</li><li>• Climate Change Bangladesh</li><li>• Bangladesh Climate Framework</li><li>• Green Climate Fund</li><li>• Nature-Based Solutions</li><li>• Power Dynamics</li><li>• Livelihoods (CHT)</li><li>• Barriers to LL</li></ul>

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## Section 2: Introduction

### 2.1. Overview of Climate Vulnerabilities in CHT

The Chittagong Hill Tracts (CHT) region faces significant climate vulnerabilities that threaten the livelihoods and well-being of its inhabitants.



Figure 1: Climate Vulnerabilities in 3 Hill Districts.

### CHT is identified as highly climate-vulnerable

The CHT region is recognized as one of the most climate-vulnerable areas in Bangladesh. This is based on the Climate Vulnerability Index (CVI) and further supported by the World Bank, which identifies CHT as a climate hotspot in South Asia. This recognition underscores the urgent need for targeted interventions to build resilience in the region.

### Climate change may cause significant declines in living standards in Bandarban and Rangamati

Climate change is projected to cause a substantial decline in living standards in the CHT region by 2050. Specifically, Bandarban could see an 18.4% decrease, and Rangamati a 15.8% decrease. These declines highlight the potential economic impacts of climate change on local communities, necessitating proactive adaptation measures.

### Climatic events can intensify conflicts over resources

Climatic events are identified as a driver for increased conflict over resources. This can potentially fuel long-standing social and political crises. The intersection of climate change and existing tensions poses a significant threat to social stability in the region, requiring integrated approaches that address both environmental and socio-political factors.

### Broader Context of Climate Change Impacts



The shifts in rainfall patterns lead to droughts and water shortages, especially during dry seasons. Rising temperatures and rainfall variability increase the vulnerability of agriculture-based livelihoods. Deforestation, soil erosion, and poor water management exacerbate this water resource impacts, leading to reduced water retention and groundwater recharge, as well as the drying of natural water bodies, contributing to water scarcity and low water quality. Extended droughts can lead to the permanent drying of hill springs, disproportionately affecting women's access to water and employment opportunities.

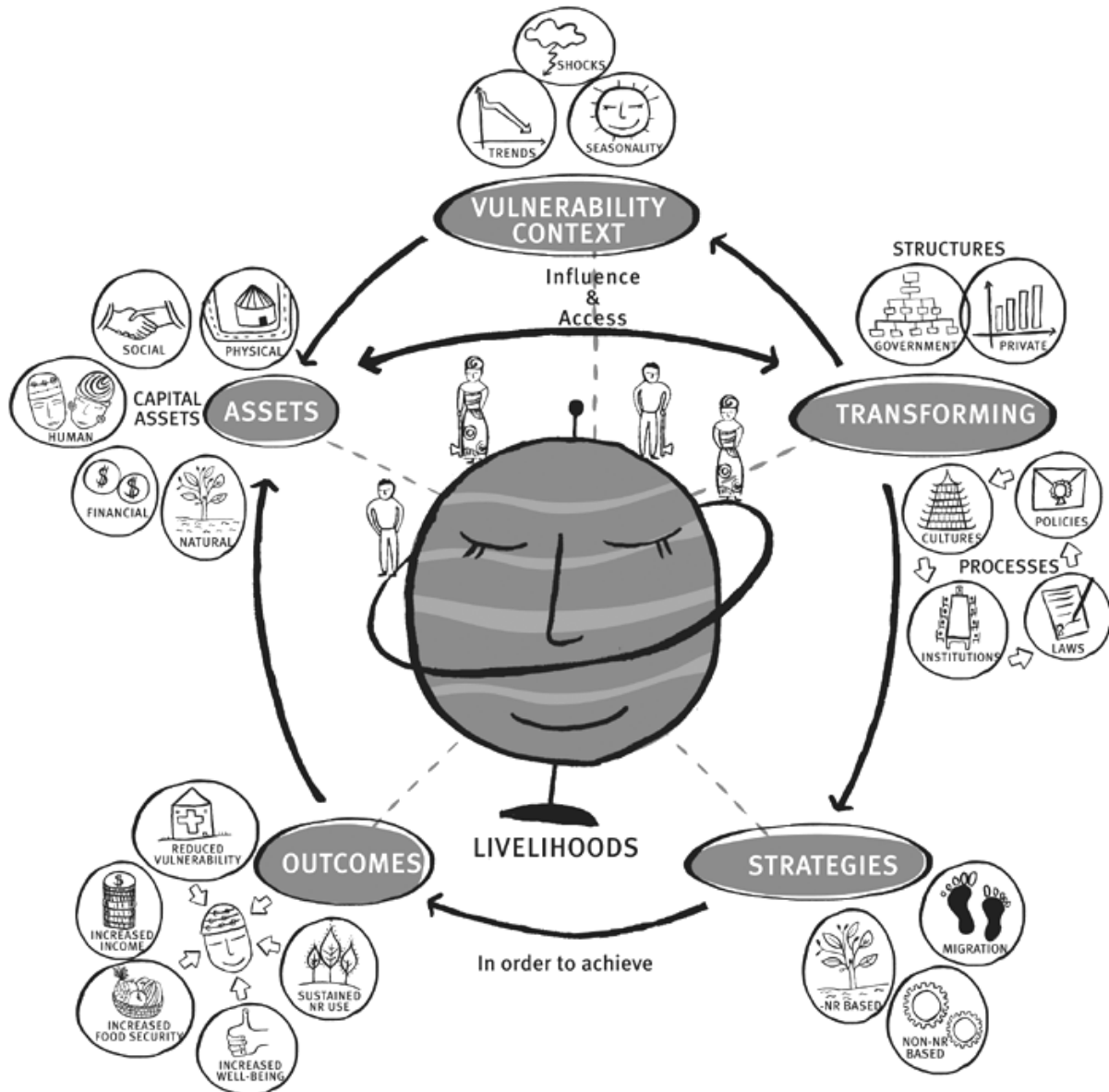


Figure 2: Strategies for building climate resilient livelihoods.

## 2.2 Locally Led Adaptation (LLA)

### LLA values local knowledge and ensures equitable access to resources for local actors

Locally Led Adaptation (LLA) recognizes the importance of local knowledge and expertise in addressing climate risks. This approach ensures that local actors, who are on the front lines of climate change, have equitable access to power and resources to build resilience.

### LLA was piloted in CHT through the Danida-funded CCRP project

LLA was piloted in CHT through the Danida-funded CHT Climate Resilience Project (CCRP) from 2018-2021. The CCRP initiative by the Rangamati Hill District Council (RHDC) received a Global Center on Adaptation (GCA) Award in the leadership category.

The project formed 20 Climate Resilience Committees (CRC) in 20 micro-watershed areas from 106 communities, raising climate awareness among a total of 24,892 people. Furthermore, the project developed 20 Community Climate Vulnerability Assessments (CCVAs) and 20 Local Resilience Plans (LRPs), which have emerged as global examples of Locally Led Adaptation. A standard methodology to conduct CCVAs and LRPs was developed, which can be scaled up in

## 8 PRINCIPLES FOR LOCALLY LED ADAPTATION

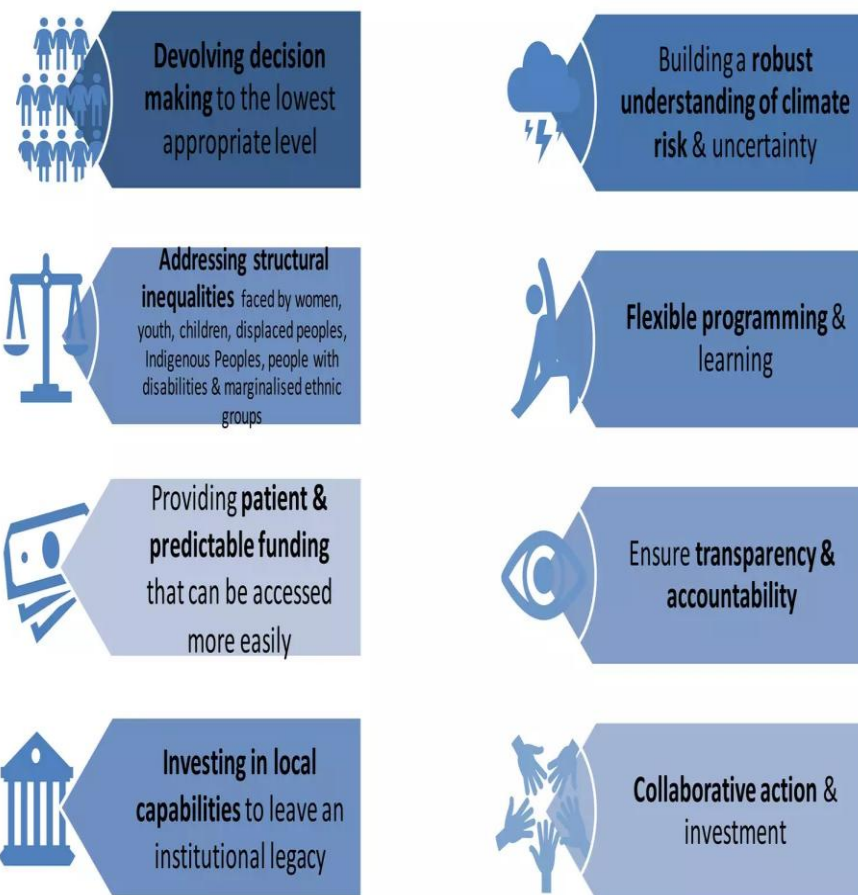


Figure 3: Principles of Locally Led Adaptation.

other parts of the country. Additionally, 75 climate-adaptive schemes were implemented, such as gravity flow systems, infiltration gallery systems, water lifting through solar energy, rainwater harvesting, and community water supply by solar power, considering the climate change vulnerability and adaptation in 20 LRP sites. Also, a framework for CHT climate change resilience was developed.

## **Section 3: Understanding Livelihood Assets and Challenges in CHT**

### **3.1. Livelihood Assets**

In the Chittagong Hill Tracts (CHT), livelihoods are intricately linked to the interplay of human, natural, physical, financial, and social capital. These assets collectively determine the ability of communities to secure their basic needs, adapt to changes, and improve their overall well-being. Human capital encompasses the skills, knowledge, education, and health of individuals, which are crucial for engaging in various economic activities. However, the CHT region faces challenges such as low human development and high poverty, with limited access to education, healthcare, and vocational skills, hindering livelihood diversification. The low HDI score of 0.520 compared to the national average of 0.632 underscores this disparity.

Natural capital refers to the natural resources available, including land, forests, water, and biodiversity. The CHT is rich in these resources, which are traditionally managed by indigenous communities. However, dwindling common property resources and increasing landlessness due to population growth, infrastructure development, and unsustainable agriculture practices pose significant threats. Physical capital includes infrastructure such as roads, transportation, and market access, which are essential for economic activities. The CHT suffers from weak physical infrastructure and poor market access due to its rugged terrain and inadequate road networks, limiting economic opportunities and market access for agricultural products. Financial capital involves access to financial resources such as savings, credit, and insurance, which enable investments in livelihood improvements. Limited access to formal financial services and the prevalence of informal lending practices restrict the ability of tribal people to start businesses, pursue education, and invest in assets. Social capital, characterized by networks, relationships, and social support systems, plays a crucial role in accessing resources and opportunities.

Table 1: The trend of forest resources extraction by local communities in CHT.

Extracted resources	Increasing			Decreasing			Same as before		
	R	K	B	R	K	B	R	K	B
Timber	20	25	66.6	70	75	33	10	–	–
Fuelwood	27	18	58	60	82	–	13.1	–	41.6
House posts	20	25	88	60	75	–	20	–	13
Bamboo	45	20	70	36.4	80	10	18.1	–	20
Broomstick	45	–	60	54.5	87.5	–	–	–	40
Fish	33	2	50	33.3	55.6	–	33.3	–	50
Cane	–	–	29	–	80	14	–	20	57
NTFPs	–	4	–	–	76	80	–	20	20

R: Rangamati; K: Khagrachari; B: Bandarban district. Number of respondents = 210.

Table 2: Perception on forest resources availability in CHT.

Name of resources	Increasing (%)			Decreasing (%)			Same as before (%)		
	R	K	B	R	K	B	R	K	B
Timber	30	–	83	60	62.5	–	10	–	17
Fuelwood	20	37.5	8	66.6	72.2	50	13.3	9.1	42
House posts	60	18.2	–	20	62.5	88	20	–	13
Bamboo	18.2	37.5	10	63.6	70	70	18.2	10	20
Broomstick	18.2	20	60	81.8	62.5	20	–	12.5	20
Fish	–	20	–	100	50	75	–	50	25
Cane	–	25	–	–	80	–	–	20	Rare
NTFPs	–	1.8	–	–	73.2	86	–	25	14
Medicinal plant	–	–	–	90	85	80	10	15	20

R: Rangamati; K: Khagrachari; B: Bandarban district. Number of respondents = 210.

Table 3: Purpose of forest resources extraction in CHT.

Extracted resources	Household use (%)			Sell to the market (%)			Both purposes (%)		
	R	K	B	R	K	B	R	K	B
Timber	90	87.5	100	×	×	×	10	×	×
Fuelwood	93	90.9	100	×	×	×	6	×	×
House posts	100	75	100	×	×	×	×	×	×
Bamboo	81	60	90	×	×	×	×	×	10
Broomstick	81	66.7	60	×	×	×	18	×	40
Fish	100	50	100	×	×	×	×	×	×
Cane	×	73.3	×	×	2.7	×	×	25	×
NTFPs	×	×	100	×	25	×	×	75	×
Medicinal plant	Primary treatment								

R: Rangamati; K: Khagrachari; B: Bandarban district. Number of respondents = 210.

Table 4: Factors affecting people's dependency on forest resources in CHT.

Variables	Estimate	Std. error	Odds ratio	z-Value
(Intercept)	-2.5934	1.9435	0.0748	-1.334
Age	0.0347	0.0399	1.0353	0.87
Occu2	-0.1603	0.6588	0.8519	-0.243
Occu3	2.6879	0.7459	14.7008	3.603***
Education_level	-0.2684	0.0958	0.7646	-2.799**
Forest_income	0.7051	0.1506	2.0240	4.681***
Family_size	0.1264	0.2313	1.1347	0.547

\*\*Significant at 1% level and \*\*\*Significant at 0.1% level; Dependent Variable = Forest Dependence (1 if dependent, 0 otherwise); Age = Age of respondents (years); Occu = Occupation (1 if jhum or agriculture; 2 if labor/teacher/business/others (except forest-related); 3 if gardening/horticulture/ plantations in the hills); Education\_level = Education (No. of schooling years); Forest\_income = Forest income (in thousand BDT); Family\_size = Family size (number of family members).

## 3.2. These Assets Minimize Vulnerabilities and Ensure Food Security and Health

The effective utilization and accumulation of human, natural, physical, financial, and social capital are essential for minimizing vulnerabilities and ensuring food security and health in the CHT. When these assets are strategically combined and managed, they can enhance livelihood activities and improve overall well-being. For instance, investments in education and vocational training (human capital) can lead to better employment opportunities and higher incomes, reducing dependence on natural resources and enhancing adaptive capacity. Sustainable management of natural resources (natural capital) can ensure the long-term availability of essential resources such as water, timber, and non-timber forest products, supporting livelihoods and ecosystem services.

Improvements in physical infrastructure (physical capital), such as roads and transportation, can facilitate market access for agricultural products, reduce post-harvest losses, and stimulate economic growth. Access to financial services (financial capital) enables households to invest in productive assets, diversify income sources, and cope with shocks and stresses. Strong social networks and community-based organizations (social capital) can provide support during times of crisis, facilitate access to information and resources, and promote collective action for sustainable development. The interaction of these livelihood assets can lead to a virtuous cycle of improved food security, better health outcomes, and reduced vulnerability to climate change and other shocks. For example, households with access to diverse income sources, education, and social support are better equipped to cope with food shortages, natural disasters, and economic downturns.

## 3.3. Livelihood Challenges

### 3.3.1. Dwindling Common Property Resources and Increasing Landlessness

The Chittagong Hill Tracts (CHT) is rich in natural resources traditionally managed by indigenous communities; however, these resources are under increasing strain. **Population growth, infrastructure development, and land-use changes are leading to the depletion of common property resources.** This is compounded by increasing landlessness, affecting approximately 36% of the population, primarily due to land-grabbing, which poses a significant challenge to livelihoods. The traditional practice of jhum cultivation, or shifting cultivation, is also affected, with shortened cycles (3-4 years) reducing soil fertility and threatening food security. **Deforestation and the expansion of monoculture farming worsen soil erosion and lead to biodiversity loss, further degrading the natural resource base.** The decline of natural forests impacts livelihoods and reduces the ecosystem services crucial for sustaining communities. These factors collectively undermine the ability of local

populations to maintain their traditional livelihoods and adapt to changing environmental conditions. The historical marginalization and social isolation of the tribal people in CHT have curtailed livelihood opportunities, affecting food security, diet, and nutrition.

Land-use types	Key changes	Underlying causes	Effects on food security and ecosystems
<u>Agriculture land use until 1970s</u>	<u>After 1970s and to date</u>		
<ul style="list-style-type: none"> <li>- Shifting cultivation with a long fallow period (&gt; 10 years)</li> <li>- Low level of agriculture input systems and subsistence oriented</li> <li>- Much more forest vegetation</li> <li>- Diversity of annual crops</li> </ul>	<ul style="list-style-type: none"> <li>- Decrease of fallow period in shifting cultivation</li> <li>- Intensive cultivation of lands with agriculture inputs (i.e. fertilizer, water and labor)</li> <li>- Increased cash crop production (mainly horticulture, lower yields of annual crops e.g. ginger, turmeric, paddy, tobacco, maize etc.)</li> <li>- Increased use of plough agriculture for cultivation of cash crops</li> </ul>	<ul style="list-style-type: none"> <li>- Limited land availability and accessibility</li> <li>- Lower productivity of land</li> <li>- Population growth</li> <li>- Loss of forest vegetation and soil nutrients</li> </ul>	<p><u>Positive:</u></p> <ul style="list-style-type: none"> <li>- Increased food quantity of few crop varieties and cash incomes</li> <li>- Limited forest area or land required for cultivation</li> </ul> <p><u>Negative:</u></p> <ul style="list-style-type: none"> <li>- Less numbers of food crops cultivated</li> <li>- Loss of locally available food crops and seed sources</li> </ul>
<u>Forestland uses until 1960s</u>			
<ul style="list-style-type: none"> <li>- Intact forests of natural origin</li> <li>- A good numbers of watersheds (annual and perennial for major water supply to the local population)</li> </ul>	<ul style="list-style-type: none"> <li>- Fragmentation of natural forests into semi-natural or mixed ecosystems (bamboo with timber) or large grasslands</li> <li>- Man-made intensive plantations of commercially important timber plants (teak) increased in both government and private lands</li> <li>- Rubber and different pulp wood species increased as raw materials for government and private industries</li> </ul>	<ul style="list-style-type: none"> <li>- Excessive logging for government revenue earning and infrastructural development</li> <li>- Illegal logging of trees and encroachment of forest areas</li> <li>- Clear felling methods</li> <li>- Pressures for increasing shifting cultivation areas</li> <li>- Increased demand for raw materials for industries</li> </ul>	<p><u>Positive:</u></p> <ul style="list-style-type: none"> <li>- Increased cash incomes in a small number of households</li> </ul> <p><u>Negative:</u></p> <ul style="list-style-type: none"> <li>- Increased intensive use of commercial plantations, reduced agriculture cultivation areas</li> <li>- Declines of availability of forest and NTFPs can affect the livelihoods of subsistence users</li> <li>- Loss of watershed affects forest ecosystem services (i.e. small fish catch, irrigation, daily use of household water, climate regulation etc.)</li> </ul>

Figure 4: Historical trends of forest and agriculture land-use changes, their causes and effects in Chittagong Hill Tracts.

### 3.4. Unsustainable Agriculture Practices:

Agriculture is central to the livelihoods in the CHT, with both shifting and sedentary farming practices. However, the sustainability of these practices is questionable. Indigenous land rights are often undermined, and development projects can lead to displacement and conflicts, exacerbating the challenges faced by local communities.

#### 3.4.1. Shifting Cultivation Causes Soil Erosion and Fertility Loss

Shifting cultivation, locally known as jhum, is a widespread practice in the CHT, but its sustainability is compromised by shortening fallow periods. **The reduction in fallow duration leads to significant soil erosion and a decline in soil fertility**, making it difficult for farmers to sustain crop yields. This decline in productivity threatens the food security of communities dependent on jhum cultivation. Modification of shifting agriculture with intensive crop and fruit cultivation can reduce soil erosion, sustain production and meet the growing demand for food.

#### 3.4.2. Expansion of Root Crops Exacerbates Land Degradation

The expansion of root crops in the CHT further exacerbates land degradation. While root crops can provide a source of food and income, their cultivation practices often contribute to soil erosion and nutrient depletion. This can lead to long-term damage to the land, reducing its productivity and affecting the livelihoods of future generations.



#### 3.4.3. Tobacco Cultivation Impacts Soil Fertility and Biodiversity

Tobacco cultivation has a detrimental impact on soil fertility, biodiversity, and natural forests in the CHT. Tobacco farming is known to deplete soil nutrients and degrade the land, making it unsuitable for other crops. **The practice also contributes to deforestation as land is cleared for tobacco cultivation, leading to a loss of biodiversity and ecosystem services.** Additionally, the use of fertilizers and pesticides in tobacco farming can pollute water sources and harm wildlife, further threatening the region's ecological balance.

### 3.5. Low Human Development and High Poverty

#### 3.5.1. High Poverty Rates, Especially Among Indigenous Communities

The Chittagong Hill Tracts (CHT) faces **high poverty rates, particularly among its indigenous tribal communities.** This is attributed to historical marginalization, social isolation, and limited access to opportunities. These communities often lack the resources and support needed to improve their living standards, perpetuating a cycle of poverty.

#### 3.5.2. Limited Access to Basic Services and Food Insecurity

**Non-income poverty is prevalent in the CHT, with many residents having limited access to basic services such as electricity, drinking water, and sanitation facilities.** Geographical constraints further limit access to health services, exacerbating health disparities. **Food insecurity persists in the region, with low daily energy intake and a high prevalence of child malnutrition.** These factors collectively hinder livelihood improvement and contribute to the overall vulnerability of the population.

#### 3.5.3. Low HDI Score Compared to the National Average

The **Human Development Index (HDI) score for the CHT is 0.520, significantly lower than the national average of 0.632.** This disparity underscores the development challenges faced by the region and highlights the need for targeted interventions to improve human development outcomes. The low HDI reflects deficiencies in health, education, and standard of living, which are essential for sustainable livelihood development.

### 3.6. Limited Access to Financial Resources

#### 3.6.1. Limited Access to Formal Financial Services

**Access to formal financial services, such as banks and microfinance institutions, is limited in the CHT.** This lack of access restricts the ability of individuals and communities to invest in productive activities and improve their livelihoods. The absence of formal financial infrastructure further marginalizes the tribal population, hindering their economic advancement.

### 3.6.2. Only a Small Percentage of Households Benefit from Cooperatives or Micro-Credit

**Only about 3% of households in the CHT benefit from cooperatives or micro-credit institutions.** This indicates a significant gap in financial inclusion, leaving the vast majority of households without access to essential financial services. Moreover, even when loans are accessed, men often decide on their utilization, which may not always benefit the borrower or ensure repayment.

### 3.6.3. Lack of Capital Restricts Access to Loans

**The lack of social and economic capital restricts access to loans for many tribal people in the CHT.** This difficulty in accessing financial resources hampers their ability to start businesses, pursue education, afford healthcare, and invest in assets, further perpetuating poverty. Without adequate financial support, it is challenging for communities to break free from the cycle of poverty and achieve sustainable development.

## 3.7. Weak Physical Infrastructure and Poor Market Access

### 3.7.1. Inadequate Infrastructure and Limited Market Access Pose Challenges

In the Chittagong Hill Tracts (CHT), **inadequate physical capital and limited market access present significant livelihood challenges.** The lack of essential infrastructure impedes economic activities and restricts the ability of communities to improve their living standards. Without proper infrastructure, the region's economic potential remains largely untapped, hindering sustainable development.

### 3.7.2. Rugged Terrain and Poor Road Networks Hinder Economic Activities

**The rugged terrain and poor road networks in the CHT hinder economic activities.** High transportation costs and difficulties in accessing markets limit the ability of farmers to sell their agricultural products and purchase necessary inputs. Most hamlets are far from all-weather roads, forcing reliance on subsistence agriculture and informal labor, further isolating communities and limiting economic opportunities.

### 3.7.3. High Post-Harvest Losses Due to Poor Infrastructure

**Poor market infrastructure and storage facilities result in high post-harvest losses, with up to 33% of agricultural produce being lost.** This not only reduces the income of farmers but also contributes to food insecurity in the region. The absence of physical and economic facilities, such as roads and processing plants, deprives the tribal population of financial capital and technological rights, impeding industrial development.

## 3.8. Climate Change and Shortages of Water

### 3.8.1. Shifts in Rainfall Patterns Lead to Droughts and Water Shortages

**Climate change and water scarcity pose significant challenges in the CHT,** with shifts in rainfall patterns leading to droughts and water shortages during dry seasons. These changes increase the vulnerability of agriculture-based livelihoods,



threatening food security and economic stability. The mean monthly temperature and precipitation data for Rangamati reflect the climatic conditions in the region.

#### 3.8.2. Deforestation and Poor Water Management Worsen Impacts

**Deforestation, soil erosion, and poor water management worsen the impacts of climate change on water resources in the CHT.** Reduced water retention, groundwater recharge, and the drying of natural water bodies contribute to water scarcity and low water quality, affecting both human and ecological health.

#### 3.8.3. Extended Droughts Dry Up Hill Springs

**Extended droughts lead to the permanent drying of hill springs, disproportionately affecting women's access to water and employment opportunities.** This scarcity of water resources further exacerbates livelihood challenges and increases the vulnerability of communities to climate change impacts.

## Session 4: Understanding Livelihood Assets and Challenges in CHT

### 4.1. Limited Non-farm Employment Opportunities

- The Chittagong Hill Tracts (CHT) faces a **scarcity of non-farm employment opportunities**, which significantly limits livelihood diversification.
- **Lack of investment** due to security concerns and political unrest further restricts available livelihood options.
- **Low entrepreneurship** and limited private investment result in a constrained non-farm sector.
- The **inability of both farm and non-farm sectors to absorb the growing labor force** leads to youth unemployment.
- **Limited education, vocational skills, access to information, and networks hinder the ability to seek employment outside the region**, which further impedes livelihood diversification.

### 4.2. Policies and Institutions

- **Historical policies and neglect** have significantly shaped livelihood strategies in the CHT.
- **British colonial rule** isolated and neglected the region, resulting in socioeconomic stagnation.
- **Post-colonial policies** have not adequately recognized tribal culture and land rights, leading to the marginalization of indigenous communities.

- The CHT has often been perceived as a **resource hub**, leading to the prioritization of resource exploitation over the development of the local economy.
- **Conflicts with Bengali settlers** have caused displacement and loss of resources, increasing vulnerability to poverty and food insecurity among the tribal population.

## Session 5: Building Climate Resilient Livelihoods

### 5.1. Strategies to Increase Adaptive Capacity and Climate Resilience

To build climate-resilient livelihoods in the Chittagong Hill Tracts (CHT), several strategies can be implemented.

- **Awareness at every level** is crucial, involving households, communities, local government institutions (LGIs), traditional leaders, and civil society.
- A **joint community effort** with a holistic approach, combined with institutional support, is essential.
- **Traditional knowledge** should be recognized and utilized.
- **Integrated Farm Management (IFM)**, which combines crops, vegetables, fruits, livestock, and fish, can enhance resilience.
- **Diversification** ensures that if one component fails, another can provide support for survival.
- **Newly evolved techniques**, such as crop growing in controlled environments, and farm mechanization can also play a role.

### 5.2. Climate-Smart Agriculture/Livelihoods

Climate-smart agriculture and livelihood strategies involve several key practices.

- **Crop and fruit management** through IFM, intercropping with legumes, crop rotation, and the use of drought and pest-tolerant varieties.
- **Livestock management** using rotational grazing, fodder crops, grassland restoration, and manure treatment.
- **Soil and water management** through conservation agriculture, such as minimum or zero tillage, contour planting, water storage, and improved irrigation methods like drip irrigation.
- **Agroforestry** practices.
- **Integrated food energy systems** such as biogas and improved stoves.

### 5.3. Key Considerations for Climate-Smart Approaches

Effective climate-smart approaches should be water-smart, weather-smart, nutrient-smart, energy-smart, and knowledge-smart. These approaches can be strengthened through **Community Based Adaptation (CBA)**, and **Locally Led Adaptation (LLA)**, which values local knowledge and ensures local actors have equitable access to power and resources. The Danida-funded CHT Climate Resilience Project (CCRP-2018-2021) piloted LLA in CHT.

women are empowered



*'This year, I have cleared more fallow land as I see the opportunities are there to cultivate with a solar pump which we never thought before'*  
**Ratna Chakma, Jurachari**



*'I'm very glad to **UNDP** and **DANIDA** for the water access to my doorstep at this tough terrain. I m visually impaired and I had to even collect water from streams earlier'*

Figure 5: CCRP Achievements in Action.

The CCRP Achievements include:

- Formation of 20 Climate Resilience Committees (CRC) in 20 micro-watershed areas from 106 communities, enhancing climate awareness for a total of 24,892 people.

- Development of 20 Community Climate Vulnerability Assessments (CCVAs) and 20 Local Resilience Plans (LRPs).

- Implementation of 75 climate-adaptive schemes, such as gravity flow

systems, infiltration gallery systems, water lifting through solar energy, rainwater harvesting, and community water supply by solar power.

- Development of a framework for CHT climate change resilience.

Challenges to applying these solutions include farm mechanization difficulties for small-size farming, and a lack of internet connectivity that hampers access to smart technologies. However, opportunities exist through CHT institutions, the resourcefulness of farmers, the presence of multiple farming components, the ability of hills to support vegetable growing during plain land floods, and the utilization of indigenous knowledge.





CHT Leaders were engaged and the capacity to deal with Climate Change increased

## Session 6: Locally Led Adaptation in Action

### 6.1. Community-Based Adaptation (CBA)

**Community Based Adaptation (CBA)** is a key element in strengthening climate-resilient livelihoods, as is **Locally Led Adaptation (LLA)**. Locally led adaptation recognizes the value of local knowledge and expertise to address climate risk and ensures that local actors on the front lines of climate change have equitable access to power and resources to build resilience.

## 6.2. CCRP Achievements

The Danida-funded **CHT Climate Resilience Project (CCRP-2018-2021)** piloted **LLA in CHT**. CCRP Achievements include:

- CCRP initiative by RHDC Received GCA Awards (leadership category).
- Formation of 20 **Climate Resilience Committees (CRC)** in 20 micro-watershed areas from 106 communities, enhancing climate awareness for a total of 24,892 people.
- Development of 20 **Community Climate Vulnerability Assessments (CCVAs)** and 20 **Local Resilience Plans (LRPs)**.
- A standard methodology to conduct CCVA and LRP was developed which can be scaled up in other parts of the country as well.
- Implementation of 75 climate-adaptive schemes, such as gravity flow systems, infiltration gallery systems, water lifting through solar energy, rainwater harvesting, and community water supply by solar power.
- Development of a framework for CHT climate change resilience.

## 6.3. Challenges and Opportunities

Challenges and Opportunities to applying proposed solutions like Climate Smart Agriculture (CSA) and Farm mechanization include:

- **Challenges:**
  - Application of proposed solutions e.g. CSA, Farm mechanization etc.
  - Farm mechanization is difficult for small size farming.
  - Lack of internet connectivity hampers access/use of smart technologies in agriculture.
  - Awareness - behavioral change – application is a challenge.
- **Opportunities:**
  - CHT Institutions (Traditional leaders-headmen, karbari system, Hill District Council).
  - Farmers are not resource poor.
  - More than one farming component found in CHT.
  - Hills can support growing vegetables when plain land are flooded.
  - Indigenous knowledge.

## Session 7: Addressing Food Security

### 7.1. Causes of Food Insecurity

Food insecurity in the Chittagong Hill Tracts (CHT) is driven by several factors:

- **Low yields in Jhum crops** are a major cause of food insecurity.
- **Limited land for cultivation** restricts agricultural output.
- **Crop damage** from various sources further reduces food availability. Other causes include rodent threats, limited working facilities, and lack of cash. Jhum crops can be damaged by drought, wild animals, water stagnation, and flash floods.

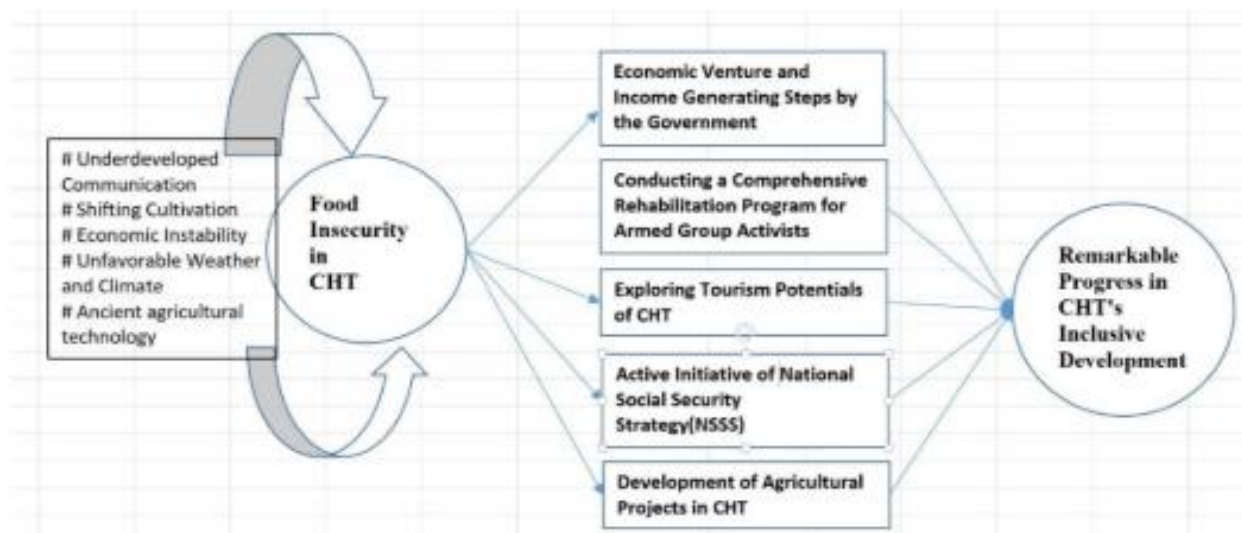


Figure 6: Way out to ensure food security in CHT.

### 7.2. Factors Affecting Household Food Security

Household food security is influenced by multiple factors:

- **Aggregate farm output** and **household size** are significant determinants.
- **Average food prices** affect the affordability of food.
- **Farming experience** and **education** levels play a role.
- **Access to credit, extension services,** and **farm size** also impact food security. Income, farm size, extension contact, education, and time spent in jhum farming positively impact household food security. Food price has a negative impact.

Physical risks such as wild animal attacks and theft of garden fruits, as well as natural vulnerabilities like rodent threats, flash floods, and droughts, further exacerbate food insecurity.

### 7.3. Strategies for Ensuring Food Security

To ensure food security in the CHT, it is essential to:

- **Promote diversified agriculture** that is resilient and nutrition-sensitive. This includes the cultivation of Neglected and Underutilized Species (NUS) which offers nutritious and climate-resilient crop options, contributing to livelihood diversification and environmental sustainability.
- **Recognize the critical roles of women** in ensuring long-term food security and nutrition. Women were the primary target of horticulture and poultry interventions.
- Implement a **comprehensive social protection system** to ensure no one is left behind.
- **Generate and share relevant knowledge**, using a rights-based approach to human rights.
- **Address the shift from Jhum cultivation to horticulture** by improving agricultural inputs and capacity development to boost agricultural production, diversity, and sustainability.
- **Promote climate-smart agriculture** with crop/fruit management, livestock management and soil and water management.
- **Promote livelihood options** such as high value agriculture, agroforestry, NTFPs, and fisheries.



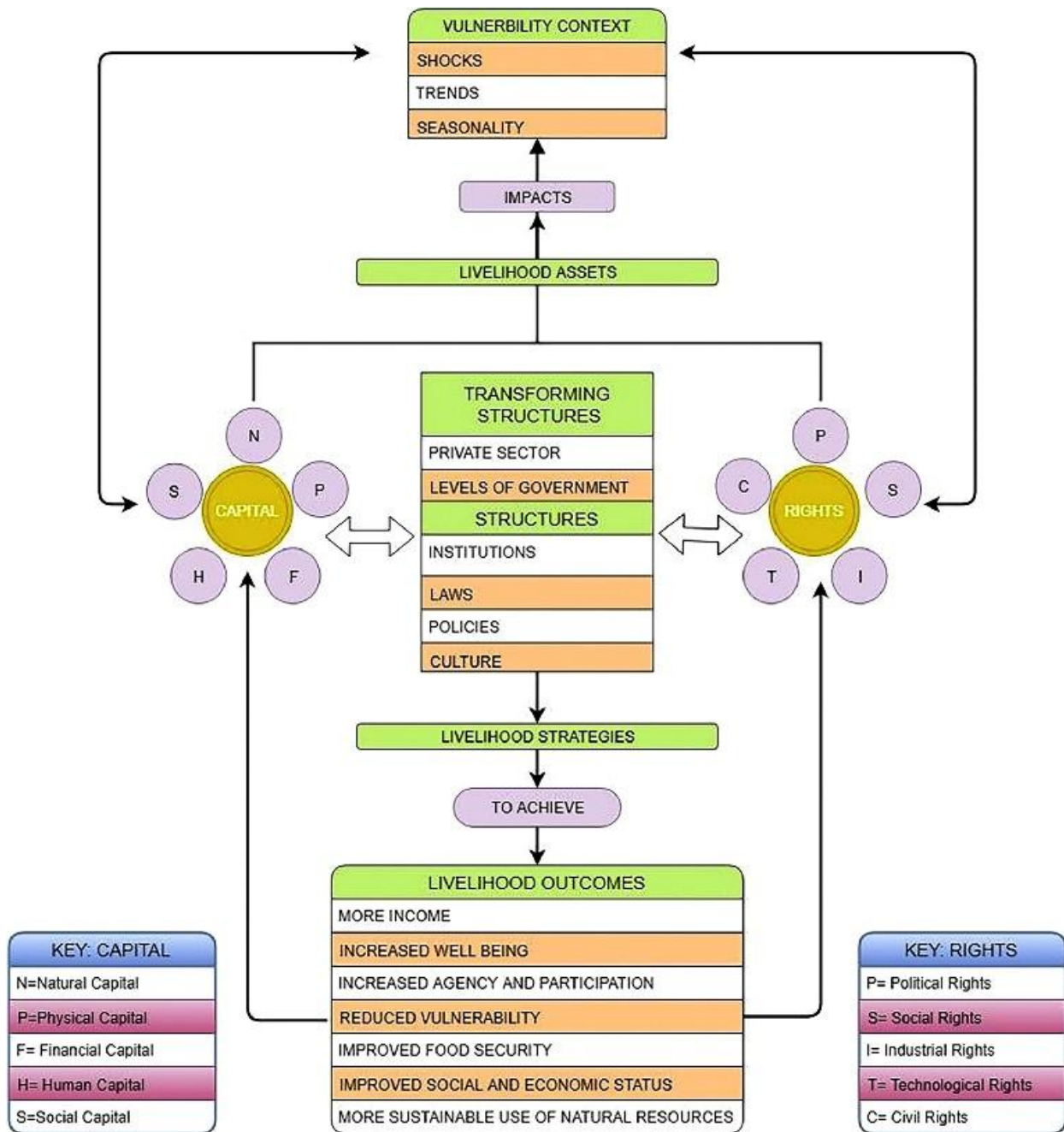


Figure 7: Conceptual framework for sustainable livelihood development.

## Session 8: Risk Mitigation and Coping Strategies

### 8.1. Physical Risks

To mitigate physical risks to livelihoods in the Chittagong Hill Tracts (CHT), it's important to address:

- **Wild animal attacks:** These are a major physical risk to livelihoods, reported by a majority of ethnic respondents.



- **Theft of garden fruits:** This is a social problem reported by ethnic groups in Rangamati and Bandarban.
- Other physical risks:
  - Land conflict
  - Boundary conflict
  - Death of income earner
  - Robbery
  - Risks associated with receiving loans

## 8.2. Natural Risks/Vulnerabilities

Preparing for natural risks and vulnerabilities is crucial:

- **Floods:** Flash floods are a significant concern, with crop damage reported due to water stagnation and flash floods from Kaptai Lake.
- **Droughts:** Droughts lead to crop damage and water shortages, affecting agriculture-based livelihoods.
- **Landslides:** These are a natural vulnerability in the hilly terrain of the CHT.
- Other natural risks:
  - Rodent threats/Rat flood
  - Hailstorms
  - Heavy rainfall
  - Cyclone
  - Attack of birds in crops
  - Diseases in crops
  - Pest attack in crops

## 8.3. Livelihood Coping Strategies

Ethnic households in the CHT adopt various consumption coping strategies:

- **Dietary changes:** Relying on less expensive foods is a common strategy.
- **Borrowing food:** Households may borrow food to increase short-term availability.
- **Purchasing food on credit:** Buying food on credit helps manage immediate food needs.

- **Gathering wild food or hunting wild animals:** Utilizing natural resources to supplement food supplies.
- **Rationing strategies:**
  - Cutting the quantity of food per meal
  - Adults taking less food to feed small children
  - Reducing the number of meals eaten in a day
  - Spending an entire day without eating

## Session 9: Case Studies and Success Stories

### 9.1. Beekeeping

Beekeeping presents a **viable livelihood opportunity** in the Chittagong Hill Tracts (CHT).

- The Asiatic honeybee (*Apis cerana*) is indigenous to the CHT.
- ICIMOD initiated efforts to promote beekeeping, focusing on building capacities of partner institutions and potential beekeepers in bee management, honey production, and market linkages.
- Piloting beekeeping among local communities has been successful, with beekeepers producing approximately 5,000 to 7,000 kg of honey annually.
- Honey from the CHT sells at almost double the price of honey produced in the plains of Bangladesh.
- Beekeeping can increase incomes by up to 30% in project sites.
- In Khagrachari district, over 200 households keep bee colonies, with each hive producing up to 10 kg of honey a year.
- Honey is sold for BDT 700-1,000 per kg, earning each beekeeping household BDT 4,000-7,000 annually.
- Sumon Chakma, a successful beekeeper, earns over BDT 300,000 annually from beekeeping and also provides trainings, sells beehives and equipment.
- Chakma is the chairperson of the Khagrachari Beekeepers Association, supported by UNDP, and serves as an example of how beekeeping can be an effective livelihood option.

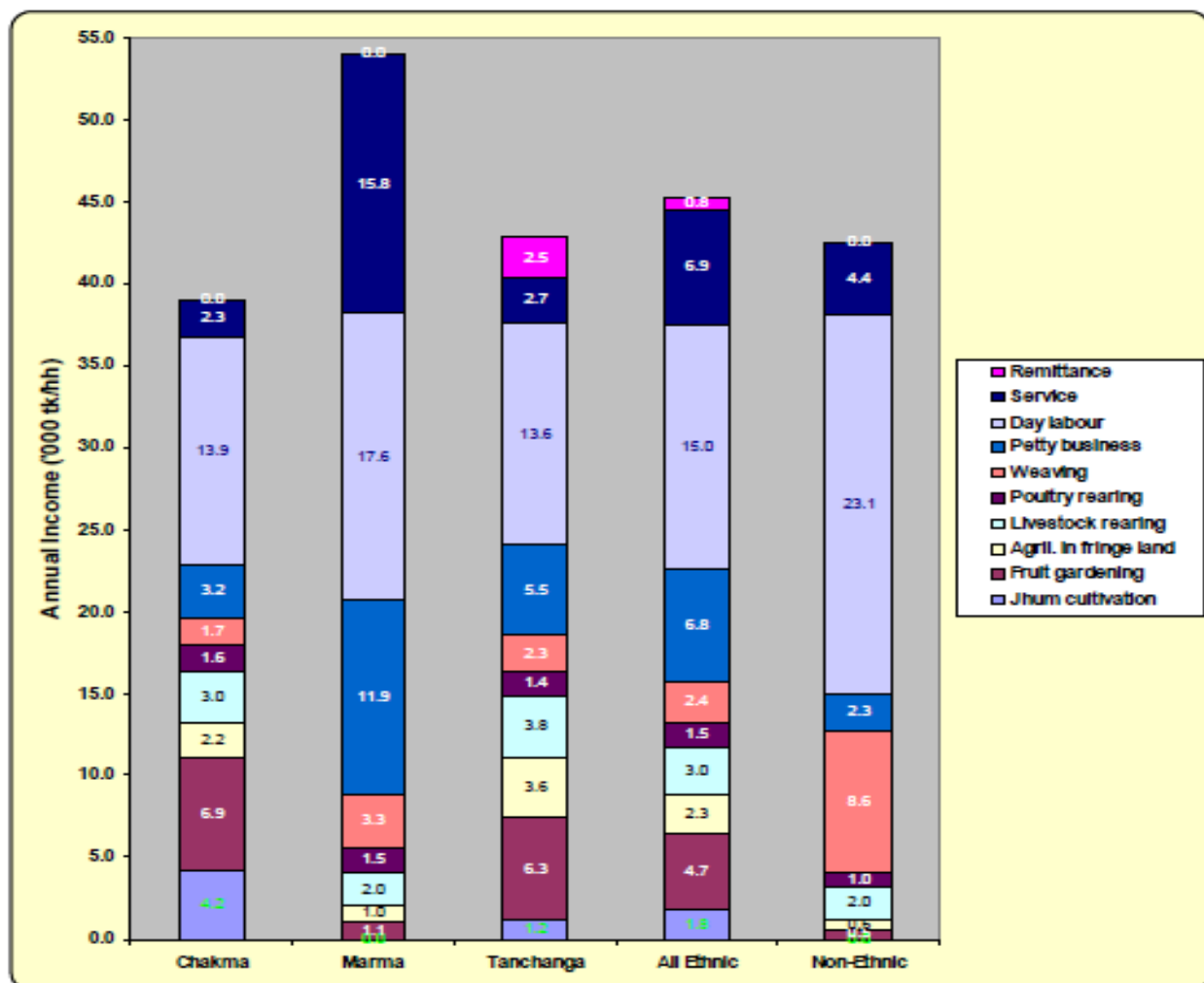


Figure 8: Annual income by sources among groups in Rangamati Hill District.

## 9.2. Mushroom Farming

Commercial mushroom cultivation is gaining popularity in Rangamati.

- More than a hundred farmers in four hamlets on the outskirts of Rangamati town are commercially cultivating mushrooms.
- The Rangamati Mushroom Centre (RMC) provides necessary support to boost mushroom production in the district.
- The Directorate of Agriculture Extension (DAE) in Rangamati provides training to farmers on proper cultivation techniques and assures marketing facilities.

Location/ Respondent type	Rice (ton/hh/yr)		
	Requirement	Availability from own production	Shortages
<i>Bandarban:</i>			
Chakma (33)	1.04	0.18 (17.3)	0.86 (82.7)
Marma (36)	1.53	1.10 (71.9)	0.43 (28.1)
Tanchanga (35)	1.59	0.54 (30.2)	1.05 (69.8)
Tripura (36)	1.57	0.56 (35.7)	1.01 (64.3)
Mro (38)	1.44	1.43 (87.2)	0.01 (14.0)
Bawm (36)	1.48	0.27 (14.2)	1.21 (85.6)
<i>All ethnic (214)</i>	<i>1.45</i>	<i>0.84 (48.3)</i>	<i>0.61 (51.7)</i>
<i>Non-ethnic (30)</i>	<i>1.19</i>	<i>0.014 (1.3)</i>	<i>1.18 (99.1)</i>
<i>Khagrachari:</i>			
Chakma (37)	1.19	1.34 (112.6)	0.67 (56.3)
Marma (36)	1.34	0.74 (55.2)	0.60 (44.8)
Tripura (33)	1.76	1.31 (59.5)	0.45 (40.5)
<i>All ethnic (106)</i>	<i>1.42</i>	<i>1.13 (61.1)</i>	<i>0.29 (38.9)</i>
<i>Non-ethnic (30)</i>	<i>0.98</i>	<i>0.35 (35.7)</i>	<i>0.63 (64.3)</i>
<i>Rangamati:</i>			
Chakma (36)	0.75	0.68 (90.7)	0.07 (9.3)
Marma (36)	0.83	0.12 (14.5)	0.71 (85.5)
Tanchanga (35)	0.80	0.43 (53.8)	0.37 (46.3)
<i>All ethnic (107)</i>	<i>0.79</i>	<i>0.41 (51.9)</i>	<i>0.38 (48.1)</i>
<i>Non-ethnic (30)</i>	<i>0.95</i>	<i>0.057 (8.8)</i>	<i>0.89 (90.8)</i>
<i>All:</i>			
<i>All ethnic (427)</i>	<i>1.26</i>	<i>0.79 (54.1)</i>	<i>0.49 (45.9)</i>
<i>Non-ethnic (90)</i>	<i>1.01</i>	<i>0.14 (15.4)</i>	<i>0.87 (84.5)</i>

Figures in the parentheses indicate percentage

### 9.3. Community-Based Fisheries Management (CBFM)

Community-Based Fisheries Management (CBFM) shows potential in managing the Kaptai reservoir.

- An integrated approach to reservoir management is essential to improve productivity, ensuring involvement of key stakeholders, particularly resource-poor fishermen.
- CBFM has been tested in Bangladesh with support from the World Fish Centre, international donor agencies, local NGOs, and community organizations since 1996.
- Key lessons from CBFM schemes include the necessity of communities obtaining rights over the fisheries, strong facilitation, visible resource management practices, homogeneous communities, and effective partnerships between NGOs and government.

- Surveys to generate information on the number of craft and type of gear used, mode of use, numbers of fishermen involved, catch per unit of effort, fish composition, and species diversity can be conducted at least every five years.
- **Stocking management** and **effective implementation of fishing regulations** are essential.
- Building partnerships, ensuring community participation, and providing extension services are important for CBFM success.

Groups	Level of food insecurity (% hh)			CSI statistics		
	High	Moderate	Low	CSI mean	Stdev	Range
<b>Bandarban:</b>						
Chakma (33)	45.5 (15)	42.4 (14)	12.1 (4)	57.0	13.2	26-76
Marma (36)	16.2 (6)	25.0 (9)	58.3 (21)	41.3	16.5	16-79
Tanchanga (35)	5.7 (2)	74.3 (26)	20.0 (7)	44.9	9.7	23-63
Tripura (36)	27.8 (10)	30.6 (11)	41.7 (15)	46.5	17.2	18-81
Mro (38)	20.1 (8)	31.6 (12)	47.4 (18)	42.2	17.2	23-82
Bawm (36)	33.3 (12)	50.0 (18)	19.4 (6)	51.8	12.5	29-78
<i>All ethnic (214)</i>	<i>25.0 (53)</i>	<i>42.3 (90)</i>	<i>33.2 (72)</i>	<i>47.4</i>	<i>14.4</i>	<i>22-77</i>
<i>All non-ethnic (30)</i>	<i>30.0 (9)</i>	<i>56.7 (17)</i>	<i>13.3 (4)</i>	<i>55.1</i>	<i>16.5</i>	<i>25-86</i>
<b>Khagrachari:</b>						
Chakma (33)	18.9 (7)	32.4 (12)	48.6 (18)	42.9	19.4	13-87
Marma (37)	33.3 (12)	27.3 (10)	38.9 (14)	45.9	18.1	12-42
Tripura (36)	21.1 (7)	24.2 (8)	54.5 (18)	43.0	18.8	6-91
<i>All ethnic (106)</i>	<i>24.5 (26)</i>	<i>28.2 (30)</i>	<i>47.4 (50)</i>	<i>43.9</i>	<i>18.8</i>	<i>6-91</i>
<i>All non-ethnic (30)</i>	<i>33.3 (10)</i>	<i>23.3 (7)</i>	<i>43.3 (13)</i>	<i>37.8</i>	<i>17.9</i>	<i>4.5-66</i>
<b>Rangamati:</b>						
Chakma (36)	38.4 (14)	25.0 (9)	36.1 (13)	46.5	28.0	2-108
Marma (36)	5.7 (2)	31.4 (11)	62.8 (22)	36.8	14.0	12-81
Tanchanga (35)	27.8 (10)	47.2 (17)	25.0 (9)	47.2	21.5	8-96
<i>All ethnic (107)</i>	<i>24.1 (26)</i>	<i>34.5 (37)</i>	<i>41.3 (44)</i>	<i>43.5</i>	<i>21.1</i>	<i>11-95</i>
<i>All non-ethnic (30)</i>	<i>53.3 (16)</i>	<i>30.0 (9)</i>	<i>16.7 (5)</i>	<i>57.0</i>	<i>16.9</i>	<i>25-86</i>
<b>All:</b>						
<i>All ethnic (427)</i>	<i>24.5 (105)</i>	<i>36.7 (157)</i>	<i>38.8 (166)</i>	<i>45.8</i>	<i>16.6</i>	<i>18 - 81</i>
<i>All non-ethnic (90)</i>	<i>46.7 (42)</i>	<i>27.8 (25)</i>	<i>25.6 (23)</i>	<i>50.6</i>	<i>17.3</i>	<i>18 - 79</i>

Note: Highly insecure (CSI score <60); moderately insecure (CSI score 40-60) and low insecure (CSI score >40)  
Figure in the parentheses indicates number of household, Source: Field Survey, 2009

## Session 10: Policy and Institutional Framework

### 10.1. Strengthening Community Organizations

Supporting **community-based organizations** is crucial for sustainable management and conservation efforts in the Chittagong Hill Tracts (CHT). A management strategy should specify the interactions between forests, communities, government, and non-government organizations for sustainable management of community resources.

Important conservation strategies are being developed in many countries to link community development and natural resources management and conservation.

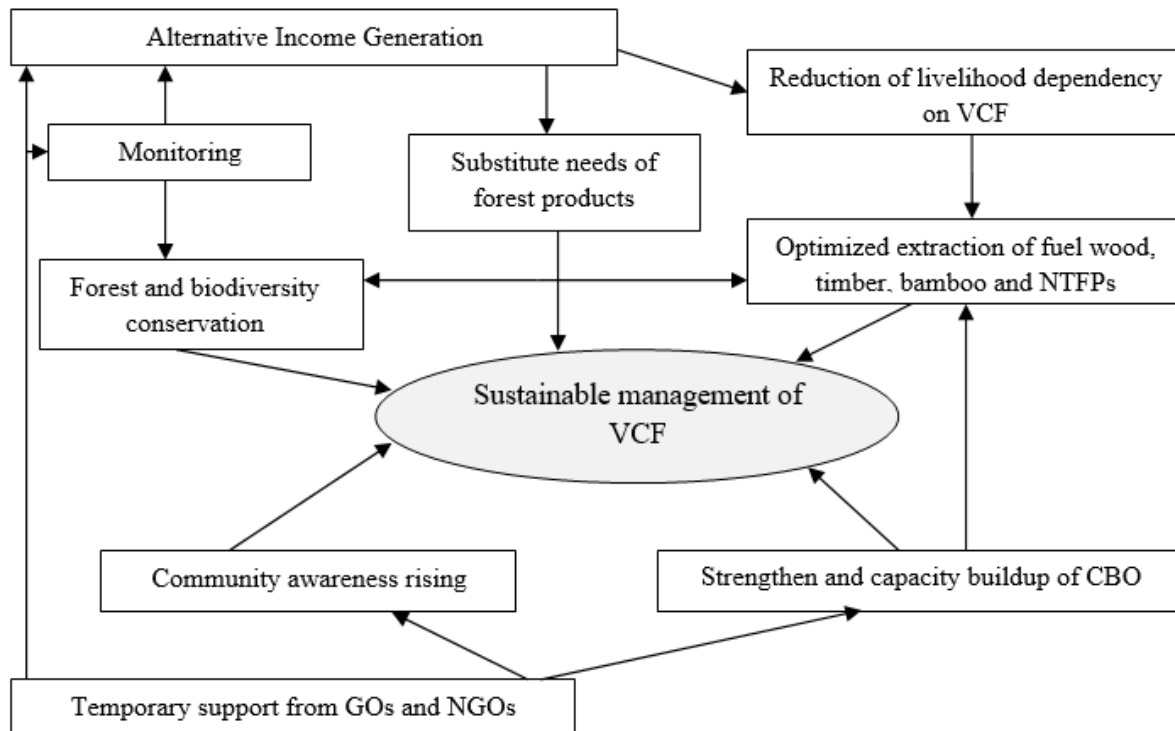


Figure 9: A conceptual framework for sustainable community-based management of village common forests.

## 10.2. Government and NGO Collaboration

Support from **government, non-government, and donor agencies** is essential for achieving sustainable Village Common Forest (VCF) management. This support can take the form of alternative income-generating activities, strengthening community organizations, raising community awareness, and substituting forest goods. Collaboration between these entities can ensure appropriate cost-benefit sharing arrangements, empowerment of resource users, and equitable and sustainable management efforts.

## 10.3. Legislative Policy for Kaptai Reservoir

Addressing the **lack of a legislative policy framework** for the protection and conservation of aquatic resources in the Kaptai reservoir is urgently needed. An integrated approach to reservoir management is essential to improve the productivity of this reservoir. Community-based fisheries management (CBFM) is a possible solution. Effective partnerships between NGOs and government are sufficiently beneficial. Sound management practices should be based on scientific evidence and factual data. Surveys to generate information on the number of craft and type of gear used, mode of use,

numbers of fishermen involved, catch per unit of effort, fish composition and species diversity, can be conducted at least every five years.

## Session 11: Conclusion

### Summary of Key Points

**Climate-resilient livelihoods** and **Locally Led Adaptation (LLA)** are crucial for sustainable development in the Chittagong Hill Tracts (CHT). LLA recognizes the value of local knowledge and expertise in addressing climate risks, ensuring that local actors have equitable access to power and resources to build resilience. The CHT is identified as one of the most climate-vulnerable districts in Bangladesh and a climate hotspot in South Asia. Climate change is estimated to cause a decline in living standards and can exacerbate conflicts over resources. Strengthening climate-resilient livelihoods involves increasing adaptive capacity and building climate resilience through awareness, joint community efforts, traditional knowledge, integrated farm management, and diversification.

### Recommendations

To enhance climate resilience and promote sustainable livelihoods in the CHT, the following actionable recommendations are suggested for policymakers and communities:

- **Promote diversified agriculture:** Market agriculture as varied, resilient, and nutrition-sensitive. Encourage the cultivation of high-value crops, spices, and Neglected and Underutilized Species (NUS) to enhance income and environmental sustainability. Adopt climate-smart agricultural practices such as crop rotation, intercropping with legumes, and the use of drought-resistant and pest-tolerant varieties.
- **Invest in agroforestry and horticulture:** Support the rising trend towards fruit and vegetable cultivation to reduce dependency on imports. Improve marketing facilities, transportation, and secure tenure rights for fruit orchards and agroforestry systems.
- **Develop non-farm-based livelihood opportunities:** Promote handicrafts and tourism by leveraging the rich cultural heritage and natural beauty of the CHT. Provide training and skills development to engage tribal people in agro-processing industries.
- **Strengthen community-based natural resource management:** Support community-based organizations and promote community forestry models. Ensure the protection of forests for sustainable development and explore participation in carbon trading schemes. Implement Community-Based Fisheries Management

(CBFM) in the Kaptai reservoir, ensuring community rights over fisheries and strong facilitation.

- **Enhance access to financial resources:** Improve access to formal financial services and microfinance institutions for tribal communities. Ensure that financial resources are utilized effectively to support business startups, education, healthcare, and asset investment.
- **Improve physical infrastructure and market access:** Upgrade road networks and reduce transportation costs to facilitate economic activities and marketing of agricultural products. Establish processing plants and storage facilities to reduce post-harvest losses and add value to agricultural produce.
- **Address climate change and water scarcity:** Implement rainwater irrigation systems and promote efficient water management practices. Combat deforestation and soil erosion to improve water retention and groundwater recharge.
- **Promote education and awareness:** Raise awareness at every level—from households to community leaders—about climate change and sustainable practices. Provide education and vocational skills to enhance employment opportunities outside the region and promote livelihood diversification.
- **Foster policy and institutional support:** Develop a management strategy that specifies the interactions between forests, communities, government, and non-government organizations. Ensure temporary support from government, non-government, and donor agencies in the form of alternative income-generating activities, strengthening community organizations, raising community awareness and substituting forest goods.
- **Implement social protection systems:** Establish comprehensive social protection systems to address food insecurity and ensure that no one is left behind. Recognize and support the critical roles of women in ensuring long-term food security and nutrition.

By implementing these recommendations, policymakers and communities can work together to build climate-resilient livelihoods, promote sustainable development, and ensure a secure and prosperous future for the Chittagong Hill Tracts.



## **| Module 2: Introduction to Locally Led Adaptation (LLA)**

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## Section 1: Overview of the Training Module

### 1.1 Brief Introduction to the Module

Rawnak Jahan Khan Ranon, Research Officer at International Center for Climate Change and Development (ICCCAD), will be the lead facilitator of this particular session.

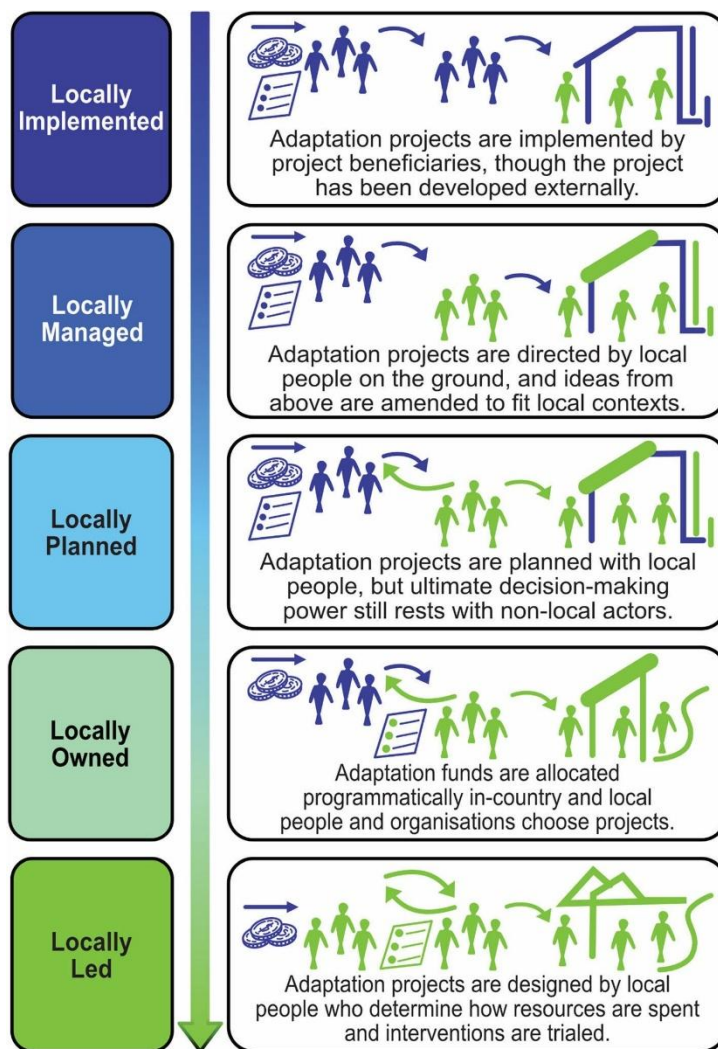
	Tutor	Rawnak Jahan Khan Ranon
	Subject	Introduction to Locally Led Adaptation (LLA)
	Time	This training session will be almost an hour.
	Learning Outcomes	
	Materials used	Desktop/laptop Multimedia projector PowerPoint Presentation
	Topics	•

## Section 2: Introduction

### 2.1. What is Locally Led Adaptation (LLA)

Locally Led Adaptation (LLA) is a community-centered approach to addressing climate change by empowering local actors, including communities, subnational governments, businesses, civil society, and households, to make decisions about how and where to adapt to climate risks. Simply, LLA is a way of tackling climate change by giving power to local communities. It allows people who are directly affected by climate change to decide how to adapt to it. LLA values the knowledge and experience of local people and makes sure they have fair access to resources. It transfers control of adaptation decisions and funding to communities and local organizations.

Locally Led Adaptation (LLA) aligns with the broader concept of Locally Led Development (LLD) as defined by the U.S. Agency for International Development (USAID). In both approaches, local actors take the lead in setting priorities, designing strategies, and implementing solutions based on their specific needs and contexts. LLA goes beyond external top-down approaches by ensuring that local people and institutions are at the center of decision-making processes, allowing them to take ownership of climate adaptation efforts. Feisal Rahman (Rahman et al. 2023) has updated the idea of locally led adaptation projects from that of USAID, shown in **(Figure 1)**. The figure shows the differences between projects that are more locally led and those that are less locally led. An arrow points to the projects that are more led by local people. Projects at the top of the figure are more top-down, where decisions are made by project leaders, and local people have less say. Projects at the bottom focus more on including local people and making sure they are involved in decision-making. This distinction showcases the varying degrees of local engagement and control in adaptation initiatives, with more locally led projects giving greater power and decision-making authority to the communities most affected by climate change.



**Figure 1** | Illustration of levels of local participation in adaptation projects, ranging from Locally Implemented to Locally Led, highlighting increasing degrees of local control and decision-making in project design, management, and execution.

## **Section 3: Necessity for Locally Led Adaptation (LLA)**

### **3.1. The Early Years: Pre-1990s and the Genesis of Global Climate Dialogue**

Climate change poses serious threats to Bangladesh, a low-lying delta country highly exposed to extreme weather. Rising temperatures, intense cyclones, flooding, and sea level rise are reshaping the landscape, affecting millions. These challenges disrupt communities, damage infrastructure, and threaten livelihoods, making climate adaptation urgent for Bangladesh's future. Locally led adaptation is thus a crucial aspect in Bangladesh because each community faces unique climate hazards. These include cyclones, flooding, and rising sea levels, all of which need specific solutions. Local knowledge and participation make responses to these risks more effective. Communities understand their own vulnerabilities and can adapt quickly to changes. This approach also gives locals control, so resources go directly to those who need them most. As a result, locally led adaptation helps build resilience and supports sustainable development amid growing climate challenges.

The National Adaptation Plan of Bangladesh (MoEFCC 2022) identifies several significant climate change hazards affecting the country. These include variability in rainfall, river floods, flash floods, urban floods, sea-level rise, salinity, cyclonic storm surges, droughts, extreme heatwaves, extreme cold, riverbank erosion, lightning, landslides, higher sea surface temperatures, and ocean acidification. Below is a summary of these climate challenges.



**Figure 2 |** Key climate-related hazards in Bangladesh, including tropical cyclones, sea level rise and salinity intrusion, intense flooding, heatwaves and drought, and lightning and landslides, highlighting their impacts on communities, agriculture, infrastructure, and livelihoods.

## 3.2. Community Based Adaptation (CBA) VS Locally Led Adaptation (LLA)

With climate change impacts intensifying worldwide, Bangladesh faces particular risks, making effective adaptation essential. Locally Led Adaptation (LLA) offers a practical approach by involving communities directly in decision-making, not just participation, unlike Community-Based Adaptation (CBA). While CBA allows community input, it often depends on outsiders who may implement projects without fully understanding local needs. LLA, however, makes sure local voices shape and lead solutions.

Community-Based Adaptation (CBA) has helped raise awareness of climate risks in Bangladesh, but it has notable limitations in effectively addressing the full scope of these challenges:

- **Limited Decision-Making Power:** CBA primarily involves community members in a consultative role, but external actors often control key decisions. This restricts communities' ability to tailor solutions to their specific needs and circumstances.
- **Fragmented Approach:** CBA often focuses on individual communities without considering the broader geographic and socio-economic context. This narrow focus can overlook interconnected climate impacts, which frequently extend across multiple communities and ecosystems.

- **Inadequate Inclusivity:** CBA may not fully address inequalities within communities. Vulnerable groups, like women, marginalized individuals, and the poor, may have limited participation or influence in planning, leading to adaptation solutions that don't fully reflect diverse needs.
- **Sustainability Challenges:** Because CBA projects often rely on external funding and expertise, they may struggle to sustain adaptation measures once external support ends. This limits communities' capacity to continue managing climate risks independently.
- **Overreliance on External Knowledge:** CBA can impose externally developed solutions that may not align with local practices or cultural values, leading to low acceptance and effectiveness. Without integrating indigenous knowledge, projects may miss valuable insights and community buy-in.

Locally Led Adaptation (LLA) addresses these gaps by giving communities more decision-making power, promoting inclusivity, and focusing on scalable solutions that incorporate diverse knowledge, ensuring sustainable and resilient adaptation in Bangladesh. LLA also considers a broader area and includes different groups within each community, making strategies more relevant to local needs and cultures. By working closely with local institutions and individuals, LLA builds lasting solutions, empowering communities to manage climate change challenges with approaches they control and understand. This approach helps ensure that adaptation efforts are sustainable and tailored to the specific needs of each community, allowing Bangladesh to address climate challenges effectively and build resilience from the ground up (MSC 2024).

## Section 4: Principles of Locally Led Adaptation (LLA)

With climate impacts worsening, it's crucial that vulnerable communities have the resources and power to strengthen their resilience. Effective adaptation must be based on local climate knowledge and give communities control over their own resilience-building efforts. Yet, most climate adaptation decisions are made at international or national levels, leaving only a small portion of funding for local actors who need it the most. Understand these gaps the LLA has been evolved with 8 fundamental principles,

1. **Devolving Decision-Making to the Lowest Appropriate Level:** Grants local actors more control over funding, planning, and implementation of climate adaptation projects, ensuring decisions are made close to the affected communities.
2. **Addressing Structural Inequalities:** Ensures that adaptation efforts consider the needs of marginalized groups, including women, youth, Indigenous Peoples, and people with disabilities, promoting inclusive participation.
3. **Providing Patient and Predictable Funding:** Emphasizes long-term, accessible, and flexible funding to enable local actors to effectively plan, manage, and sustain adaptation activities over time.



4. **Investing in Local Capabilities:** Focuses on building local institutions' skills and resources, ensuring they can independently continue adaptation efforts and leave a lasting impact.
5. **Building a Robust Understanding of Climate Risk and Uncertainty:** Combines scientific and local knowledge to better understand climate risks, enabling locally relevant adaptation strategies.
6. **Flexible Programming and Learning:** Supports adaptive management to allow projects to adjust to changing needs and learn from ongoing experiences.
7. **Ensuring Transparency and Accountability:** Promotes transparent processes and accountability in funding and project delivery to build trust and engagement with local stakeholders.
8. **Collaborative Action and Investment:** Encourages partnerships across sectors and levels to maximize resources, avoid duplication, and strengthen collective adaptation efforts.

## **| Module 3: Fundamentals of Resource Mobilization**

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## Section 1: Overview of the Training Module

### 1.1 Brief Introduction to the Module

S.M. Saify Iqbal, Programme Coordinator at International Center for Climate Change and Development (ICCCAD), will be the lead facilitator of this particular session.

	Tutor	S.M. Saify Iqbal
	Subject	Fundamentals of Resource Mobilization
	Time	This training session will be almost an hour.
	Learning Outcomes	The expected outcome for this module is to enhance participants' knowledge and skills in <b>resource mobilization</b> , enabling them to <b>acquire, manage, and utilize resources</b> effectively for achieving specific objectives. Participants will also learn to identify and <b>overcome barriers</b> to resource mobilization, fostering <b>community-driven</b> and <b>sustainable climate resilience</b> .
	Materials used	Desktop/laptop Multimedia projector PowerPoint Presentation
	Topics	<ul style="list-style-type: none"> <li>• Money or Cash</li> <li>• Technical Assistance</li> <li>• Human Resources</li> <li>• Physical Goods</li> <li>• Free Services and Facilities</li> <li>• Technological Resources</li> <li>• Communication Resources</li> <li>• Partnerships and Collaboration</li> </ul>

## Section 2: Introduction

### 2.1. What is Resource Mobilization

Resource mobilization is the process by which an organization acquires and manages the financial, human, and logistical resources it needs to achieve its mission. It refers to all activities involved in securing new and additional resources for the organization, as well as optimizing and maximizing the use of existing resources. More than simply fundraising, resource mobilization is a comprehensive management approach often referred to as “New Business Development,” as it encompasses strategies to build support beyond traditional donations. This process involves identifying individuals and organizations who share the organization’s values and building lasting relationships with them. While fundraising is one part, resource mobilization also focuses on connecting with potential supporters, gaining their trust, and encouraging them to support the organization’s mission (Seltzer, 2014).

### 2.2. Importance of Resource Mobilization

Resource mobilization involves obtaining resources from providers through various methods to achieve an organization’s set objectives. This process focuses on acquiring essential resources in a timely and cost-efficient way. Effective resource mobilization ensures that the organization has the right resources at the right time and cost, while also making the best use of these resources to maximize their impact. It encompasses all activities aimed at securing new and additional resources for the community.

The importance of resource mobilization can be further highlighted through these key points:

- **Addressing Social Issues:** For nonprofits and development projects, resource mobilization is crucial for funding programs that tackle issues like poverty, education gaps, healthcare disparities, and environmental challenges.
- **Adaptability and Resilience:** Organizations often face unexpected changes. Resource mobilization provides the flexibility needed to adapt to new challenges, helping them stay resilient.
- **Sustainability:** Securing adequate resources ensures that organizations can maintain operations and respond to changing circumstances, supporting long-term sustainability.
- **Employee Satisfaction and Retention:** In businesses, effective resource mobilization equips employees with the tools and support they need, enhancing job satisfaction and retention.

These factors underscore how resource mobilization supports an organization’s growth, adaptability, and positive impact.

## Section 2: Types of Resource Mobilization

Resource mobilization involves various methods that organizations use to secure essential resources for their goals. These resources provide financial support, skilled personnel, technological tools, and strategic partnerships, all crucial for effective operations. By mobilizing these resources, organizations are better equipped to fulfill their mission successfully. First, **Money or Cash** is needed to fund programs, pay salaries, and support new activities. This money can come from grants, donations, membership fees, or local community contributions. **Technical Assistance** means getting expert help from skilled people for specific projects or training. **Human Resources** are the people who work for the organization, including regular staff and volunteers who help out as needed. **Physical Goods** are items like office equipment, furniture, training materials, and vehicles that help the organization do its daily work. Lastly, **Free Services and Facilities** are services like computer use, internet, or photocopying that other organizations or community members may provide at little or no cost to help the organization save money. Together, these resources make it possible for an organization to operate effectively and serve the community.

All these resources described above can be categorized as by the following,

- **Financial Resources:** Securing funds from diverse sources, including donors, grants, loans, and revenue from services or sales. These financial resources form the backbone of project funding and enable organizational sustainability.
- **Human Resources:** Mobilizing talent by recruiting, training, and retaining skilled individuals. Human resources provide the expertise and workforce necessary to carry out an organization's activities effectively.
- **Technological Resources:** Encompassing equipment, technology, and infrastructure, these tangible resources support efficient operations and allow organizations to adopt innovative solutions in their work.
- **Communication Resources:** Utilizing digital platforms and social media for campaigns, crowdfunding, and community engagement. These resources help organizations reach broader audiences, raise awareness, and increase support.
- **Partnerships and Collaboration:** Engaging external entities, forming alliances, and working with stakeholders. Partnerships enhance resource mobilization by allowing organizations to share resources and expertise, strengthening their efforts and expanding their impact.

## Section 3: Approaches of Resource Mobilization

Resource mobilization is crucial for ensuring an organization's sustainability, growth, and ability to deliver quality services. It ensures that businesses have the necessary resources to meet customer demands, maintain regular operations, and respond to unforeseen challenges. With adequate resources, organizations can focus on product and service improvement, fostering innovation. Moreover, effective resource mobilization supports expansion by enabling new product development and customer acquisition. Adopting diverse approaches, such as donor management, communication strategies, and innovation, is essential for building a robust resource mobilization strategy that ensures long-term success and adaptability in changing environments (Indeed, 2024). Below some of the approaches for resource mobilization are given,

- **Diversification of Funding Sources:** Organizations should seek support from various channels like government grants, private donations, corporate sponsorships, and earned income to reduce dependency on a single source.
- **Strategic Partnerships:** Building partnerships with other organizations, businesses, government agencies, and community groups can enhance resource mobilization through shared resources, knowledge, and networks.
- **Community Engagement:** Engaging the local community by building relationships, understanding local needs, and involving community members in decision-making processes can lead to increased support and resources.
- **Capacity Building:** Developing the internal capacity of an organization by investing in staff training, infrastructure, and systems ensures efficient resource utilization and adaptability to changing circumstances.
- **Advocacy and Communication:** Advocacy raises awareness and attracts support, while effective communication showcases impact. Engaging stories and visuals build trust and inspire donors, partners, and the public to support the organization's mission.
- **Innovation and Adaptability:** Embracing innovation enables organizations to adopt digital tools, fundraising trends, and emerging funding models, keeping them agile in resource mobilization and responsive to evolving donor expectations.
- **Donor Relationship Management:** Building trust through transparency, impact reporting, and personalized engagement strengthens long-term donor relationships, fostering loyalty and enhancing sustained support.
- **Income-Generating Activities:** Sustainable income from social enterprises or services reduces funding dependency, supports financial stability, and aligns with mission-driven goals while reinvesting revenue into organizational priorities.

## Section 4: An Introduction to Climate Finance

In order to ensure that resources are raised to support both mitigation and adaptation efforts, climate financing is a crucial component of the global effort to combat climate change. Important international accords such as the Paris Agreement, the Kyoto Protocol, and the United Nations Framework Convention on Climate Change (UNFCCC) all incorporate this idea. These frameworks, which highlight financial assistance from developed to underdeveloped countries, represent differences in responsibility and ability to address the effects of climate change.

Recognizing the disparity in duty and ability across countries to address the effects of climate change, climate finance has become a key component of global efforts to combat it. Three major international frameworks—the Paris Agreement, the Kyoto Protocol, and the United Nations Framework Convention on Climate Change (UNFCCC)—are the cornerstones of climate finance. Together, these accords highlight how wealthier countries can provide financial support to others who are less prepared to face the difficulties posed by climate change.

### 4.1. The Early Years: Pre-1990s and the Genesis of Global Climate Dialogue

Long before the phrase was commonly used, the groundwork for climate finance was established. Environmental issues, especially the greenhouse effect and its consequences for global warming, started to gain international attention in the 1980s. However, climate change was not officially acknowledged as a major worldwide issue until the Intergovernmental Panel on Climate Change (IPCC) was established in 1988.

By the early 1990s, world leaders convened in Rio de Janeiro in 1992 for the Earth Summit. The United Nations Framework Convention on Climate Change (UNFCCC), a convention intended to lower global greenhouse gas emissions, was created as a result of the meeting. Since industrialized nations have made the largest contributions to global emissions, the UNFCCC established the fundamental tenet that they should set the example for emission reduction and assist developing nations in mitigating and adapting to climate change (UNCC, n.d.).

### 4.2. The 1990s: Initial Climate Finance Discussions

The 1997 adoption and 2005 implementation of the Kyoto Protocol represented a significant advancement in the development of climate finance instruments. Under Kyoto, industrialized nations committed to give developing countries financial support through the Global Environment Facility and were given legally enforceable commitments to cut greenhouse gas emissions (GEF).

One of the earliest organizations to channel climate financing was the GEF, which was founded in 1991. It first provided funding for environmental conservation initiatives pertaining to climate change, ozone depletion, and biodiversity. Its sponsorship for



climate-related programs grew over time, particularly as global concern over climate change increased.

### **4.3. The 2000s: The Evolution of Financing Mechanisms**

The debate over climate funding heated up in the early 2000s. The Clean Development Mechanism was introduced in the 2001 Marrakech Accords, which are a component of the continuing discussions of the UNFCCC (CDM). By funding initiatives that decreased emissions in developing nations, the CDM enabled developed nations to accomplish their emission reduction goals while fostering environmental sustainability and economic growth.

Climate financing acquired increased attention in international policy circles as the science supporting climate change grew stronger and the effects of the phenomenon became more evident. International financial organizations, including the World Bank, started to increase their investments in climate-related projects. The creation of the World Bank's Climate Investment Funds (CIFs) in 2008 significantly accelerated funding for adaptation and mitigation of climate change (UNFCCC, 2024).

### **4.4. The 2010s: The Paris Agreement and the Green Climate Fund**

The 2015 Paris Climate Conference (COP21), when almost all nations in the world ratified the Paris Agreement, was a turning point for climate finance. With attempts to keep the increase to 1.5°C, the Agreement seeks to keep global warming to less than 2°C. The financial pledge made by affluent nations to raise \$100 billion annually by 2020 to fund climate action in developing countries was a crucial component of the Paris Agreement. With a focus on vulnerable and least-developed nations, this money was meant for both adaptation and mitigation initiatives.

The UNFCCC created the Green Climate Fund (GCF) in 2010 to oversee and allocate these monetary resources. The GCF emerged as the primary worldwide fund for aiding developing nations' climate adaptation and mitigation initiatives. The GCF has attempted to direct funding flows from rich to developing countries in order to assist national climate action plans, with the goal of ensuring a balance between adaptation and mitigation (UNFCCC, 2024).

## Section 4: Barriers to Resource Mobilization

### 4.1. What is Barrier to Resource Mobilization?

Barriers to resource mobilization refer to the obstacles that impede the process of acquiring, managing, and utilizing financial, technical, and institutional resources necessary for achieving specific objectives. In the context of climate fund projects, these barriers may include funding shortages, insufficient technical expertise, institutional inefficiencies, and restrictive policies that prevent equitable and sustainable resource allocation.

Resource mobilization is essential for any organization or initiative striving to implement meaningful projects and achieve long-term objectives. However, several barriers can impede the efficient acquisition and use of resources. These barriers exist across financial, technical, institutional, and systemic dimensions. Limited funding, lack of technical expertise, inefficient governance, and restrictive policies are some of the common challenges that organizations face when attempting to mobilize resources.

### 4.2. Common Barriers to Resource Mobilization

Resource mobilization is essential for any organization or initiative striving to implement meaningful projects and achieve long-term objectives. However, several barriers can impede the efficient acquisition and use of resources. These barriers exist across financial, technical, institutional, and systemic dimensions. Limited funding, lack of technical expertise, inefficient governance, and restrictive policies are some of the common challenges that organizations face when attempting to mobilize resources.

These barriers are particularly pronounced in sectors like climate action, where the scope of interventions often demands significant financial investment and advanced technical capacity. Inadequate local access to resources can delay projects, reduce their effectiveness, or lead to complete project failure. Organizations may also face competition for limited funding opportunities or struggle to align with donor priorities and requirements.

Addressing barriers to resource mobilization requires a strategic approach, combining capacity building, fostering partnerships, and simplifying access to resources. By tackling these challenges, organizations can ensure efficient allocation and utilization of resources, ultimately supporting their mission and achieving broader goals. Some major barriers to resource mobilization are given below,

- i. **Limited Financial and Technical Capacity:** It mainly refers to the inability of local entities, especially in developing regions, to secure and utilize resources effectively for climate projects. It highlights deficiencies in both financial resources

and the technical skills required for planning, implementing, and sustaining such initiatives.

- a. **Financial Capacity:** The funds necessary to initiate, manage, or sustain climate projects. This includes both access to initial capital and ongoing operational budgets.
- b. **Technical Capacity:** The knowledge, expertise, and infrastructure to design projects that align with donor expectations, meet compliance standards, and deliver measurable outcomes (CPI 2023).
- ii. **Inability to Access Debt Instruments:** Subnational governments often cannot borrow funds directly due to regulatory restrictions or inadequate creditworthiness. This dependency on public finance limits their ability to tap into private or international resources (NDC Partnership 2023).
- iii. **Creditworthiness:** Creditworthiness is the ability of a government or organization to show that it can pay back loans and handle financial responsibilities on time. It is measured through credit ratings, which act like a financial report card. These ratings consider factors such as how well the organization manages its money, how much debt it has, and how stable and trustworthy it is. A high credit rating tells lenders and investors that the organization is reliable and unlikely to miss payments. This makes it easier for the organization to borrow money or get funding from both public and private sources.
- iv. **Unequal Resource Distribution:** Large cities frequently dominate the allocation of international climate finance, leaving smaller municipalities with insufficient funding for sustainability projects
- v. **Policy and Institutional Barriers:** Weak or misaligned national policies, unclear regulations, and lack of coordination between different levels of government create bottlenecks for mobilizing resources
- vi. **High Transaction Costs:** Administrative burdens and complex funding processes discourage local entities from pursuing international or private finance sources
- vii. **Private Sector Hesitancy:** Low private sector investment in climate adaptation is often due to a lack of incentives, unclear returns on investment, and minimal support for risk-sharing mechanisms. This hesitancy limits the availability of private capital for local climate projects (World Bank, 2021)

## Section 5: Strategies to overcome these barriers

Effective methods for removing obstacles in the mobilization of resources for climate projects are essential for allowing local organizations to obtain funds and carry out meaningful projects. Issues including inadequate local involvement, complicated financing processes, and limited technical and financial competence are addressed by these tactics. In order to overcome obstacles and unlock resources more efficiently, local bodies should prioritize capacity building, streamline financing access, and encourage cooperative alliances. Trust between funders and stakeholders is also increased by promoting accountability and transparency through solid data and analytics. In addition to improving resource availability, these strategies guarantee community-driven and sustainable climate resilience. A list of approaches to overcome barriers are given below,

- i. **Capacity Building:** Giving local organizations institutional assistance and technical training can improve their capacity to plan and oversee climate programs successfully. Enhancing project proposals and management requires fostering local expertise through workshops and collaborations with global organizations (IIED, 2021).
- ii. **Simplifying Access to Finance:** Access to resources for local actors can be enhanced by streamlining application procedures and developing focused funding arrangements. By creating decentralized finance models or localized climate funds, bureaucratic barriers are removed and monies are made available to the most underserved populations.
- iii. **Strengthening Policy and Governance:** A more favorable atmosphere for resource mobilization can be produced by establishing regulations that support local leadership and decentralized decision-making in climate adaptation initiatives. Coordination between various governmental levels and stakeholders is enhanced by strengthening governance mechanisms.
- iv. **Leveraging Public-Private Partnerships:** Resources can be mobilized by promoting private investment through tax breaks, subsidies, and well-defined regulations. Because public-private partnerships facilitate risk sharing and skill pooling, private investors find climate projects more appealing.
- v. **Enhancing Accountability and Transparency:** Building inclusive decision-making procedures and transparent financial tracking tools can increase stakeholder trust. Greater accountability guarantees efficient use of funds, which attracts more investors and funders to support regional initiatives.
- vi. **Promoting Flexible Funding Mechanisms:** Promoting adaptability in the use of funds enables local actors to distribute resources in response to changing requirements. Adaptability and effectiveness are increased by flexible and iterative project design and monitoring methodologies, which guarantee that climate interventions continue to be significant and applicable.

- vii. **Establishing Multi-Stakeholder Platforms:** Governments, funders, non-governmental organizations, and corporate organizations can coordinate activities, cut down on duplication, and maximize resource utilization for climate adaptation by establishing collaborative platforms. These platforms help stakeholders share resources and coordinate more effectively.

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**| Module 4: Climate Change In CHT. Everybody Know,  
but Nobody Understands!**







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## Section 1: Overview of the Training Module

### 1.1 Brief Introduction to the Module

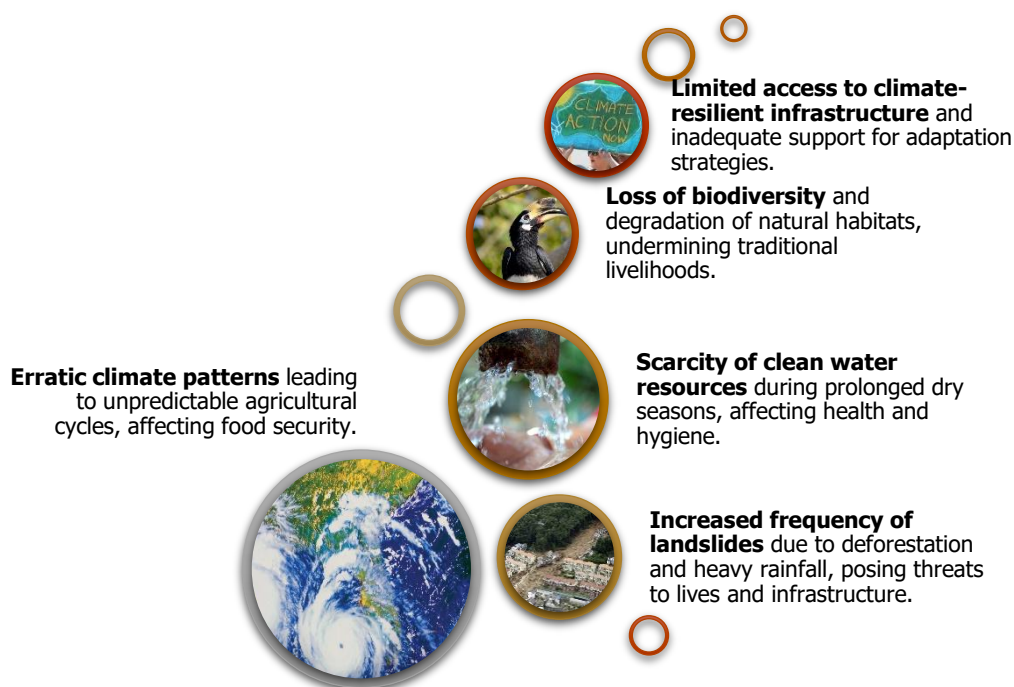
Dr. Suprio Chakma, Assistant Professor, RCTU will be the lead facilitator of this particular session.

	Tutor	Dr. Suprio Chakma
	Subject	Fundamentals of Resource Mobilization
	Time	This training session will be almost an hour.
	Learning Outcomes	By the end of this module, learners will understand the climate vulnerabilities of the Chittagong Hill Tracts (CHT), the unique challenges faced by Indigenous communities, and the impacts of climate change on their livelihoods. They will be able to identify key environmental and socio-political issues, analyze case studies on water scarcity and unplanned development, and explore integrated watershed management and adaptation strategies to enhance climate resilience in the CHT region.
	Materials used	Desktop/laptop Multimedia projector PowerPoint Presentation
	Topics	<ul style="list-style-type: none"> <li>• Overview of Chittagong Hill Tracts and Climate Vulnerability</li> <li>• Indigenous People and Their Vulnerability in CHT</li> <li>• Who Are Indigenous People in CHT?</li> <li>• Climate Change and the Chittagong Hill Tracts</li> <li>• Specific Climate Change Impacts in CHT</li> <li>• Current Vulnerabilities in the CHT (Case Studies)</li> <li>• Enhancing Climate Resilience through Integrated Watershed Management and Adaptation Strategies</li> </ul>

## Section 2: Introduction

### 2.1. Overview of Chittagong Hill Tracts and climate vulnerability

Climate change poses a critical challenge worldwide, with significant consequences for society, economy, and politics, particularly in developing countries like Bangladesh. Over recent decades, Bangladesh has seen a marked rise in extreme weather events, including cyclones, floods, rising sea levels, and erratic rainfall, which disproportionately affect vulnerable communities. The Chittagong Hill Tracts (CHT), comprising the districts of Rangamati, Bandarban, and Khagrachari, is a geographically distinct and culturally rich region of Bangladesh. Known for its diverse ecosystems and Indigenous communities, this region has been increasingly vulnerable to the effects of climate change such as erratic climate patterns, environmental degradation, and socioeconomic disparities, which are compounding the challenges faced by this region. The key vulnerabilities faced by the Indigenous communities in the CHT include:



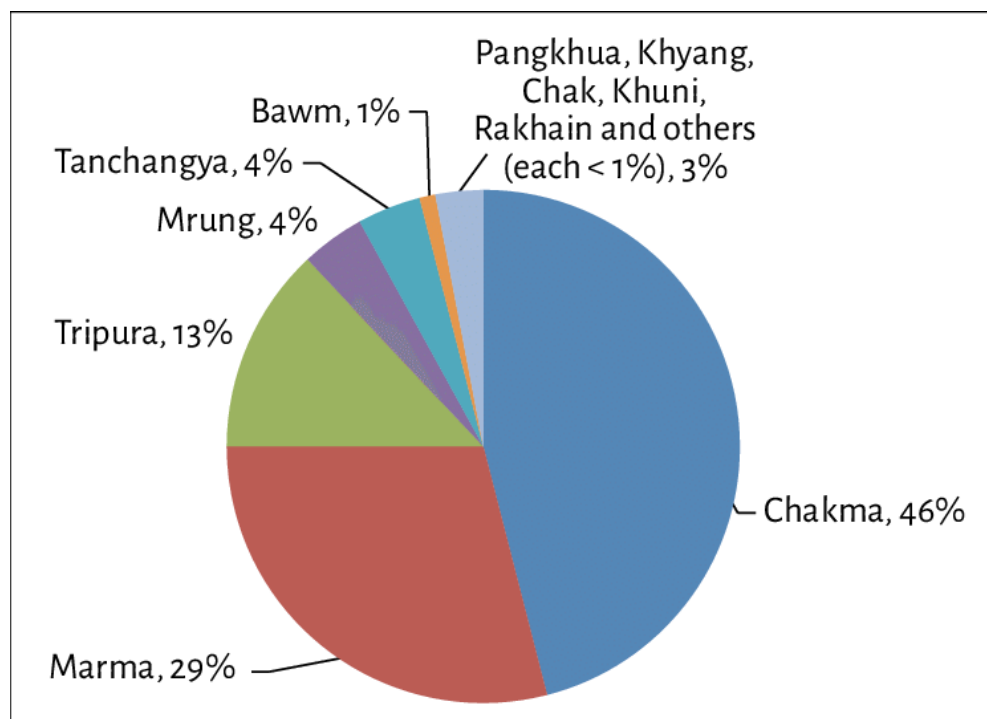
**Figure 1** | This visual highlight the major climate-induced challenges faced by Indigenous communities in the CHT, including erratic climate patterns, loss of biodiversity, scarcity of clean water resources, increased frequency of landslides, and limited access to climate-resilient infrastructure.

Additionally, CHT is home to over 54 Indigenous communities and is among the most climate-sensitive regions in Bangladesh. Indigenous peoples in these areas are highly dependent on natural resources, making them more vulnerable to climate-induced disasters. Most of the vulnerabilities are faced by the local Indigenous people living in these vulnerable regions who often lack enough attention in terms of adaptation and mitigation (LoGIC, 2024; MJF, 2020).

## 2.1. Who are indigenous people in CHT?

Indigenous peoples are ethnic groups with deep historical ties to specific regions, often living on ancestral land for generations. The “Jummas” are a collective name for the eleven or thirteen Indigenous ethnic groups residing in the Chittagong Hill Tracts (CHT) of Bangladesh, a region bordered by Burma and India.

Indigenous peoples are ethnic groups that have historically lived in specific regions as their ancestral territories. The Indigenous peoples known as the "Jummas" are the collective name for the eleven or thirteen ethnic groups living in the Chittagong Hill Tracts (CHT) of Bangladesh, a region bordering Burma and India. A list of all ethnic people communities are given in Figure 1.



**Figure 2** | Different types of ethnic communities in CHT (adapted from (Ahammad and Stacey 2007))

Key points about the Jumma communities:

- **Term “Jumma”:** The word “Jumma” means “shifting cultivator,” reflecting their traditional practice of jhum cultivation, an agricultural method passed down through generations.
- **Distinctive Characteristics:**
  - The Jumma peoples have unique languages, cultures, and physical traits that align with East or Southeast Asian populations.
  - The majority of Jumma communities follow Buddhism.
- **Political Aspirations:**

- The Jumma peoples seek **official recognition** as Indigenous peoples of Bangladesh.
- They aim for **autonomy** that respects their cultural heritage.
- Their goal is to **safeguard their ancestral land** and way of life, living in harmony with the majority Bengali Muslim population.
- Their vision is to foster coexistence based on **mutual respect** for cultural and historical differences.

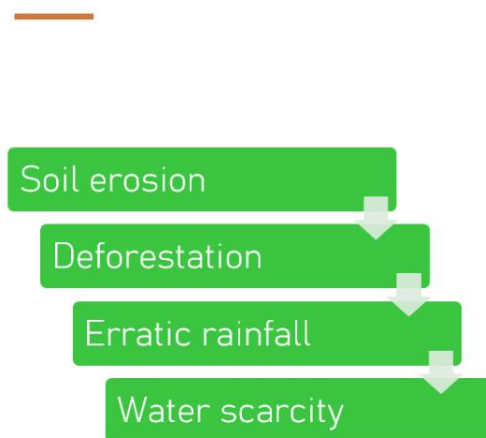
Their political aspirations are not for secession or independence, but for recognition and the ability to preserve their unique identity while contributing to Bangladesh’s diversity (Jumma Net, 2009).

## 2.2. Indigenous people and their vulnerability in CHT

Indigenous peoples are ethnic groups that have lived in specific regions for generations, maintaining their distinct languages, cultures, and religions. However, they were often marginalized when modern nation-states were formed, leading to the loss of their land and rights. There are about **250 million Indigenous peoples** globally, a number that could double when including Africa. These communities are often at the forefront of advocating for their rights, which are recognized in international agreements like:

- 1957 ILO Convention 107
- UN Declaration on the Rights of Indigenous Peoples

In the **Chittagong Hill Tracts (CHT)**, the Indigenous peoples, including the Jummas, face increased vulnerability to climate change due to their dependence on natural resources. Key threats to their livelihoods include:



**Figure 3 |** Indigenous Jumma communities in the Chittagong Hill Tracts face growing vulnerability to climate change, with threats like soil erosion, deforestation, erratic rainfall, and water scarcity endangering their traditional livelihoods and natural resource.



These climate impacts make their already existing **socioeconomic inequalities** worse, reducing the communities' ability to withstand climate-induced disasters. To help the Jumma communities adapt, it is crucial to find sustainable solutions that:

- **Incorporate Indigenous knowledge and practices**
- **Protect the environment**
- **Ensure the well-being of these communities** as they face the challenges of climate change.

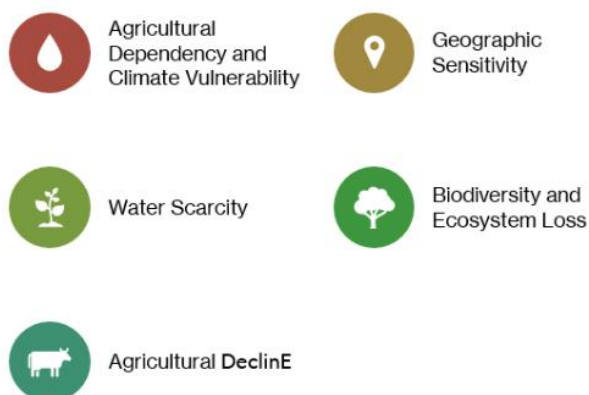
## Section 3: Climate change and the Chittagong Hill Tracts

### 3.1 Specific climate change impacts in CHT

The Indigenous Jumma communities in the Chittagong Hill Tracts face severe climate challenges, including erratic rainfall, soil erosion, and water scarcity. These issues threaten traditional farming, biodiversity, and water access, exacerbating vulnerabilities. Sustainable practices and resilient agricultural alternatives are urgently needed to safeguard livelihoods and ecosystems in this ecologically sensitive region. Some major impacts due to climate change are shown below,

#### Agricultural Dependency and Climate Vulnerability

Erratic rainfall and soil erosion reduce crop yields, disrupting traditional jhum farming. Limited crop diversification increases vulnerability to climate and market shocks.



**Figure 4 |** Key vulnerabilities in CHT: Agricultural dependency, climate sensitivity, water scarcity, and biodiversity loss impacting ecosystems and farming

## Geographic Sensitivity

CHT's rugged terrain faces landslides, droughts, and extreme rainfall. Unsustainable land use worsens watershed and forest degradation.

## Water Scarcity

Drying springs force long walks for water, burdening women and children. Contaminated sources during dry seasons increase waterborne diseases (The New Humanitarian, 2024).

## Biodiversity and Ecosystem Loss

Forest destruction degrades biodiversity and watersheds. Traditional conservation methods like VCFs are declining, worsening ecosystem health (Baten et al., 2010).

## Agricultural Decline

Climate changes threaten jhum farming, forcing reliance on chemical fertilizers. Unpredictable rainfall disrupts planting cycles, lowering yields and food security (Ahammad & Stacey, 2007).

### 3.2. Different livelihood challenges in CHT

Livelihoods in the Chittagong Hill Tracts (CHT) face significant challenges due to environmental, socio-political, and economic factors. Traditional practices like jhum (shifting) cultivation, once sustainable, are now threatened by:

- Reduced land availability
- Soil erosion
- Erratic rainfall patterns

These issues have forced many Indigenous communities to seek alternative livelihoods, which often lack economic security and cultural continuity.

Land tenure conflicts further complicate the situation. The coexistence of traditional and formal land governance systems has created ambiguity, leaving many Indigenous people without secure land rights. Key factors exacerbating these conflicts include:

- The construction of the Kaptai Dam, which displaced thousands
- The influx of settlers, leading to socioeconomic marginalization

Efforts to diversify income sources have shown promise through initiatives like improved agricultural practices, poultry farming, and vegetable production. Projects by organizations such as FAO have introduced techniques to enhance food security and sustainability, particularly for women, who face disproportionate challenges. However, long-term solutions require:

- Addressing institutional barriers
- Securing land rights

- Integrating Indigenous knowledge into policy frameworks (Sarkar & Mukul, 2024) (FAO, 2024) (Sarkar & Mukul, 2024) (FAO, 2024).

## Section 4: Some examples of current vulnerabilities in the CHT

### 4.1. Case Study 1: Water Scarcity & irregular rainfall in CHT

Chattogram faced a severe water crisis due to insufficient rainfall and algae accumulation in the Karnaphuli River, which hindered water purification efforts. A report from the Financial Express Bangladesh from 2023 says that, the Chattogram Water Supply and Sewerage Authority (WASA) rationed water as daily purification fell short by 100-120 million litres. The crisis, exacerbated by high temperatures and reduced water flow from Kaptai Lake, disrupted daily life, forcing many to rely on purchased water. Rain was urgently needed to alleviate the situation (The Financial Express, 2023).

#### Water Scarcity in Sajek Valley

The previous discussed case study explores the environmental and climate-induced vulnerabilities in CHT, focusing on water scarcity and its far-reaching impacts. Another critical example is the water crisis in Sajek Valley, a popular tourist destination, which faced severe shortages during the Eid holidays in 2024. Let's delve deeper into these challenges and their implications (The New Humanitarian, 2024). Here's what happened:

- **Tourist Boom, Water Bust:** With thousands of tourists flocking to Sajek, the daily water requirement skyrocketed. However, the valley's infrastructure was unprepared to handle the surge.
- **Distant Water Sources:** Water had to be transported from **Sijok Chora**, a location **five kilometers away**, due to the lack of local supply. Only **60 water-carrying vehicles** were available, far from enough to meet the demand.
- **Dry Season Woes:** The crisis was worsened by the **dry season**, which further depleted already scarce water resources.
- **Tourist Disappointment:** Many tourists, unable to access basic amenities, were forced to **cut their trips short**, leaving the area frustrated.

This crisis highlights a **critical need** for:

- **Sustainable water management** to balance tourism growth with resource availability.
- **Improved infrastructure** to support both tourists and local communities.
- **Environmental preservation** to ensure Sajek Valley remains a thriving destination for years to come.



**Figure 5 |** Water pumps along the Sijok Chora channel struggle to meet demands as Sajek faces a severe water crisis, worsened by tourist influx and extended dry conditions (*Dhaka Tribune, April 2024*)

### **Kaptai Lake: Erratic rainfall and water shortage**

Heavy rainfall caused Kaptai Lake's water levels to rise, submerging the iconic Hanging Bridge in Rangamati. This incident disrupted daily life and highlighted vulnerability to extreme weather. Key impacts:

- **Transport Disruptions:** Flooding trapped around 10,000 people in Baghaichari.
- **Road Submergence:** The Dighinala road in Khagrachhari was submerged, cutting off vital connections.
- **Infrastructure Risks:** The event shows the need for adaptive infrastructure to withstand climate shocks.

These issues stress the importance of better flood management and resilient infrastructure design.

Kaptai Lake has also faced severe water shortages, exposing weaknesses in water resource management:

- **Power Disruptions:** Low water levels affected hydroelectric power supply to Chattogram.
- **Water Supply Issues:** Increased salinity in the Halda River reduced water treatment by 50 million liters daily.
- **Climate Impacts:** Highlights the effect of seasonal changes and climate variability on water resources.





**Figure 6 |** Rising water levels in Kaptai Lake, triggered by heavy rainfall, submerge parts of the iconic Hanging Bridge in Rangamati, disrupting transportation and highlighting the region's vulnerability to extreme weather events. *Source (Dhaka Tribune)*

Addressing these challenges requires alternative reservoirs and integrated water management (Sarkar & Mukul, 2024).

#### 4.2. Case Study 2: The Impact of Unplanned Development on Flooding in Bandarban

Unplanned development in Bandarban has had devastating consequences, disrupting natural drainage systems and triggering unprecedented flooding. The impact of these changes has been both widespread and severe, affecting not just the environment but also local communities. Key factors contributing to this crisis include:

- **Blocked Waterways:** Unregulated construction has obstructed natural water flow, increasing flood risks.
- **Indiscriminate Hill-Cutting:** Widespread hill-cutting has destabilized slopes, causing soil erosion and reducing water absorption.
- **Damage to Infrastructure and Livelihoods:** Floods have severely affected high-rise buildings, *jhum* cultivation fields, and croplands.
- **Severe Losses for Communities:** The destruction of homes and farmlands has left local communities vulnerable, exposing gaps in disaster preparedness.

Dhaka Tribune said, “*The devastating Bandarban floods in August 2023 resulted in Tk 700 crore in damages, displacing 20,000 families, with 10+ deaths, 100 injuries, and extensive property destruction*” (Dhaka Tribune, 2023). These impacts highlight the



**Figure 7 |** Bandarban floods (August 2023) cause significant damages, displace thousands of families, and result in multiple deaths, injuries, with widespread destruction of homes and schools. *(Source: Dhaka Tribune, 2023)*

**urgent need to integrate sustainable land-use practices with ecological conservation.** Adopting nature-based solutions and environmentally conscious planning can help minimize the risk of such disasters in the future (Sarkar & Mukul, 2024)

#### **4.3. Case Study 5: Environmental Degradation and Landslide Vulnerability in the Chittagong Hill Tracts**

The Chittagong Hill Tracts (CHT) have faced increasing environmental fragility, leading to devastating landslides that have claimed lives and disrupted ecosystems. The worst landslides since 2007, which tragically killed over 130 people, including army personnel, highlight the severe consequences of environmental mismanagement.

A combination of deforestation, unregulated hill-cutting, and poor land-use practices has significantly heightened the region's vulnerability. The following key factors illustrate the complex interplay between human activities and ecological risks in the CHT:



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**Deforestation and Land Degradation:** Large-scale clearing of vegetation reduces natural soil stability, making hill slopes more susceptible to erosion and landslides.

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**Unregulated Hill-Cutting:** Commercial activities, especially in Bandarban, have reshaped hills into dangerously steep slopes, disrupting natural drainage systems and increasing the risk of slope failures.

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**Disrupted Water Flow:** Altered landscapes affect the natural flow of water, leading to soil saturation and heightened landslide potential during heavy rains.

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**Impact on Indigenous Communities:** Indigenous groups, who view the hills as sacred and integral to their cultural identity, are advocating for sustainable practices to preserve ecological balance and community safety.

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**Weak Environmental Regulations:** The lack of enforcement of existing environmental laws allows destructive practices to continue unchecked, exacerbating ecological degradation.



**Figure 8 |** After a few persons were killed in a landslide earlier, a team from the district administration of Chittagong has asked residents of the city's Motijharna region to relocate to safety (*The Daily Star, 2024*)

To address these challenges, it is critical to strengthen environmental regulations, promote sustainable land-use practices, and foster community resilience. Empowering local communities, especially indigenous groups, to participate in environmental stewardship can play a pivotal role in mitigating landslide risks and preserving the fragile ecosystems of the Chittagong Hill Tracts (FAO, 2024).



## Section 5: Possible Solution: Enhancing Climate Resilience through Integrated Watershed Management and Adaptation Strategies

Building resilience against climate change requires a dual approach: effective watershed management and strategic adaptation for Chittagong Hill Tracts. Both play pivotal roles in safeguarding natural resources, enhancing biodiversity, and ensuring sustainable livelihoods. Below, we explore these two essential components in detail.

### 5.1. Integrated Watershed Management

Integrated watershed management is a holistic approach that supports soil and water conservation, biodiversity, and community resilience. By regulating water flow, reducing runoff, and replenishing groundwater, it helps mitigate the adverse effects of climate change.

*Key Approaches Include:*

- **Reforestation and Agroforestry:**
  - Planting trees stabilizes soil, enhances water retention, and improves biodiversity.
  - Integrating agriculture with forestry promotes ecosystem health and combats drought and soil degradation. *Example:* In Comoros, over 1.2 million trees have been planted to combat environmental degradation (UNEP, 2024)
- **Participatory Watershed Management:**
  - Involves local communities in decision-making processes for watershed governance.
  - Enhances resilience against floods and droughts through community-led initiatives.
  - Promotes the protection of catchment areas and sustainable water use.
- **Ecosystem-Based Approaches:**
  - Focus on nature-based solutions like Payment for Ecosystem Services (PES) to encourage conservation.
  - Foster sustainable water management practices while providing economic incentives for local communities ("IISD," 2008).
- **Hydrological Adaptation:**
  - Utilizes real-time water monitoring and data-driven modeling to optimize water distribution and quality.
  - Reduces the impact of extreme weather events by ensuring efficient resource management (Frontiers, 2025).

## 5.2. Adaptation Strategies

In addition to watershed management, targeted adaptation strategies enhance community resilience to climate-induced stresses. These include:

- **Behavioral Changes:**
  - Encouraging crop diversification and the adoption of climate-resilient crop varieties.
  - Ensures food security and income stability in changing climatic conditions.
  - *Research Insight:* Studies from Frontiers Research Topics highlight the importance of local agricultural adaptations (*Frontiers Research Topics, MDPI*).
- **Constructing Defenses:**
  - Building physical barriers like embankments to reduce flood and erosion risks.
  - Implementing natural solutions such as riparian buffers to maintain ecological balance.
  - *Case Study:* UNEP reports showcase practical examples in vulnerable regions (*UNEP, Climate Change Response Framework*).
- **Mulching:**
  - Conserves soil moisture, reduces erosion, and enhances agricultural productivity.
  - Especially effective in arid regions with unpredictable rainfall (*MDPI Special Issue on Watershed Management*).
- **Bamboo Utilization:**
  - Serves as a renewable resource for construction, tools, and food production.
  - Promotes soil stability, supports sustainable livelihoods, and contributes to climate resilience.

## Conclusion

The Chittagong Hill Tracts (CHT) face significant climate vulnerabilities, disproportionately impacting Indigenous Jumma communities. Erratic rainfall, water scarcity, deforestation, and unplanned development exacerbate socioeconomic and environmental challenges, threatening traditional livelihoods and ecosystems. Sustainable solutions, such as integrated watershed management, reforestation, and community-led adaptation strategies, are crucial to enhancing resilience. Addressing land tenure conflicts, incorporating Indigenous knowledge, and promoting eco-friendly practices can mitigate risks and foster long-term sustainability. Collaborative efforts involving local communities, policymakers, and organizations are essential to safeguarding the CHT's biodiversity, cultural heritage, and socioeconomic well-being in the face of climate change.

## Key Highlights of Climate Vulnerability in the Chittagong Hill Tracts (CHT)

The Chittagong Hill Tracts (CHT) of Bangladesh, home to over 54 Indigenous communities known as the "Jummas," face critical climate-related vulnerabilities. The region's rugged terrain, dependency on natural resources, and socio-political complexities exacerbate the risks posed by climate change. Indigenous communities in CHT are particularly vulnerable due to limited access to adaptive resources, marginalization, and the adverse impacts of unplanned development.

### Key Highlights:

- **Climate Vulnerabilities:** Increased frequency of erratic rainfall, prolonged droughts, water scarcity, soil erosion, and landslide risks.
- **Livelihood Challenges:** Decline in traditional jhum cultivation due to reduced land availability, environmental degradation, and unpredictable weather patterns.
- **Water Insecurity:** Drying springs, depleted water bodies like Kaptai Lake, and seasonal water crises affecting both locals and tourism.
- **Unplanned Development:** Hill-cutting, deforestation, and poorly planned infrastructure increasing flood and landslide risks.
- **Indigenous Rights and Recognition:** Socio-political struggles for land rights, cultural preservation, and climate adaptation support.
- **Adaptation Strategies:** Integrated watershed management, reforestation, sustainable agriculture, and ecosystem-based solutions to build climate resilience.

This module emphasizes the urgent need for climate-sensitive policies, Indigenous knowledge integration, and community-led adaptation strategies to safeguard the CHT's environment and people.

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**| Session 07: Navigating Adaptation Understanding  
Proposal Development and Funding Sources**

## Section 1: Overview of the Training Module

### 1.1 Brief Introduction to the Module

Juel Mahmud, Programme Coordinator and Maria Aktar, Assistant Project Manager, CAPRES at International Center for Climate Change and Development (ICCCAD), will be the lead facilitator of this particular session.

	Tutor	Juel Mahmud Maria Aktar
	Subject	Navigating Adaptation Understanding Proposal Development and Funding Sources
	Time	This training session will be almost an hour.
	Learning Outcomes	By the end of this module, participants will be able to understand the fundamentals of proposal development for climate adaptation projects, identify key funding sources, and apply strategic resource mobilization techniques. They will also gain practical insights into donor engagement, crafting tailored proposals, and navigating common fundraising challenges to secure sustainable funding for climate resilience initiatives.
	Materials used	Desktop/laptop Multimedia projector PowerPoint Presentation
	Topics	<ul style="list-style-type: none"> <li>• Introduction to Fundraising for Development Projects</li> <li>• Importance of Resource Mobilization in Climate Adaptation</li> <li>• Types of Donors and Their Objectives</li> <li>• Navigating Fundraising Realities: Strategies for Success</li> <li>• Strategies to Address Common Fundraising Hurdles</li> <li>• Sustaining Success: Modern Approaches to Fundraising Realities</li> <li>• Tips for Preparing a Project Proposal</li> </ul>



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## **Section 2: Introduction**

### **2.1. Introduction to Fundraising for Development Projects**

A vital tool for obtaining funding to carry out development initiatives, meeting social demands, and encouraging innovation is fundraising. Strategic planning, goal-setting, and stakeholder involvement are all components of successful fundraising that draw in grants, investments, and donations. Key approaches include leveraging community support, cultivating donor relationships, and utilizing grant writing to fund socially impactful initiatives. By integrating innovative methods like crowdfunding, organizations can further diversify funding sources, ensuring sustainability (Nahaichuk, 2023).

A successful fundraising strategy begins with comprehensive donor research. Platforms such as Idealist.org and the Development Gateway provide access to extensive databases of global funding sources. Understanding donor priorities—such as health, education, infrastructure, or climate resilience—is essential to crafting tailored proposals. For example, agencies like the United States Agency for International Development (USAID) emphasize measurable impacts and sustainability.

Challenges in fundraising often include high competition, stringent application processes, and limited resources for proposal development. Addressing these requires emphasizing long-term sustainability in proposals, as donors are increasingly reluctant to support projects dependent solely on external funding. Additionally, tools like Guidestar help identify funding opportunities aligned with specific project needs, providing a strategic edge in securing grants (Humeniuk, 2023).

### **2.2 Importance of Resource Mobilization in Climate Adaptation**

The implementation of successful climate adaptation methods requires the mobilization of resources. The importance of obtaining technical and financial resources for project success is examined in this subsection. It places a strong emphasis on matching financing initiatives to environmental concerns and community needs. Participants will learn how effective resource mobilization promotes teamwork, creativity, and lasting influence.

## Section 3: Types of donors

Participants will learn about the major donor categories:

- **Official Development Assistance (ODA) Agencies:** E.g., USAID, JICA, and DFID.
- **United Nations Agencies:** E.g., UNDP, UNICEF, and WHO.
- **Multilateral Development Banks:** E.g., World Bank and Asian Development Bank.
- **International Foundations:** E.g., Aga Khan Foundation.
- **Government and Local Sources:** Ministries, local businesses, and service clubs. This session will include a detailed discussion of the unique characteristics and priorities of each donor type.

### 3.1. Donors and their Objectives

#### Official Development Assistance (ODA) Agencies

- **AUSAID:** Promotes sustainable development and poverty alleviation in partner countries.
- **CIDA:** Supports sustainable economic growth and international development.
- **DFID/UK:** Focuses on ending extreme poverty and tackling global challenges.
- **EU:** Provides funding for international cooperation and regional stability.
- **JICA:** Supports economic growth, disaster management, and human resource development.
- **SIDA/Sweden:** Enhances human rights, democracy, and sustainable development.
- **USAID:** Promotes global development, health, and humanitarian assistance.

#### United Nations Agencies

- **ILO:** Improves labor standards and promotes decent work globally.
- **UNICEF:** Advocates for children's rights, survival, and development.
- **UNDP:** Aims to eradicate poverty and reduce inequalities through sustainable development.
- **UNESCO:** Promotes education, science, and cultural understanding.
- **UNFPA:** Supports reproductive health and rights worldwide.
- **WHO:** Leads global health responses and promotes public health initiatives.
- **UNIFEM:** Advocates for women's empowerment and gender equality.

#### Multilateral Development Banks

- **African Development Bank:** Strengthens sustainable economic growth in Africa.

- **Asian Development Bank:** Supports economic and social development in Asia.
- **European Bank for Reconstruction and Development:** Promotes market-oriented reforms.
- **Japan Bank for International Cooperation:** Funds projects that enhance international cooperation.
- **World Bank:** Provides financial support to reduce poverty globally.

### International Foundations

- **Aga Khan Foundation:** Addresses poverty and development in underprivileged areas.
- **Asian Development Trust (Japan):** Focuses on social and economic development in Asia.

### International NGOs

- **ActionAid:** Tackles inequality and poverty through community-based initiatives.
- **CARE:** Addresses global poverty and provides humanitarian aid.
- **Concern Worldwide:** Responds to hunger, emergencies, and poverty.
- **Helvetas:** Promotes sustainable development in rural areas.
- **Norwegian People's Aid:** Focuses on humanitarian aid and advocacy.
- **Save the Children:** Protects children's rights and improves their lives.
- **Terre des Hommes:** Safeguards children's well-being and fights child exploitation.

### International Church-Based Organizations

- **ChristianAid:** Combats poverty and inequality globally.
- **Caritas:** Provides disaster relief and development assistance.
- **Catholic Relief Services:** Focuses on humanitarian relief and development.
- **World Vision:** Improves children's lives through health and education programs.

### Local Sources

- **Government Ministries:** Implement national development projects.
- **Local Businesses:** Contribute to community initiatives.
- **Independent Foundations:** Fund specific developmental or humanitarian efforts.
- **Community Foundations:** Support local charitable activities.
- **Service Clubs:** Engage in community service and international projects.

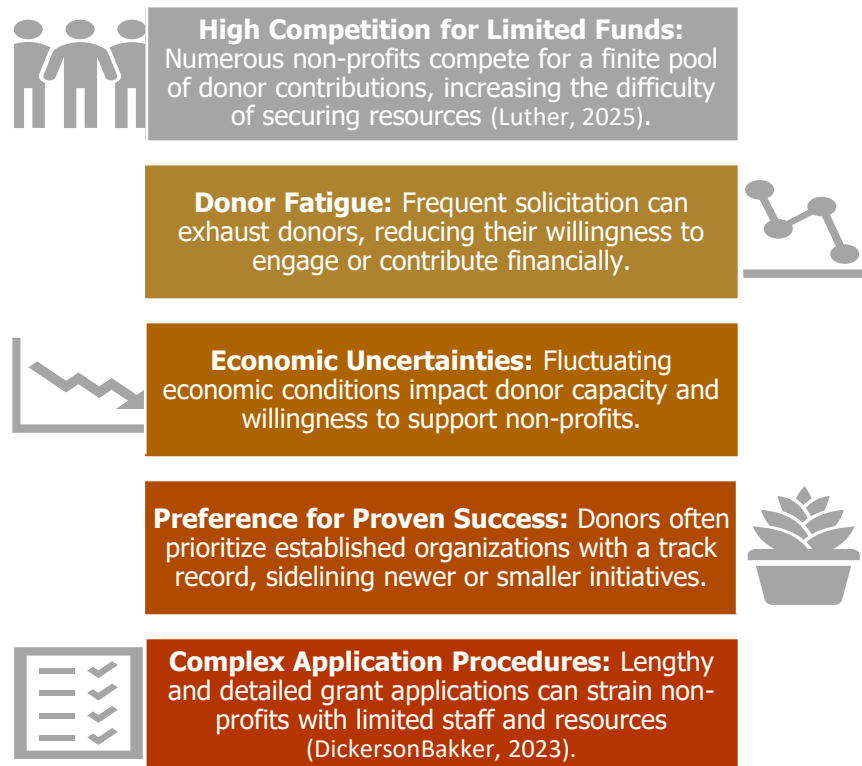
## Research Platforms

- **Development Gateway:** Provides tools for sustainable development project tracking.
- **Directory of Development Organizations:** Offers resources to identify potential donors.
- **European Foundation Centre:** Connects foundations across Europe.
- **US International Grantmakers:** Helps organizations seeking US-based grants.
- **World Bank NGO and Civil Society Unit:** Facilitates collaboration with civil society.
- **Fundsnet Services:** Lists funding opportunities for NGOs.

## Section 4: Navigating Fundraising Realities: Strategies for Success

### 4.1. Challenges in Fundraising

Fundraising for development projects presents a complex landscape characterized by high competition, donor-specific priorities, and economic uncertainties. Recognizing these realities is essential for crafting effective strategies that enhance donor engagement and secure necessary resources.



**Figure 1** | Key Fundraising Challenges for Non-Profits: Addressing Competition, Donor Fatigue, Economic Uncertainty, Proven Success Bias, and Application Complexities. *Source:* (CommunityForce, 2025)

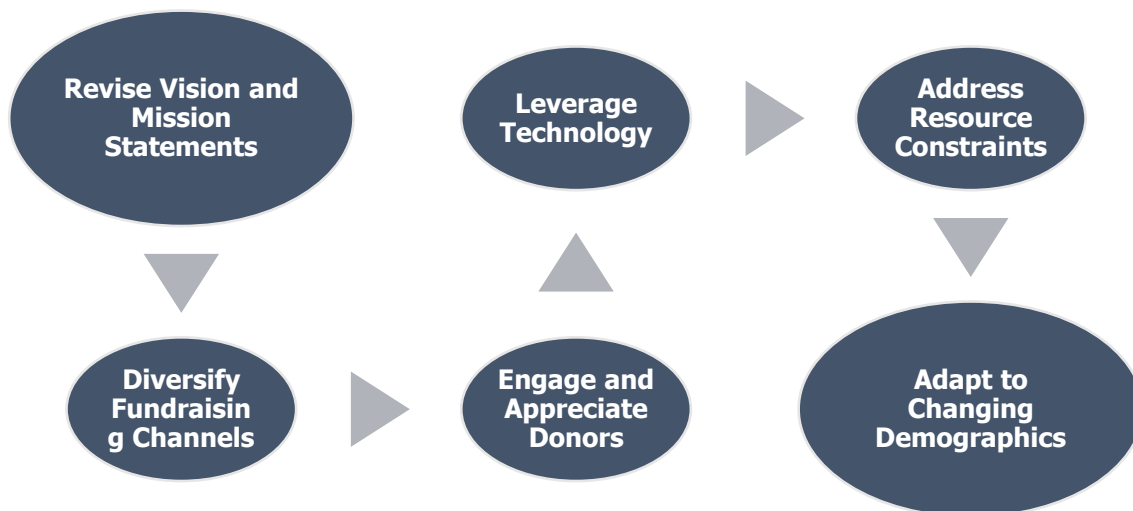
Fundraising is a critical yet challenging aspect for non-profits, as they rely heavily on financial support to achieve their goals. These organizations face multiple hurdles that require innovative strategies to overcome.

Addressing these challenges requires non-profits to innovate, streamline their processes, and build strong relationships with donors while maintaining transparency and trust. By leveraging technology and adopting a strategic approach, non-profits can navigate these obstacles and ensure sustainable funding for their missions.

#### 4.2 Strategies to Address Common Fundraising Hurdles

Nonprofit organizations need to raise money, but success is frequently hampered by a number of issues. Nonprofits face a number of challenges in achieving their objectives, including donor fatigue, resource scarcity, and economic downturns. Nonprofits can overcome these obstacles and enhance their fundraising results with careful planning, creative solutions, and efficient resource allocation.

Some common strategies are given below,



**Figure 2** | Key strategies to overcome fundraising challenges, including revising mission statements, leveraging technology, diversifying channels, engaging donors, addressing resource constraints, and adapting to demographics. *Adapted from* (Luther, 2025)

- **Revise Vision and Mission Statements:** Create clear, specific, and compelling messaging to resonate with donors and distinguish your organization from competitors.
- **Diversify Fundraising Channels:** Increase the number of events, pursue additional grants, explore corporate sponsorships, and implement recurring donation programs.
- **Engage and Appreciate Donors:** Regularly communicate the impact of donations, avoid over-solicitation, and hold donor appreciation events to build trust and loyalty.

- **Leverage Technology:** Invest in modern tools like mobile apps, online donation platforms, and automated systems to enhance donor experiences and expand outreach.
- **Address Resource Constraints:** Develop realistic budgets, seek diverse funding streams, and prioritize training for staff and volunteers to maximize efficiency.
- **Adapt to Changing Demographics:** Tailor fundraising strategies to different generations, considering their unique preferences and technological habits.

Nonprofits can strengthen their relationships with donors, make the most of their resources, and develop long-term fundraising models that further their missions and increase their influence in the community by implementing these tactics.

Fundraising is crucial but challenging for nonprofits due to competition, donor fatigue, economic uncertainties, and complex procedures. Donor preferences for proven success add pressure on smaller organizations. To overcome these, nonprofits can align donor priorities with goals, leverage technology, and diversify funding sources, building resilience and fostering long-term donor relationships. The table below summarizes key strategies to overcome challenges in fund raising,

**Table 1 | Challenges and Strategies for Effective Fundraising in Nonprofit Organizations**

<b>Challenges in Fundraising</b>	<b>Strategies to Overcome Challenges</b>
<b>High Competition for Limited Funds</b>	Develop tailored proposals that align with donor priorities and clearly articulate the project's impact.
<b>Donor Fatigue</b>	Build and nurture relationships with donors through transparent communication and regular engagement.
<b>Economic Uncertainties</b>	Diversify funding sources by exploring grants, partnerships, and individual contributions to ensure financial stability.
<b>Preference for Proven Success</b>	Highlight long-term vision and resilience by showcasing past achievements and outlining sustainable plans.
<b>Complex Application Procedures</b>	Utilize technology to streamline processes, simplify grant applications, and expand donor outreach effectively.



### 4.3. Sustaining Success: Modern Approaches to Fundraising Realities

Nonprofit organizations must embrace contemporary, resilient strategies that correspond with changing difficulties in order to successfully navigate the intricacies of fundraising. Continual realities that need strategic innovation include intense competition, donor fatigue, economic uncertainty, and the requirement for measurable impact.

- **High Competition for Limited Funds:** Nonprofit organizations face significant



#### Customized Suggestions to Make a Statement

Nonprofits can overcome high competition by crafting proposals that directly align with donor priorities. Highlighting unique project value and measurable outcomes increases the likelihood of donor support.



#### Developing Credibility to Fight Donor Fatigue

Keeping lines of communication open and constant fosters relationships with donors. Long-term engagement and loyalty are fostered by acknowledging contributions and proving their value (IntegralWorld, 2024) (Vanco, 2024).



#### Increasing the Variety of Revenue Sources for Stability

Economic uncertainties necessitate exploring diverse funding avenues. Grants, corporate partnerships, and crowdfunding can help reduce financial dependency and ensure resilience during downturns.



#### Exhibiting Long-Term Vision and Resilience

Presenting sustainable plans and showcasing proven success instills confidence in donors seeking organizations with a lasting impact. This approach appeals to those prioritizing measurable results and stability.



#### Using Technology to Increase Outreach and Efficiency

Digital tools such as mobile apps, online platforms, and automated systems streamline fundraising processes. These innovations enhance donor experiences, simplify complex application procedures, and expand the reach of nonprofit initiatives.

**Figure 3 | Key Strategies for Effective Nonprofit Fundraising:** From crafting customized proposals and fighting donor fatigue to leveraging technology and showcasing long-term resilience, these approaches ensure financial stability and enhanced donor engagement

challenges due to the competitive nature of fundraising, with numerous entities vying for limited resources (Luther, 2025).

- **Donor Fatigue:** Continuous solicitation can lead to donor fatigue, resulting in decreased engagement and financial support.
- **Economic Uncertainties:** Fluctuations in the economy can impact donor willingness and capacity to contribute, affecting fundraising outcomes.
- **Preference for Proven Success:** Donors often prioritize organizations with a track record of successful project implementation, making it challenging for new or smaller nonprofits to secure funding.
- **Complex Application Procedures:** The detailed and time-consuming nature of grant applications can strain organizational resources, particularly for those with limited staffing (DickersonBakker, 2023).

### Fundraising Strategies

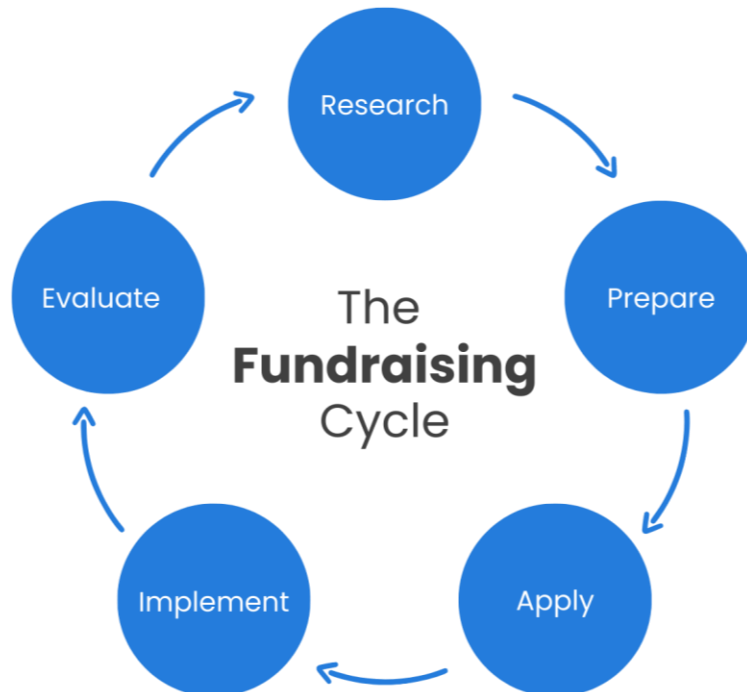
- **Tailored Proposals:** Aligning project objectives with donor priorities and clearly articulating the impact can enhance proposal effectiveness.
- **Building Relationships with Donors:** Establishing and maintaining strong relationships through regular communication and transparency fosters trust and long-term support.
- **Diversifying Funding Sources:** Seeking multiple funding avenues, including grants, individual donations, and partnerships, reduces dependency on a single source and enhances financial stability.

- **Adopting a Long-Term Vision:** Developing sustainable plans that demonstrate organizational resilience and long-term impact appeals to donors seeking lasting change (IntegralWorld, 2024).
- **Effective Use of Technology:** Leveraging digital tools and platforms can streamline fundraising efforts, expand reach, and engage a broader donor base (Vanco, 2024).

## Section 4: Tips for Preparing a Project Proposal

Preparing a successful project proposal involves a clear understanding of the funding organization's priorities, the project's intended outcomes, and adherence to best practices. Based on insights from the provided file and additional references, here are key tips:

- **Understand Funding Cycles**  
Funding cycles happen one to three times a year, and if an application is rejected, it can be reapplied for. Aligning with funder priorities, creating thorough planning, and submitting strong proposals are all necessary for success. Post-submission, adjustments may be needed. Unsuccessful attempts offer chances to refine research and improve alignment with funder expectations, enhancing future proposal outcomes.



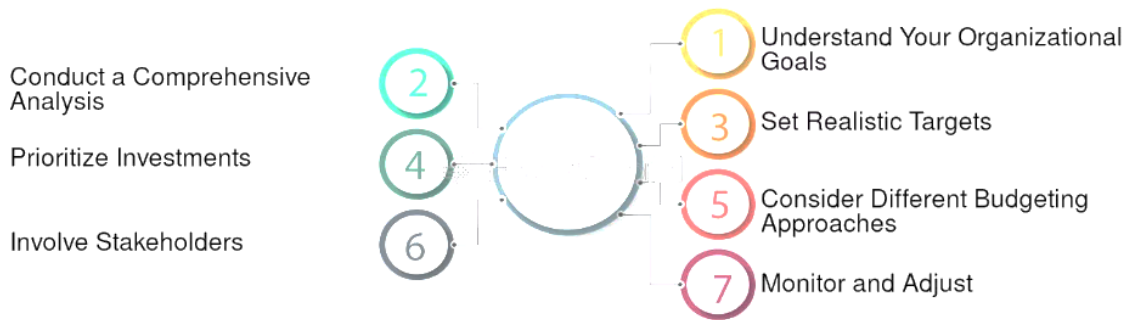
**Figure 4** | Visual Representation of the Fundraising Cycle: Research, Prepare, Apply, Implement, and Evaluate for Grant Success. *Source:* (PritiThapa, 2025)

- **Align with Organizational Priorities**

Ensure the proposal directly addresses the funder's stated priorities and objectives. Tailor your language to reflect these priorities but avoid verbatim repetitions, as originality and relevance matter.

- **Budget Appropriately**

To request a reasonable and justified budget, find out the organization's average financing size. Avoid overpromising and make sure the proposal fits your organization's objectives and capabilities. Perform a thorough evaluation of your



**Figure 5** | Key Steps for Developing a Strategic Budget Plan: From Understanding Goals to Monitoring Progress for Effective Resource Allocation. *Photo adapted from:* (FasterCapital, 2024)

financial status and use SMART concepts to establish reasonable goals. Involve stakeholders in the planning process to obtain insightful information, rank high-return investments, and maintain flexibility by keeping an eye on the budget and making necessary adjustments.

- **Detail Objectives and Impact**

Clearly outline the intended impact of the project with specific, measurable benefits for the target groups. Avoid vague language and provide substantial details.

- **Follow Guidelines Meticulously**

Adhere strictly to the funder's guidelines and procedures to avoid disqualification. Review for accuracy and compliance with stated requirements.

- **Build Long-Term Sustainability**

Proposals should include a strategy for self-sufficiency to ensure the project's viability beyond the funded timeframe. Funders prefer projects that reduce dependency on external funding.

- **Use Well-Articulated Language**

Use compelling, precise, and well-structured language to convey the proposal's value and impact effectively. Articulation can significantly influence the funder's perception.

## Conclusion

The module "Navigating Adaptation: Understanding Proposal Development and Funding Sources" effectively highlights critical aspects of climate adaptation and resource mobilization. It provides a comprehensive framework for understanding the essentials of proposal development and strategies to secure funding for climate-related initiatives.

### Key Discussions:

- **Fundamentals of Resource Mobilization:** Emphasized strategic planning, donor alignment, and innovative fundraising techniques like crowdfunding.
- **Types of Donors:** Discussed categories such as ODA agencies, UN organizations, multilateral banks, and local sources, with their unique objectives.
- **Fundraising Challenges and Strategies:** Addressed hurdles like donor fatigue and economic uncertainties, while suggesting tailored proposals, diversification, and long-term sustainability plans.
- **Proposal Preparation Tips:** Covered alignment with organizational priorities, realistic budgeting, and the importance of well-articulated language and sustainability strategies.

In summary, the module equips participants with the knowledge and tools to effectively navigate the complexities of proposal development and funding. By integrating strategic planning, stakeholder engagement, and innovative approaches, organizations can enhance their ability to secure resources, fostering impactful and sustainable climate adaptation initiatives.

## Key Highlights

- **Resource Mobilization Fundamentals:** Importance of strategic planning, donor alignment, and innovative fundraising techniques.
- **Types of Donors:** Overview of ODA agencies, UN bodies, multilateral banks, international NGOs, foundations, and local sources.
- **Fundraising Challenges & Strategies:** Addressed donor fatigue, economic uncertainties, and competition with strategies for resilience.
- **Proposal Development Tips:** Emphasis on aligning with donor priorities, realistic budgeting, sustainability, and compelling communication.
- **Modern Fundraising Approaches:** Leveraging technology, diversifying funding sources, and fostering long-term donor relationships.

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