APCTT
Asian and Pacific Centre
for Transfer of Technology
ESCAP

वैज्ञानिक और औद्योगिक अनुसंधान विभाग
Department of
Scientific and Industrial Research

# Enhancing the Role of Youth & Young Entrepreneurs to Promote AI Technologies for Climate Action & Resilience

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# The Keystone: Youth as AI-Climate Innovators

## THE DEMOGRAPHIC IMPERATIVE & PROVEN POTENTIAL

Asia-Pacific Median Age: **~31 years** (UN DESA, 2025).

**>50%** 

of the region's population is under 30 – a vast, digitally-native talent pool.

**Proven Potential for AI-driven Solutions.**

## YOUTH-LED AI INNOVATION IN ACTION

**CultYvate (Water Security & Agricultural Resilience):** Uses AI and IoT-driven real-time irrigation to achieve large-scale water conservation while significantly lowering agricultural carbon emissions.

**Gujarat Mahila Housing SEWA Trust (Urban Climate Adaptation & Community Resilience):** Deploys AI/ML-based flood and heat-risk mapping to safeguard vulnerable urban communities, with a focus on gender-inclusive resilience.

**Cropital, Philippines (Agricultural Finance & Productivity):** Applies AI-powered farm risk assessment to substantially enhance farm productivity, increasing crop yields by over 50%.

**Dazhboards, Australia (Sustainable Tourism & Climate Action):** Leverages AI to automate and scale carbon-tracking mechanisms across the eco-tourism sector, enabling measurable sustainability reporting.

# The Gap: A Fragmented Support Ecosystem

- **Identifying the Systemic Barriers**

**The Collaboration Gap**
Disconnect between academic research (theses) and industry problems.

**The Resource Gap**
Uneven access to funding, data, and compute power across the region.

**The Mobility Gap**
Skills & proven solutions are confined by national borders.

- **Research Capacity Context**

Global PhDs Awarded Annually: **~250,000**

Asia's Share: **~35%** and growing (UNESCO, 2024).

India's Contribution: A leading producer, with **~30,000** STEM PhDs annually (AISHE, 2023-24).

**The Challenge:** Translating this research volume into deployed, cross-border climate solutions.

- **Callout:**

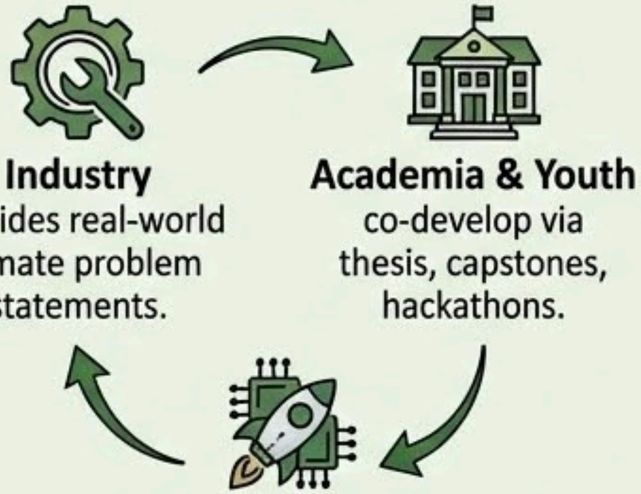
**Current State:**
Support is fragmented, national, ad-hoc.

**Needed State:**
A deliberate, regional, architectural approach.

# Pillar 1: Industrialize Academia, Academicize Industry

Bridge the Gap with Mission-Led Partnerships

## Proposed Model: The "AI4AI" Framework



**Industry**
provides real-world climate problem statements.

**Academia & Youth**
co-develop via thesis, capstones, hackathons.

**Output**
Deployable tools, skilled talent, IP for startups.

## National Ecosystem Builders (Inspired By) & Success Story

**Atal Innovation Mission (AIM)**
10,000+ Atal Tinkering Labs in schools, fostering culture.

**Startup India Mission**
Simplified compliance, funding, & tax benefits for early-stage ventures.

**Success Story:**
The **GreenMind Hackathon** (India AI Impact Summit) led to 200+ startups, with winning projects showing 15% emission reductions.

## Call to Action

**Create Regional "Climate AI Sandboxes"**

Shared platforms for data, testing, and co-creation.

# Pillar 2: Finance the ‘Unproven’ & De-risk the Novel

## Build a Fit-for-Purpose Financial Architecture

**The Problem:**
Deep-tech climate AI has long R&D horizons, scaring traditional risk capital.

**The Solution:**
Blended Finance with Early-Stage Support.

## Model for a Regional “Climate AI Catalyst Fund”:

**Public/UN Capital (De-risker):**
Provides first-loss grants/seed funding (e.g., via mechanisms like India’s **NIDHI-PRAYAS** or **SISFS** grants) for Proof-of-Concept.

**Effect:** Mitigates risk for private investors, validating the technology and team.

**Private Capital (Scaler):**
VCs and Impact Investors then fund the scaling of validated solutions.

**Impact:** Targets **youth-led startups** with capital plus mentorship and tech support.

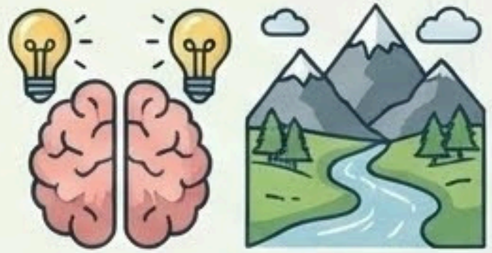
# Pillar 3: Institutionalize Cross-Border Skill & Solution Flow

**From:** Occasional conferences & one-off deals.

**To:** A permanent **"APAC Youth AI for Climate Resilience Network."**

**Skill Exchange & workshops for deep co-creation**

**Modular Solution Licenses**
Low/no-cost licensing for local adaptation (e.g., Flood model Indonesia → Philippines).



**Joint Hackathons:**
Solving regional challenges (e.g., Mekong Delta salinity, Himalayan glacial monitoring).

**Powerful Precedent:** The ASEAN AI for Sustainable Development project demonstrates effective cross-border collaboration on emissions tracking and disaster prediction.

# Our Shared Commitment – The APAC AI for Climate Resilience Mission

## The Call to Action: Build the Empowerment Architecture Together

**Academia:**

Incentivize translational R&D.

**Pilot:** DTU's **'Ezinore' project** – a semester break model for student startup pursuits. Advocate for PhD models like **BIT'S PILANI HD DRIVE, embedding research in ventures.**

BIT'S PILANI PHD DRIVE

**Industry:**

Open **challenge books**. Partner with incubators for industry internships with startups.

**Policymakers:**

Craft '**innovation visas**', fund the network, harmonize data policies.

# CONCLUSION

**The Vision:**

**Commit today to an "Asia-Pacific AI for Climate Resilience Mission."**

**Empowered Youth → Scalable AI Solutions → Regional Resilience → SDGs Achieved.**


# THANK YOU