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Environmental Innovator Program in Climate Change Mitigation and Adaptation for Asia and Africa

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KEIO
Environmental
Innovators



Strategic Funds for the Promotion of
Science and Technology

Graduate School of Media and Governance @ Keio University

International Program for Environmental Innovators

- This program aims to train world-class environmental leaders who are able to tackle the dual problems of climate change **mitigation and adaptation** with an multi-disciplinary curriculum of eco-business, environmental planning and policy, environmental design, and social entrepreneurship.

Climate Change Mitigation and Adaptation

- Mitigation

- The International Panel on Climate Change (IPCC) defines mitigation as: "An anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases."

- Adaptation

- The IPCC defines adaptation as the, "adjustment in natural or human systems to a new or changing environment."

- Mitigation and Adaptation

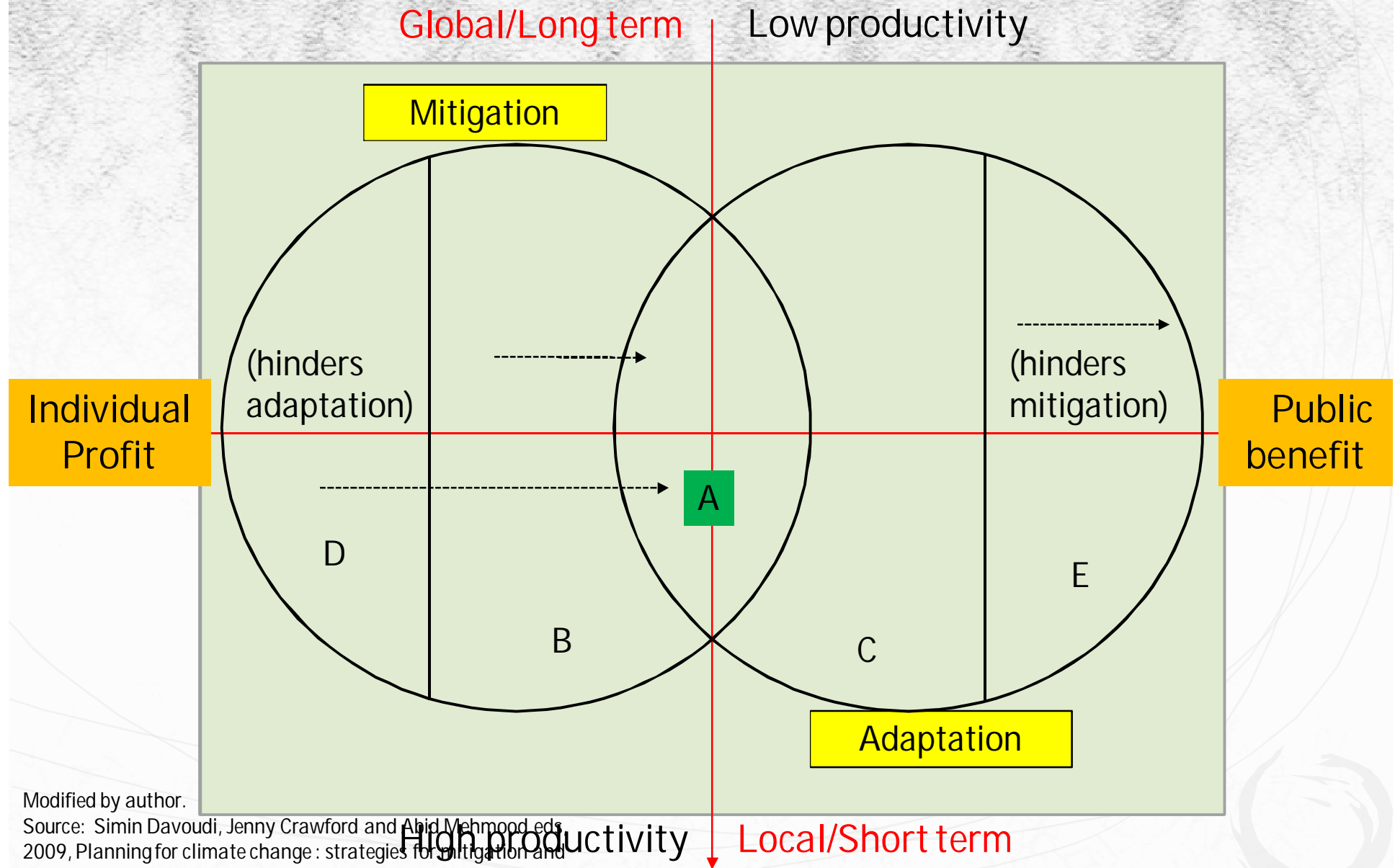
- While mitigation tackles the causes of climate change, adaptation tackles the effects of the phenomenon.

Climate mitigation and adaptation should not be seen as alternatives to each other, as they are not discrete activities but rather a combined set of actions in an overall strategy to reduce greenhouse gas emissions.

Mitigation of and Adaptation Measures to CC (urban and global)

MEASURES	To UHI		To CC	
	M	A	M	A
INDIVIDUAL SURVIVAL				
AIR CONDITIONING	×		×	×
SOLAR RADIATION SHIELDING				
INDOOR VENTILATION				
USE OF EXHAUST HEAT				
HEAT INSULATION				
USE OF LIGHT COLORED PAINT				
HIGHLY REFLECTIVE PAINTS				
ENERGY CONSERVATION				
ROOFTOP GREENING				
WATER-RETENTIVE PAVEMENT				
OPEN WATER SPACE				
GREEN SPACES AND PARKS				
ALTERNATIVE INFRASTRUCTURE				
DISTRICT HEATING AND COOLING				
PARK AND RIDE				
WIND PATHS				
ALTERNATIVE ENERGY PRODUCTION				
PHOTOVOLTAIC CELLS				

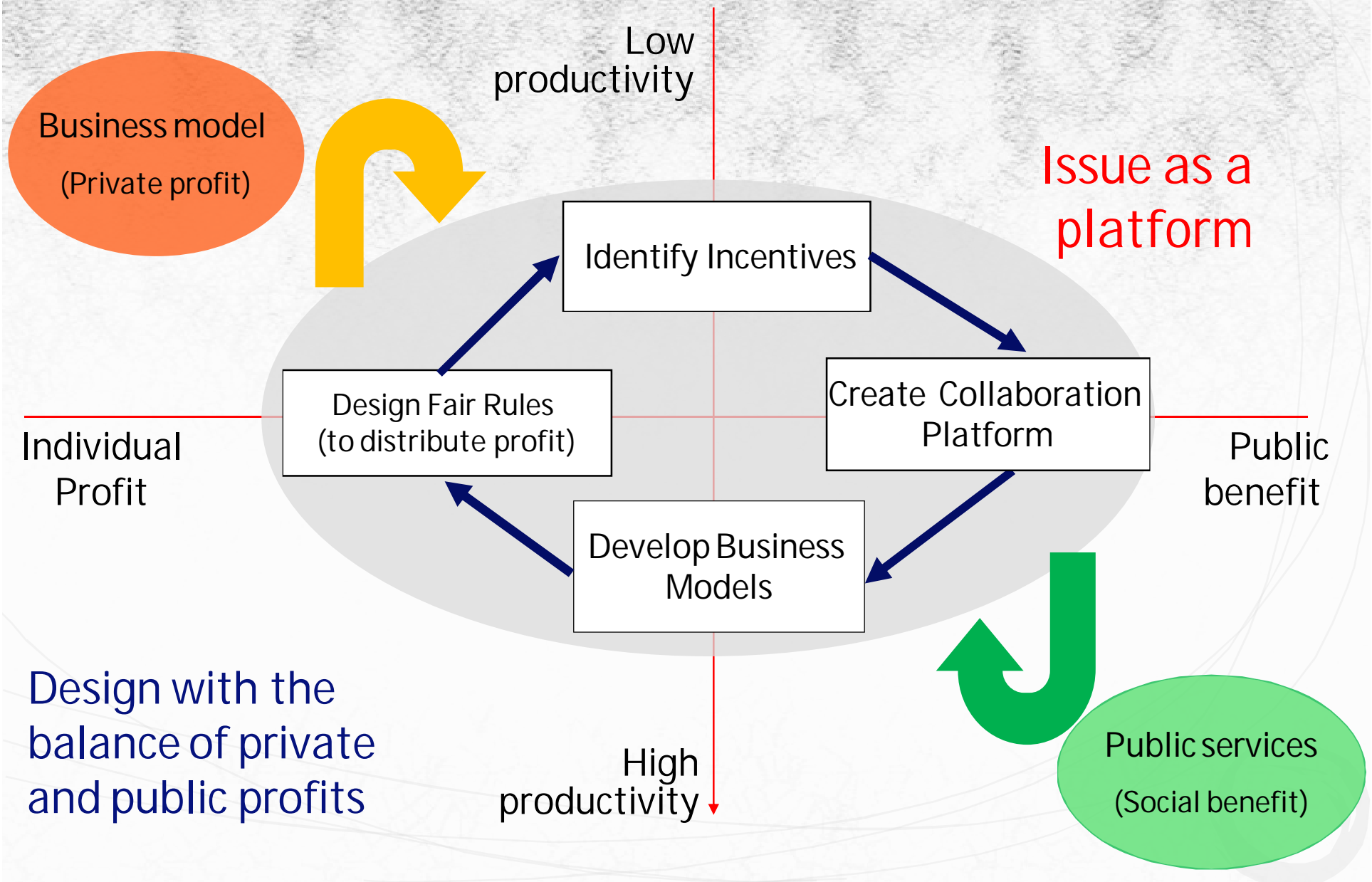
Dilemmas in plan and Implementation of Mitigation and Adaptation



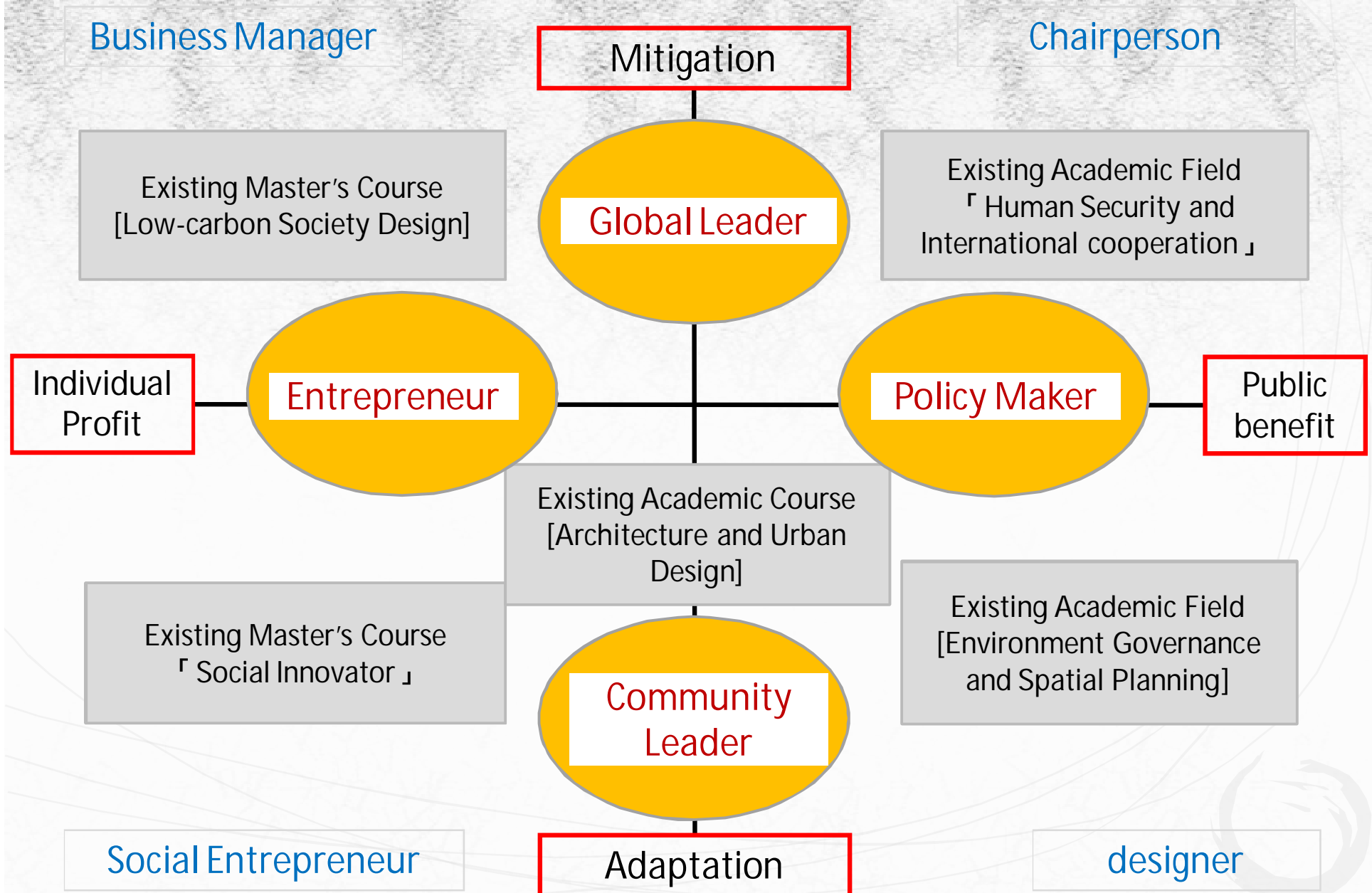
Modified by author.

Source: Simin Davoudi, Jenny Crawford and Abid Mahmood eds. 2009, Planning for climate change : strategies for mitigation and adaptation for spatial planners, Earthscan.

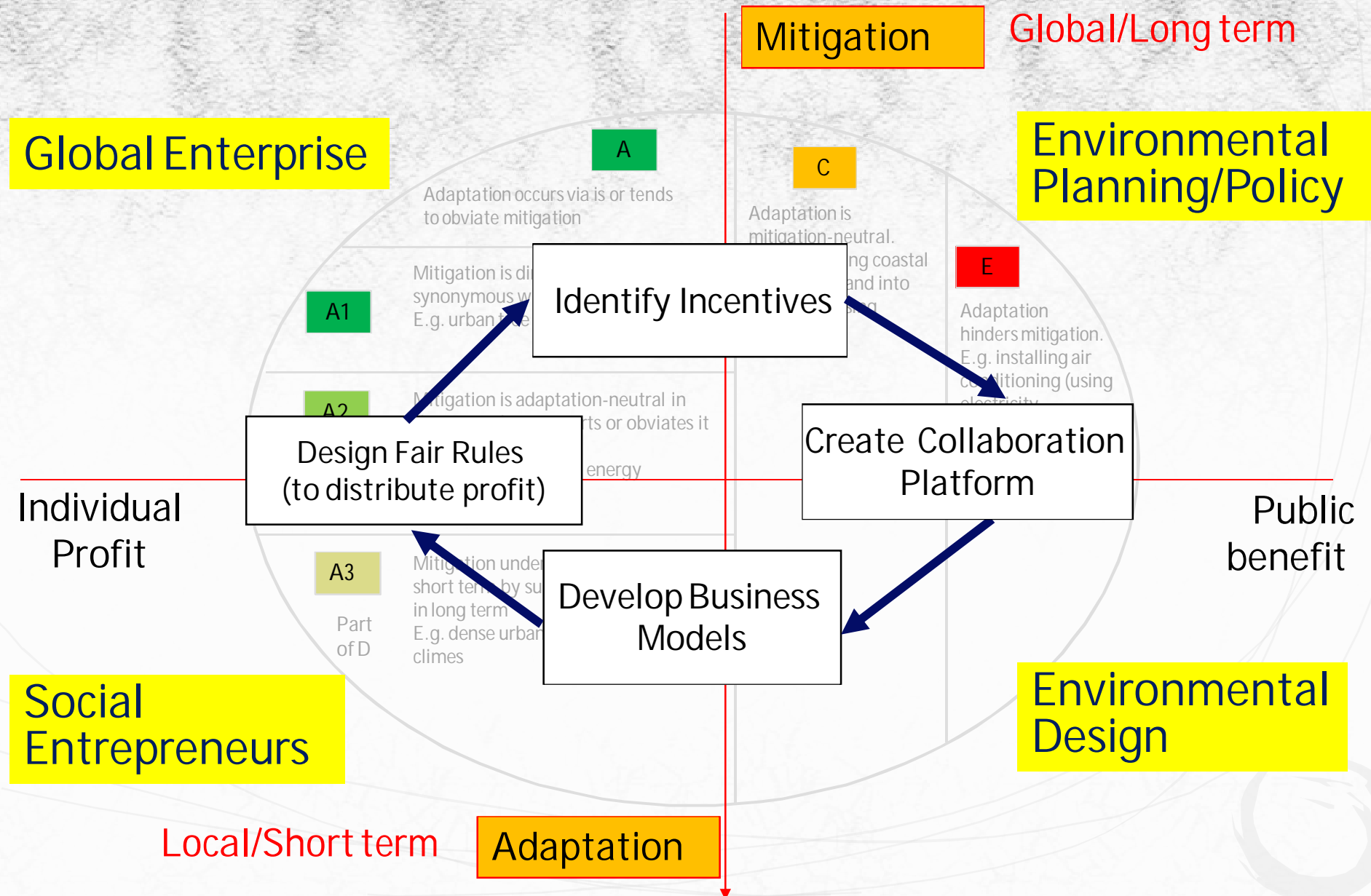
Incentive Model for Bridging Individual Profit/Public Benefit ~ Approach for Social Innovation ~



Keio's educational resources for Environmental Innovators



Approaches Towards the Best Mix of Mitigation and Adaptation under the Balance of Individual Profit/Public Interest



Graduate Program for the Creation of Future Society

Curriculum Structure

Global Engagement

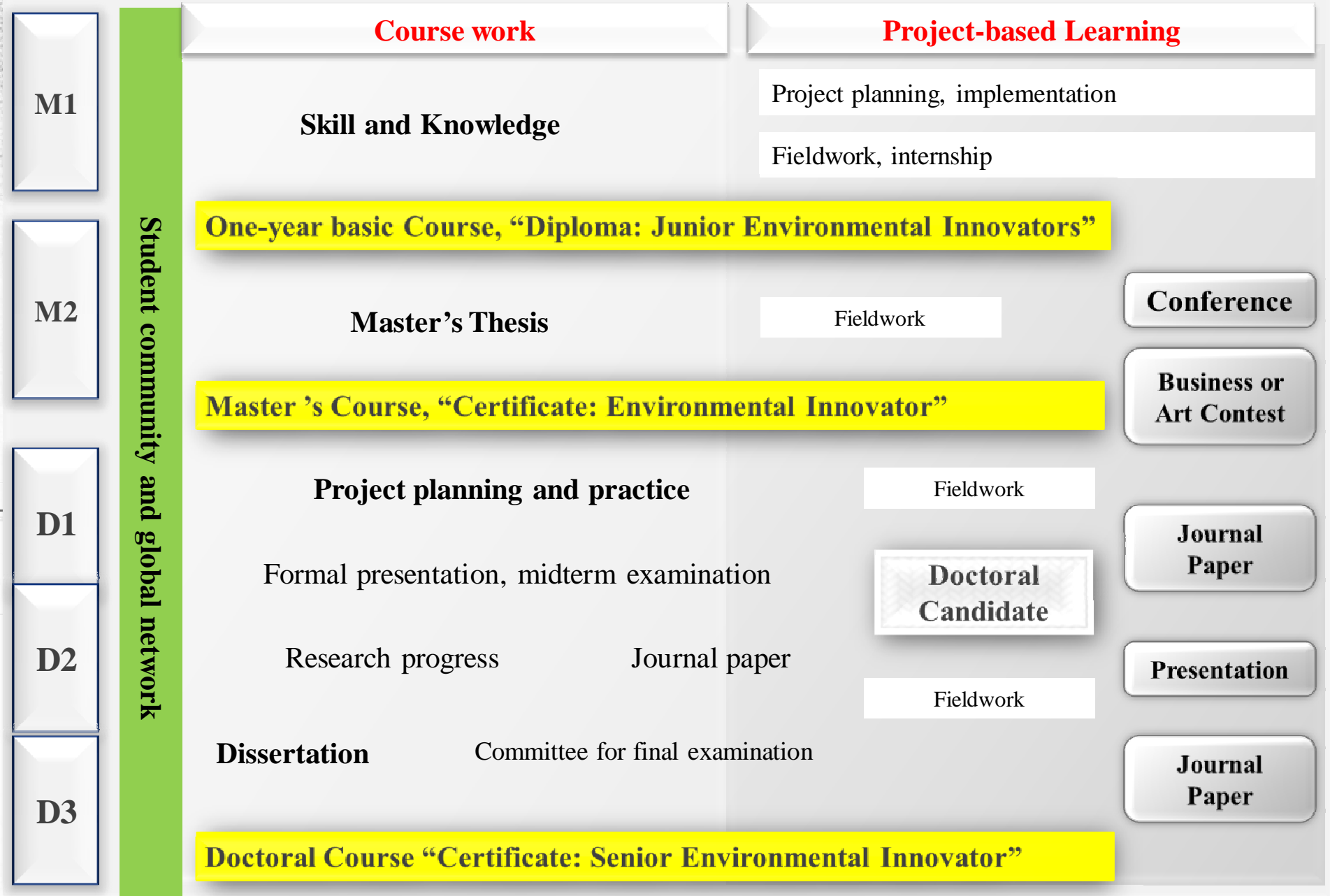
Carrying out collaborative research with overseas universities, research institutes and international organizations



Local Collaboration

Internships and fieldwork are enriched through co-operation with local governments and private enterprise

The Tracks of the Program



Pedagogy of the Program: Project Based Learning and PDCA management

1

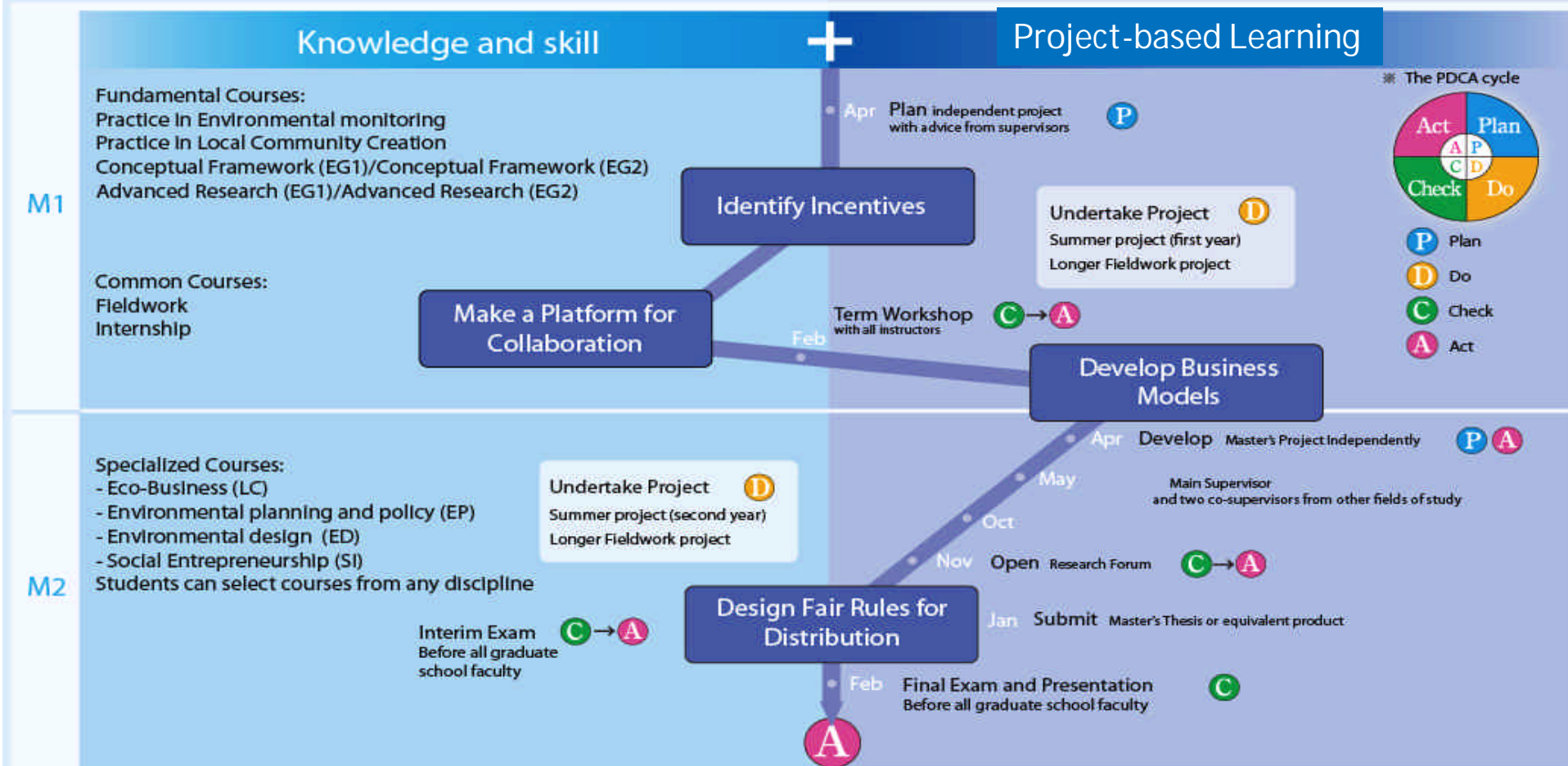
Acquiring multidisciplinary knowledge and skills related to environmental business, planning, policy and entrepreneurship

The educational structure offers a broad knowledge base in parallel with practical professional training

2

Cultivating entrepreneurship and leadership through development of real projects

Projects are planned independently, and progress guided by supervisors using the PDCA cycle.



Environmental Research and Practice in Keio Univ.

Mitigation

Global

Participate in the design of new resume for post-Kyoto

Adaptation

Contribute to the establishment of Asia and Pacific Adaptation Network

Local

Monitoring and investigate mountainous environment, Nepal and China

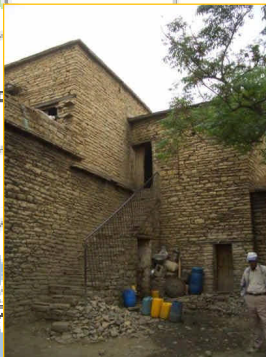


Practice of small scale A/R CDM project, China

中国
Urban planning of post-quake, China



Conservation of historical cities, Ethiopia



インドネシア

バブア
ニューギニア
New energy development and ecosystem conservation, Japan



Hot Mudslides monitoring with ICT, Indonesia





UNITED NATIONS ENVIRONMENT PROGRAMME

Programme des Nations Unies pour l'environnement

Programa de las Naciones Unidas para el Medio Ambiente

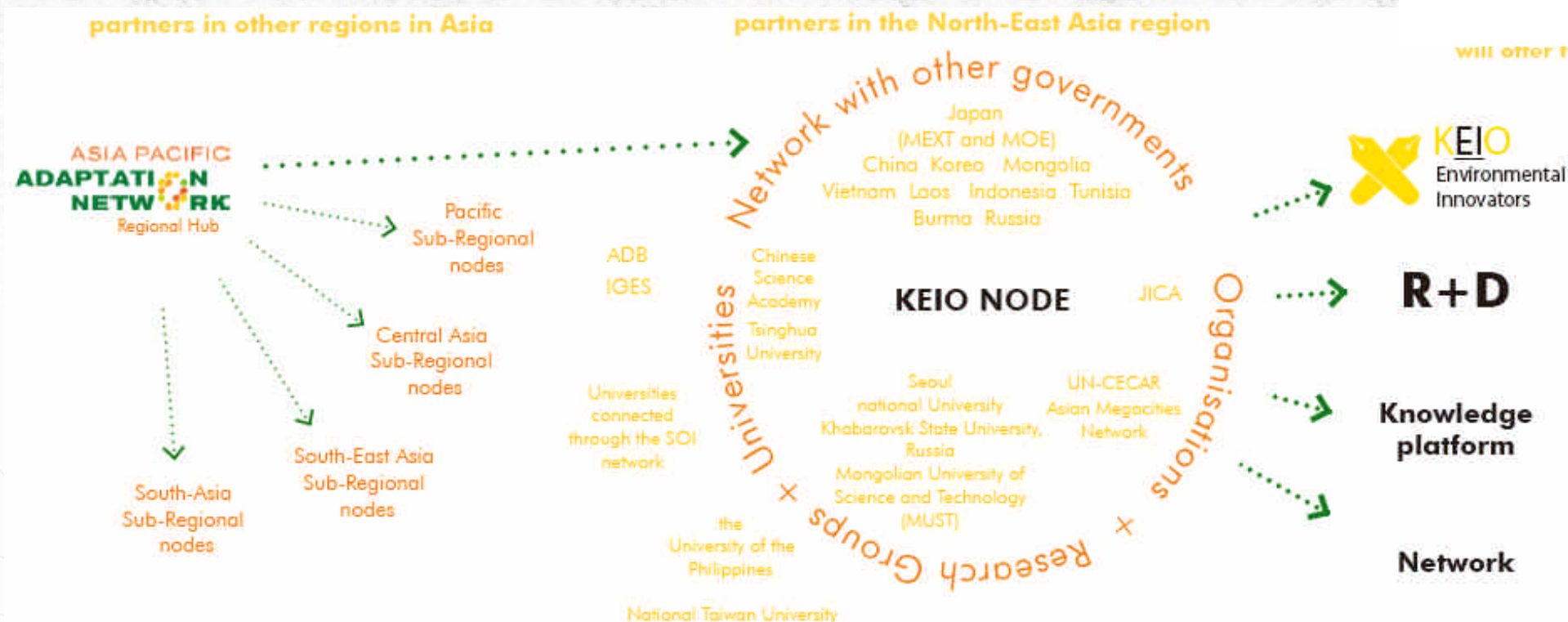
Программа Организации Объединенных Наций по окружающей среде

برنامج الأمم المتحدة للبيئة

联合国环境规划署



Asian Pacific Adaptation Network Regional Nodes @ Keio University

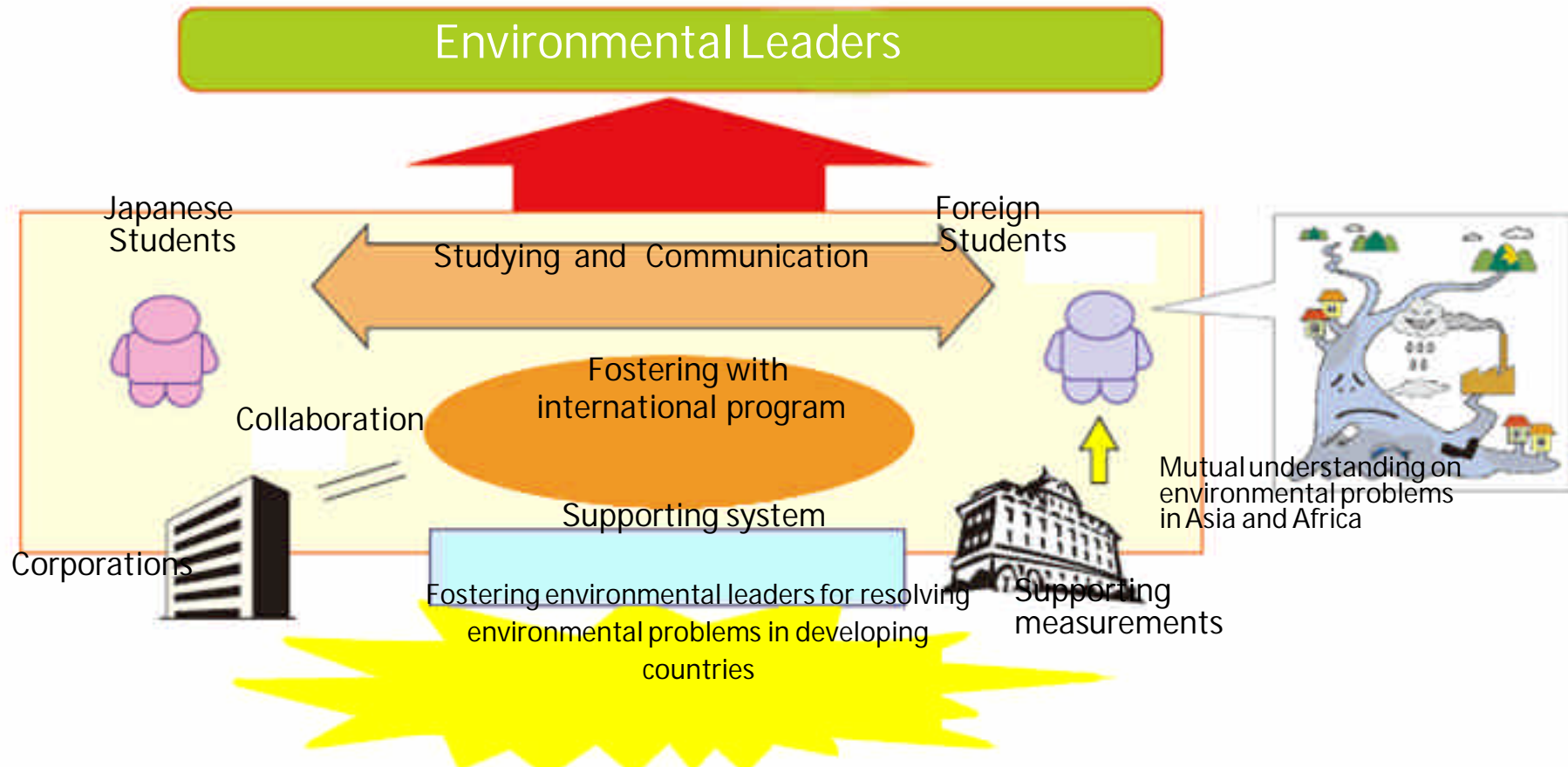


Collaboration Opportunities

- **Education**
 - Curriculum development and sharing internationally to climate change
 - Students exchange and co-education
 - Facility sharing for technical training, internship, fieldwork
- **Research**
 - Methodology development of mitigation and adaptation
 - Development of local and regional applications
 - Plan and implement of international research projects
 - Test/verify prototypes and innovative business models
- **Outreach**
 - Information/data collection, sharing and distribution
 - International environmental communication
- **Networking**
 - Students/Young researchers network
 - Co-organizing workshop and conference
 - Partnership building among companies, institutions and NPO/NPO

Acknowledgement

- This program is granted by the Fund for the Promotion of Science and Technology, The Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan.
- We are grateful to Japanese Science and Technology Agency(JST) of MEXT for their great help of project management.





International Program For Environmental Innovators

Studying Climate Change in Japan, Acting as Environmental Innovators for Asia and Africa

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search...

検索

Study

The EI Program
Faculty
Applications and fees
Student Aid + Scholarships

Research

Research Projects
Publications

Keio Life

Student Support
Keio University
Shonan Fujisawa Campus
Graduate Schools

Collaborations

Symposium
Links

Questions

FAQ
Contact us
Brochure
Video Message

KEIO Environmental Innovators Program

A unique graduate school devoted to research on climate change mitigation and adaptation. Fieldwork balances bookwork in a project-based curriculum that includes...

[more...](#)

SFC Course
Calendar

Spring
Semester

News

[Recent Updates](#)

First Steps to going off the grid



Mori Studio

Like much of Japan the SFC campus was strongly affected by the rolling blackouts that went into effect after the series of disasters struck the country on March 11 this year.



<http://ei.sfc.keio.ac.jp>