



Building resilient and low carbon society in Vietnam by implementing Intended Nationally Determined Contributions (INDC) and Joint Crediting Mechanism (JCM) projects

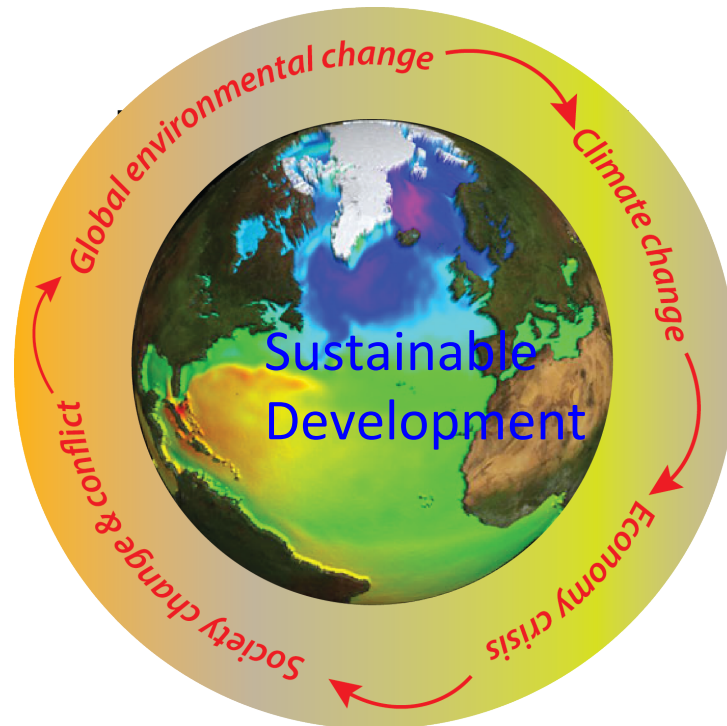
Prof. Dr. Mai Trong Nhan, Dr. Nguyen Tai Tue, Dr. Tran Dang Quy
Vietnam National University, Hanoi

Contents

1. Resilient and low carbon society
2. Intended Nationally Determined Contributions (INDC)
3. Low carbon (LC) society development in Vietnam
4. Joint Crediting Mechanisms development in Vietnam contributing to implementing INDC and LCS
5. Progress of the Networking activities
6. Promoting the 3E nexus and JCM in Vietnam

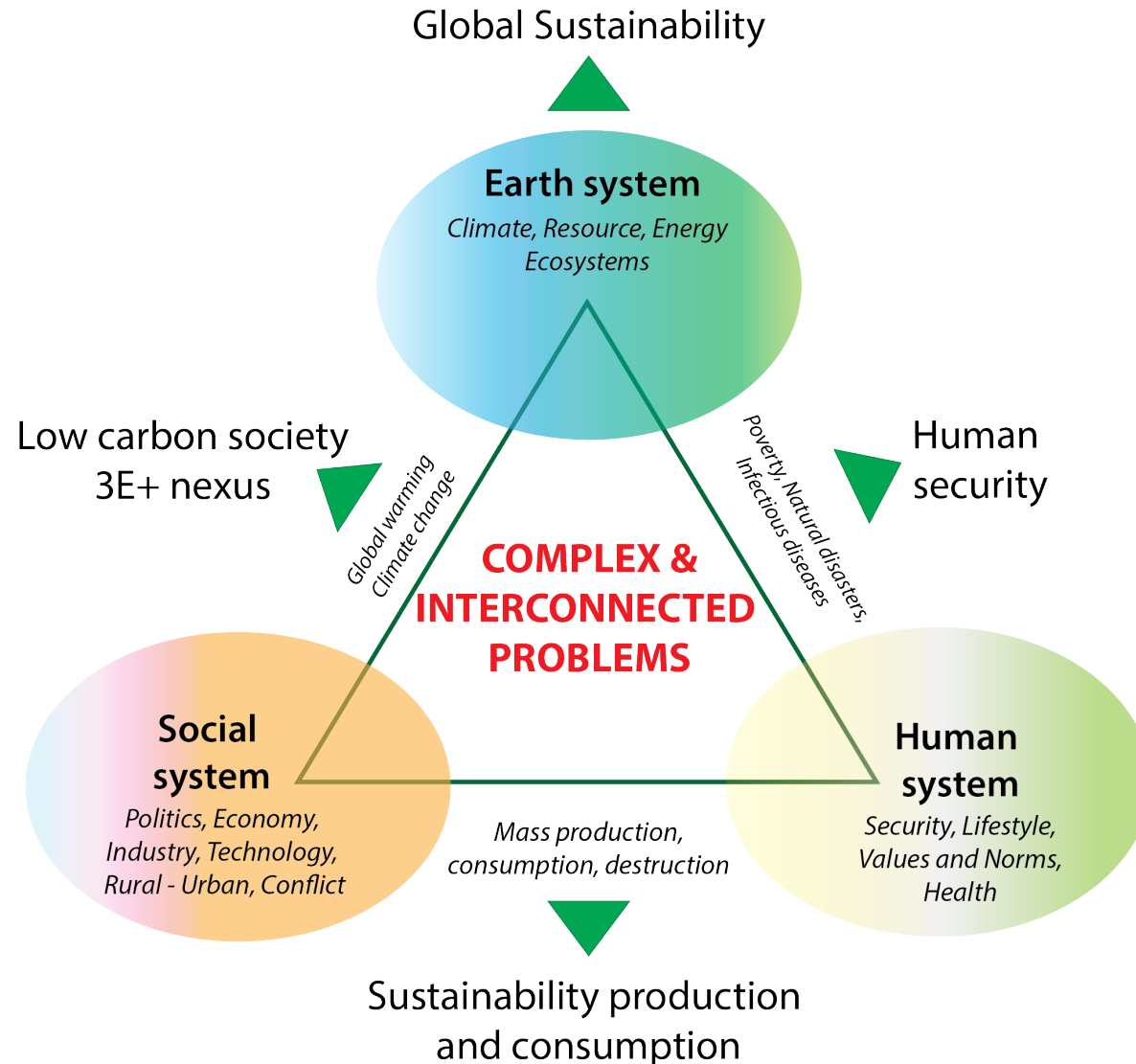
I. Resilient and low carbon society

1.1. Climate change is threatening sustainable development



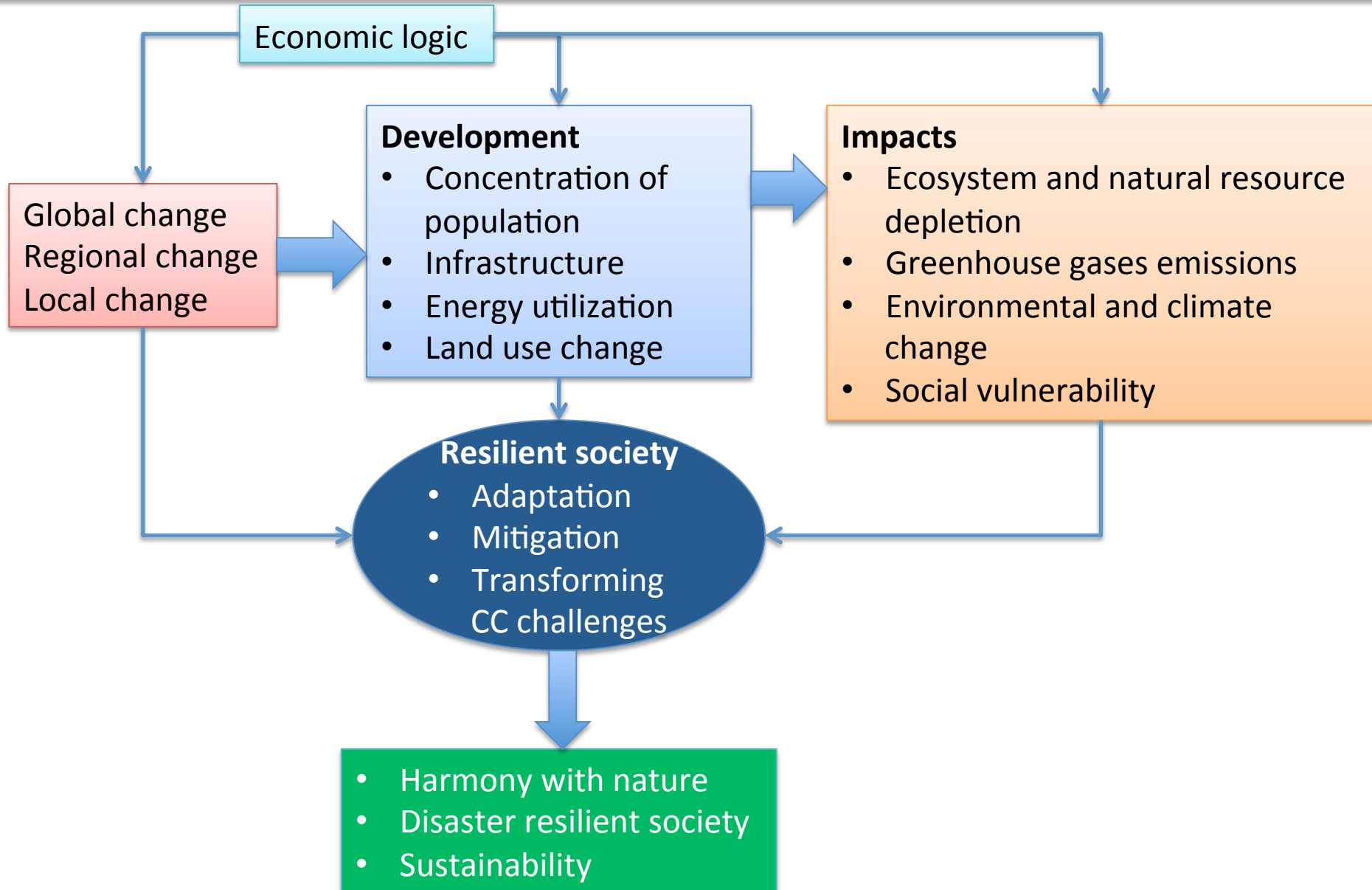
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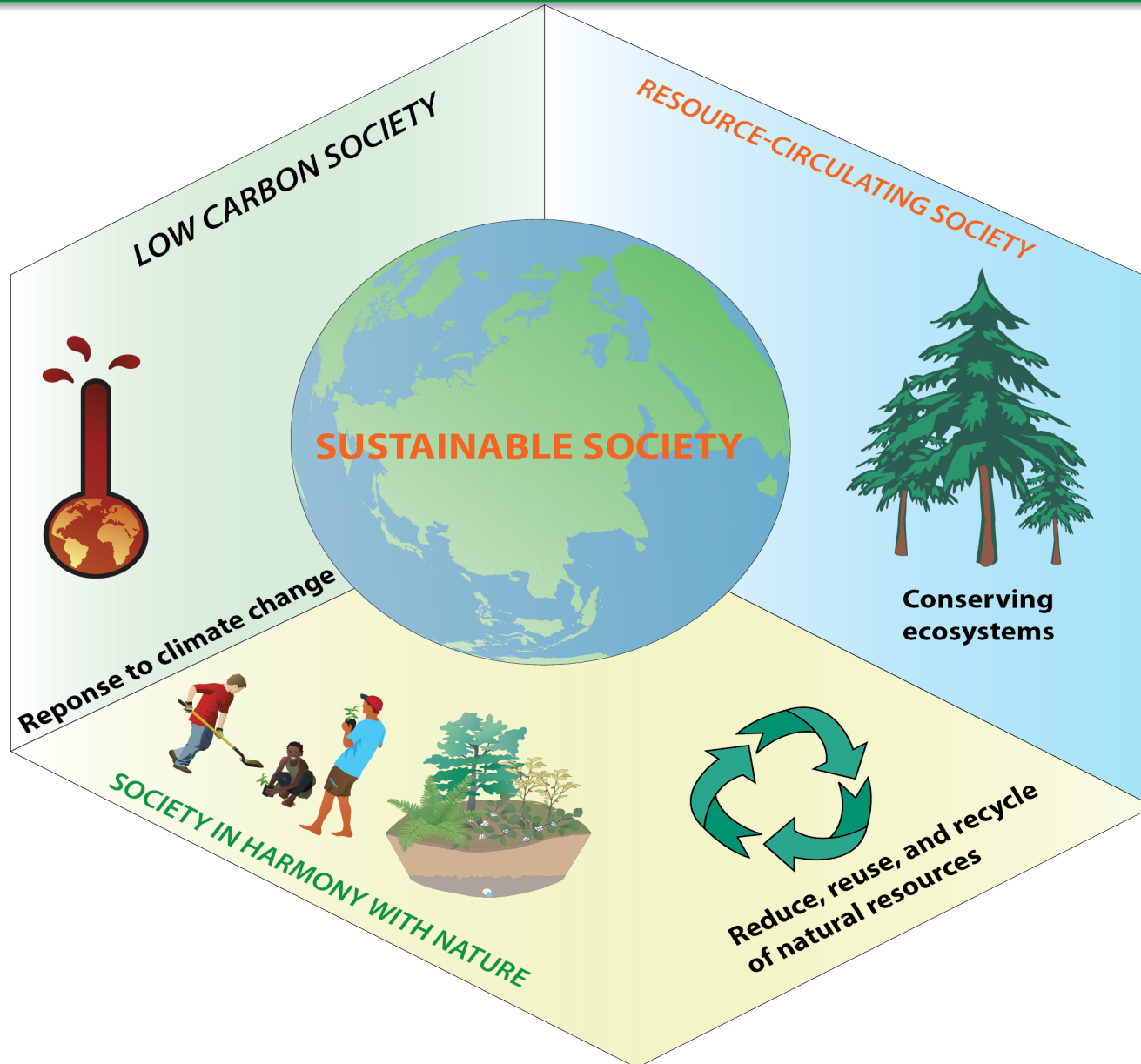
I. Resilient and low carbon society

1.2. What is a resilient society?



I. Resilient and low carbon society

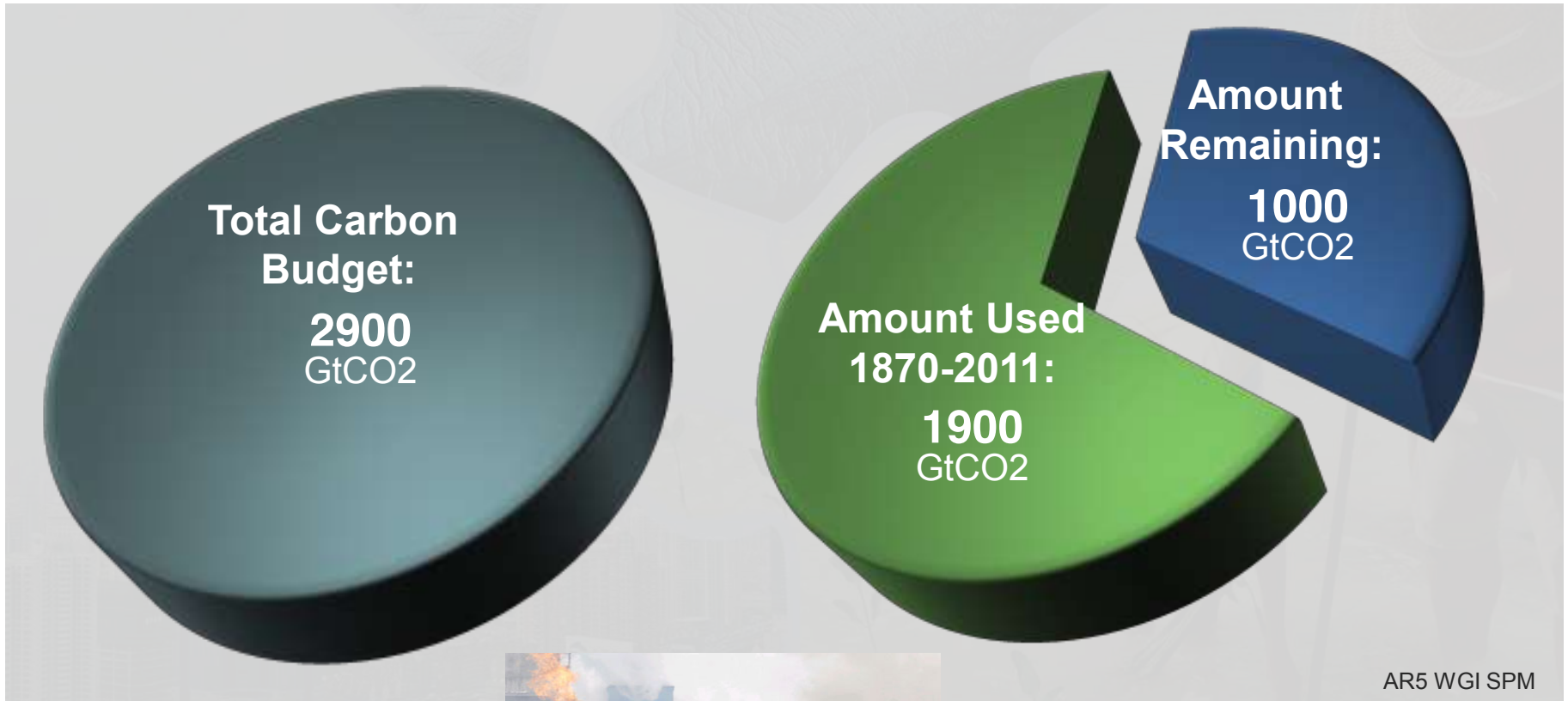
1.2. What is a resilient society?



I. Resilient and low carbon society

I.3. Why low carbon society?

The window for action is rapidly closing



1 GtCO₂ = 10¹⁵ g CO₂

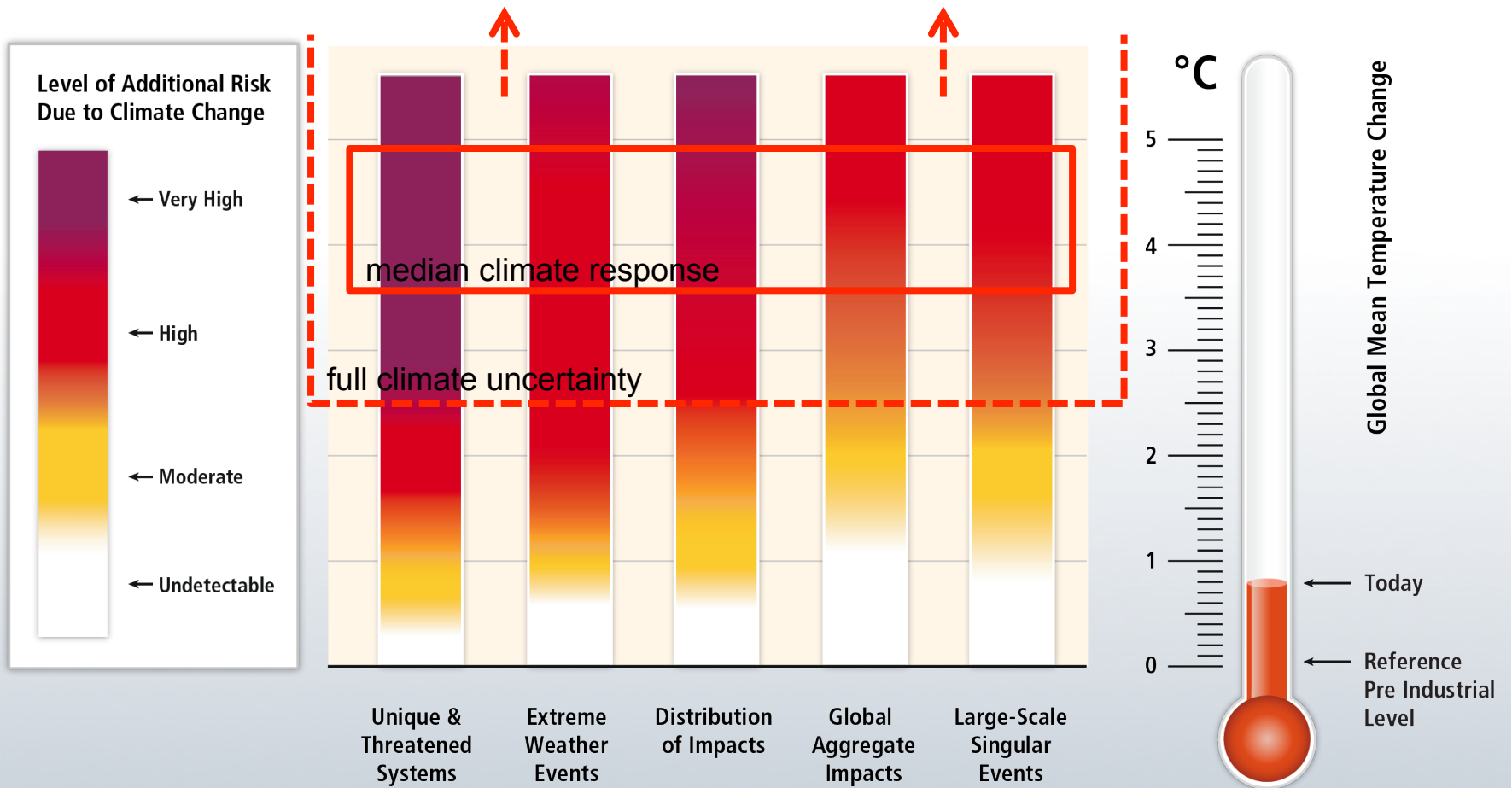


(IPCC-COP20)

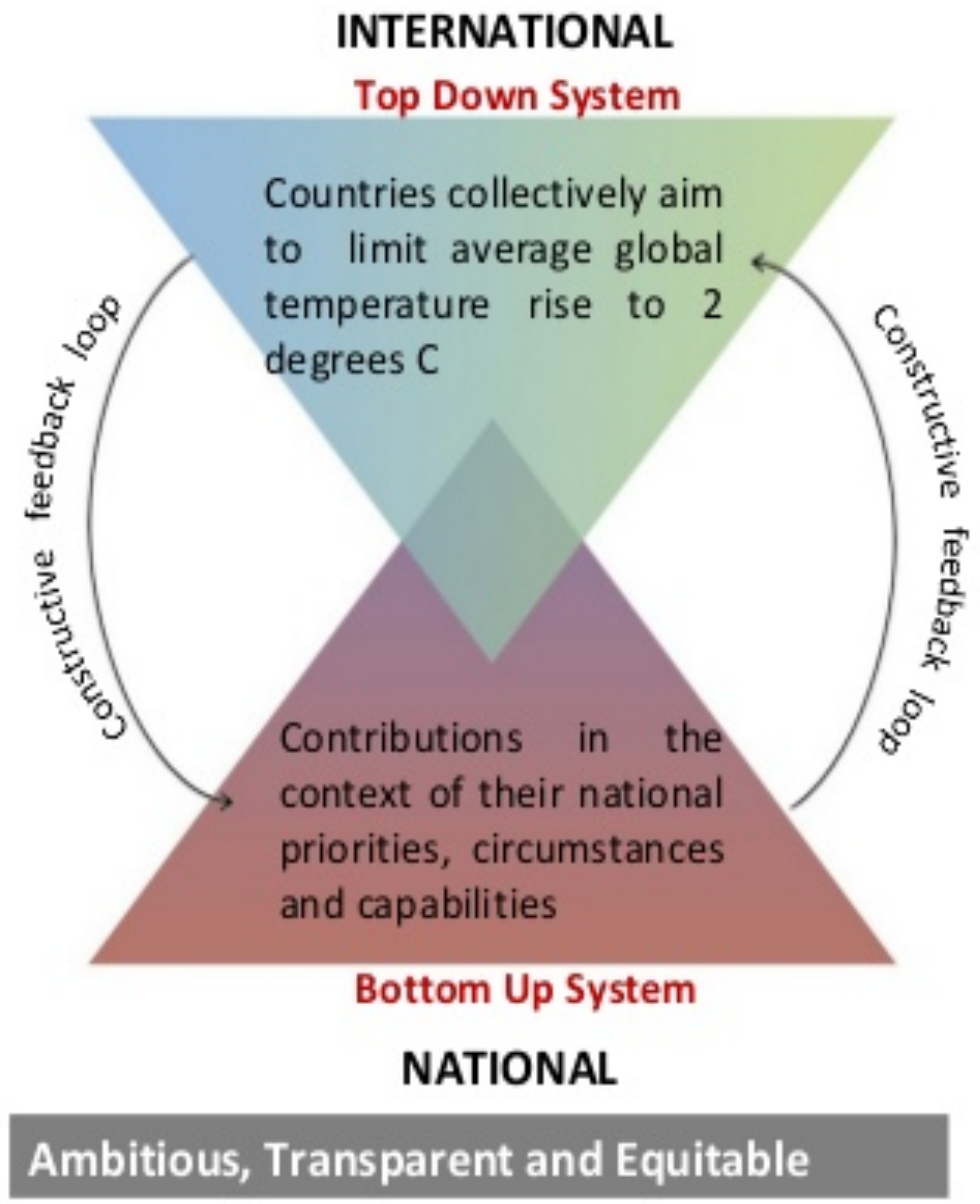
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I.3. Why low carbon society?

The severe consequences of global warming

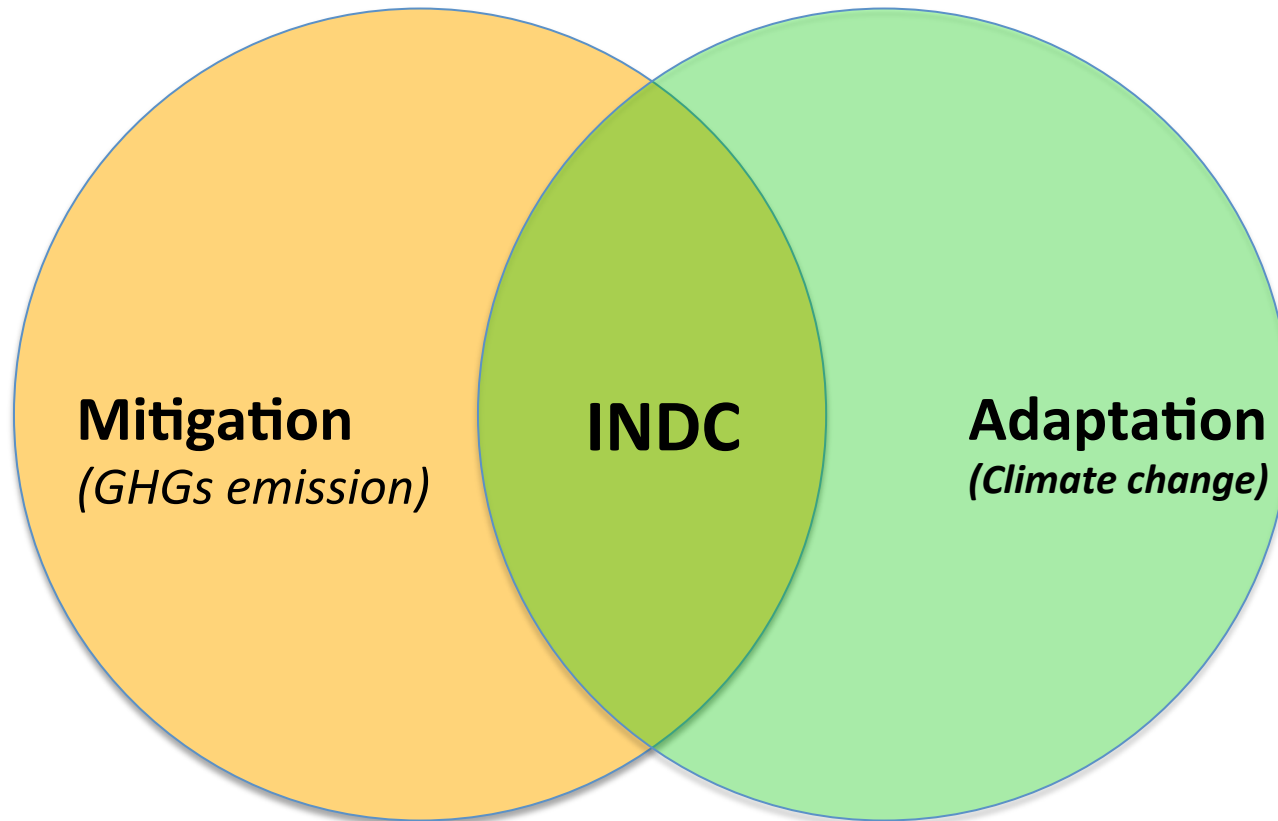


II. Intended Nationally Determined Contributions (INDC)



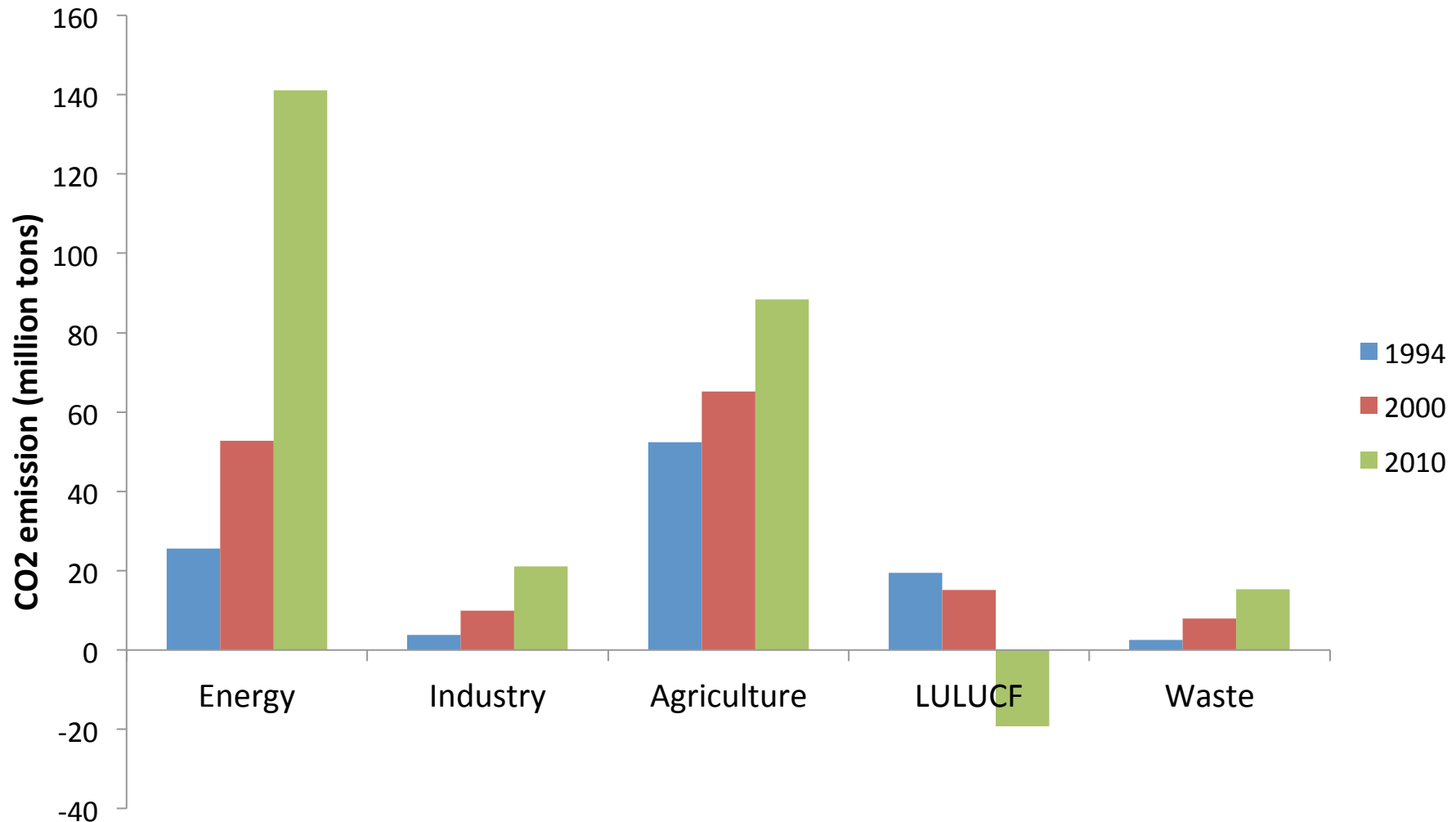
II. Intended Nationally Determined Contributions (INDC)

2.1. INDC of Vietnam



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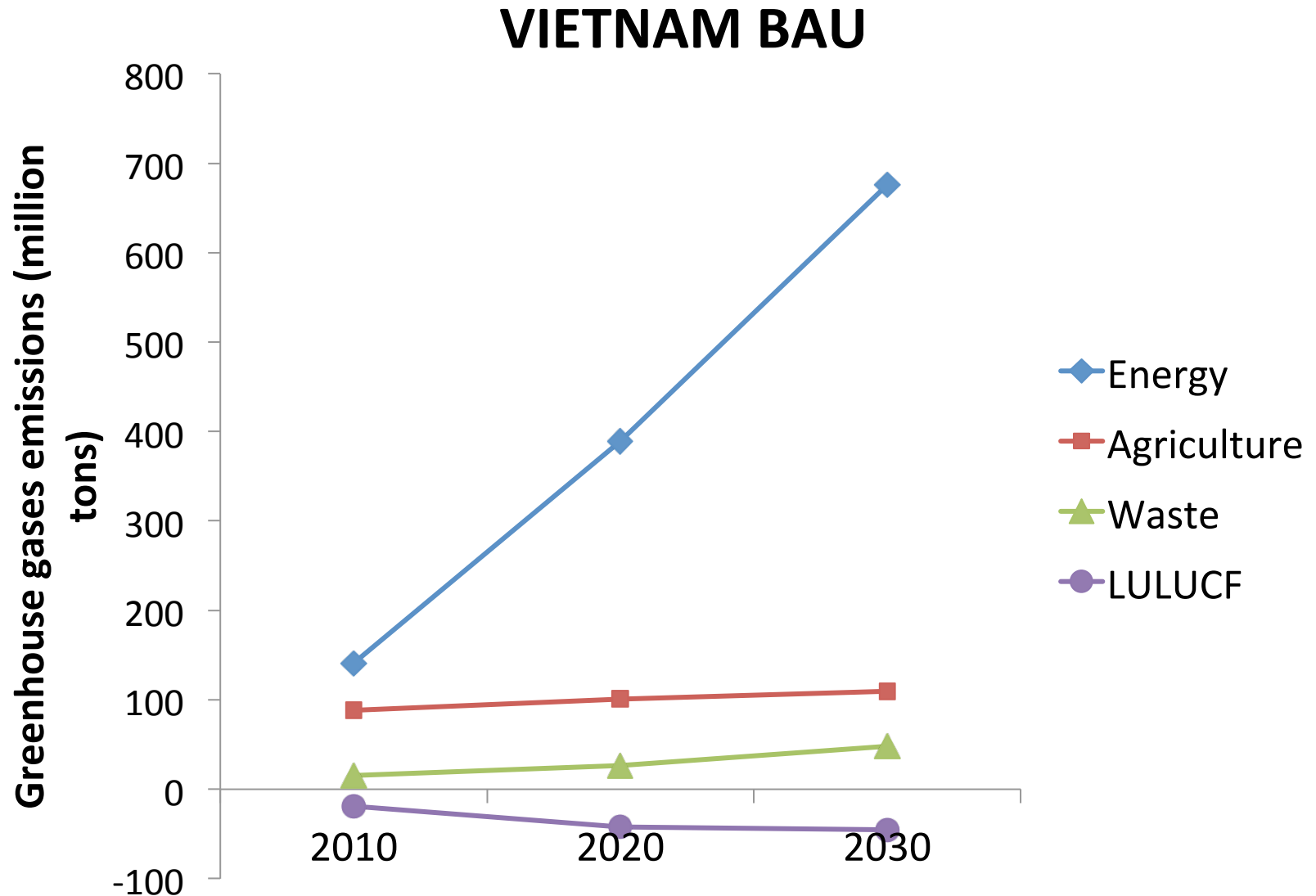
2.1. INDC of Vietnam



Greenhouse gases emission status of Vietnam

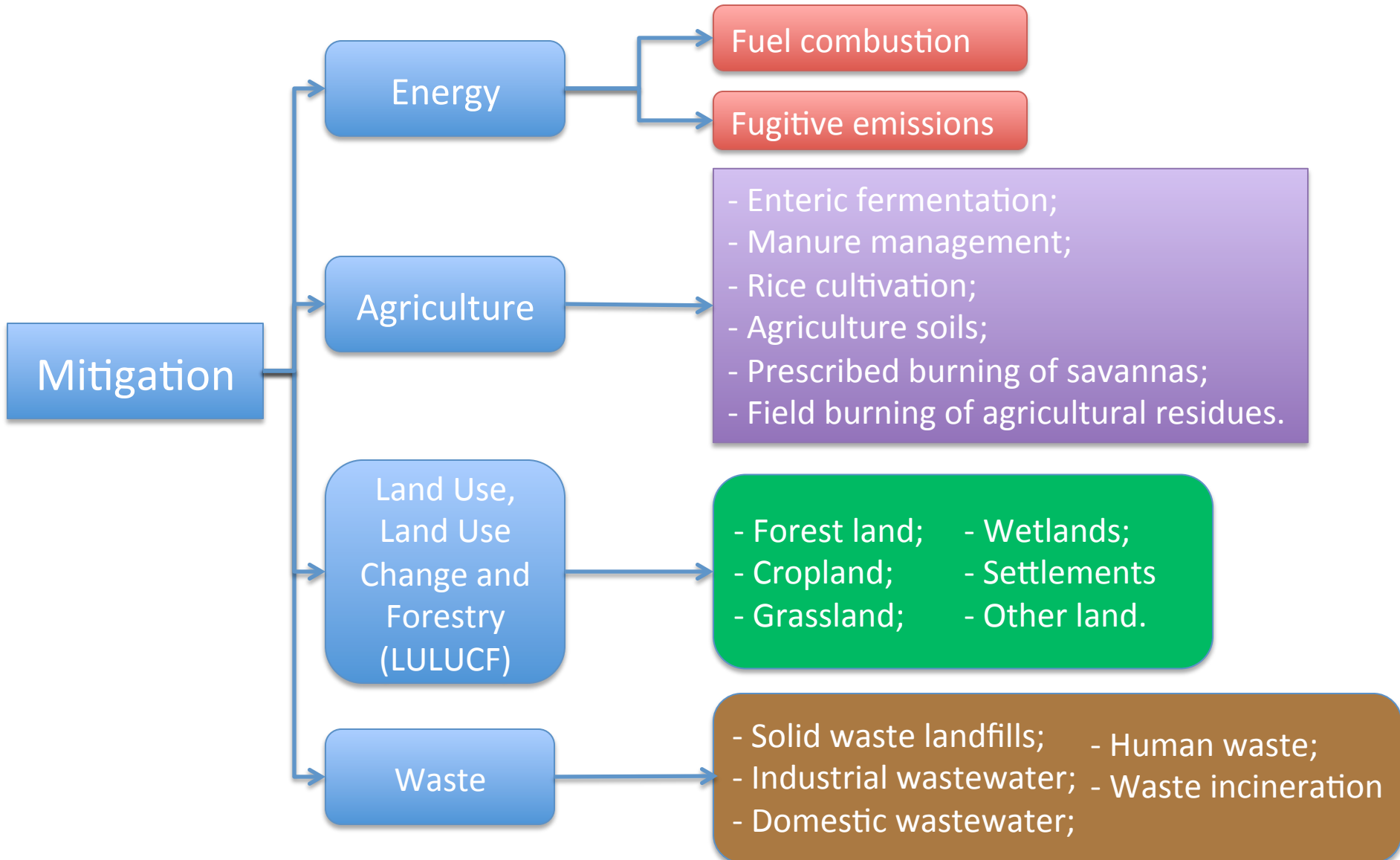
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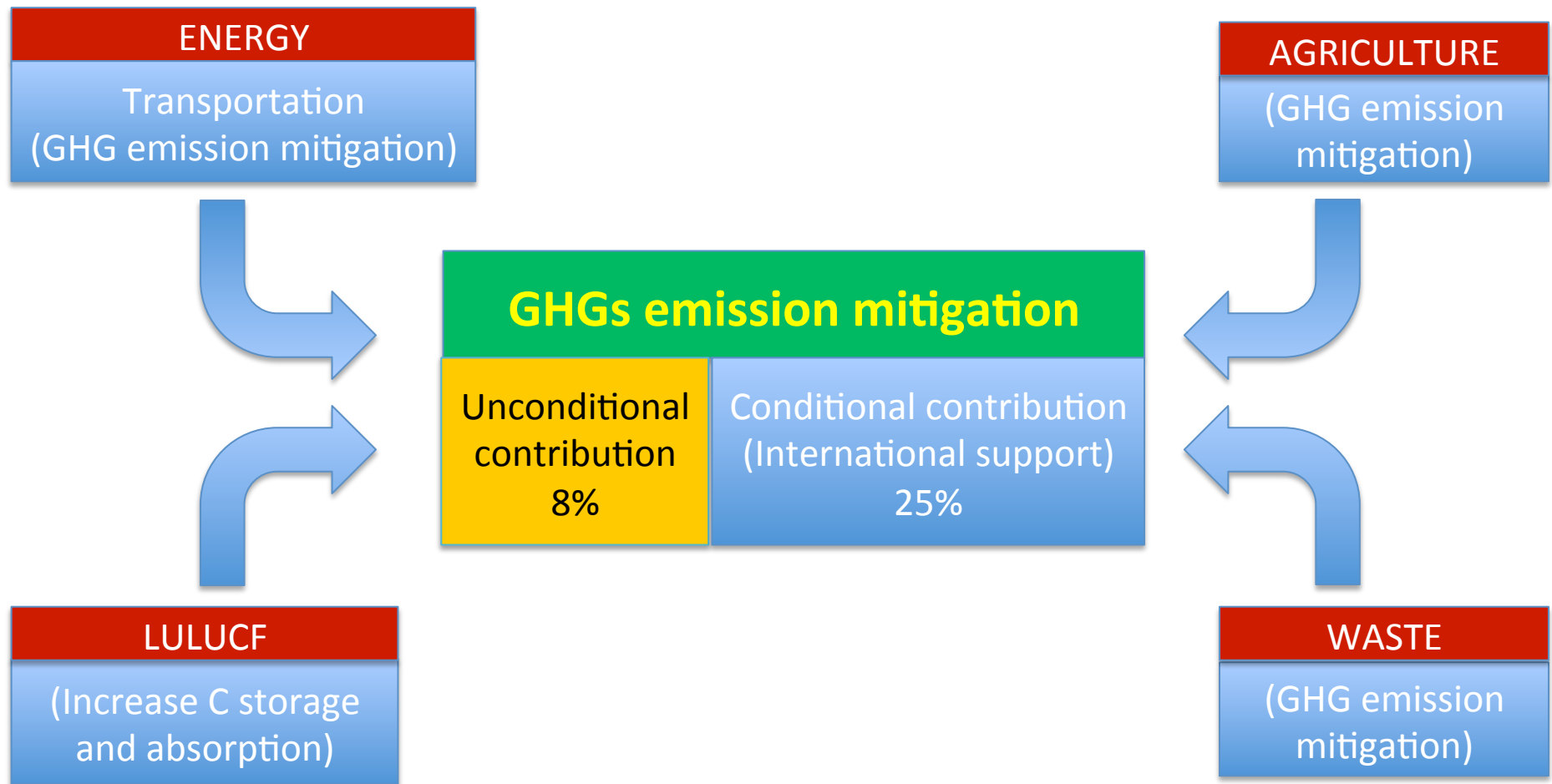
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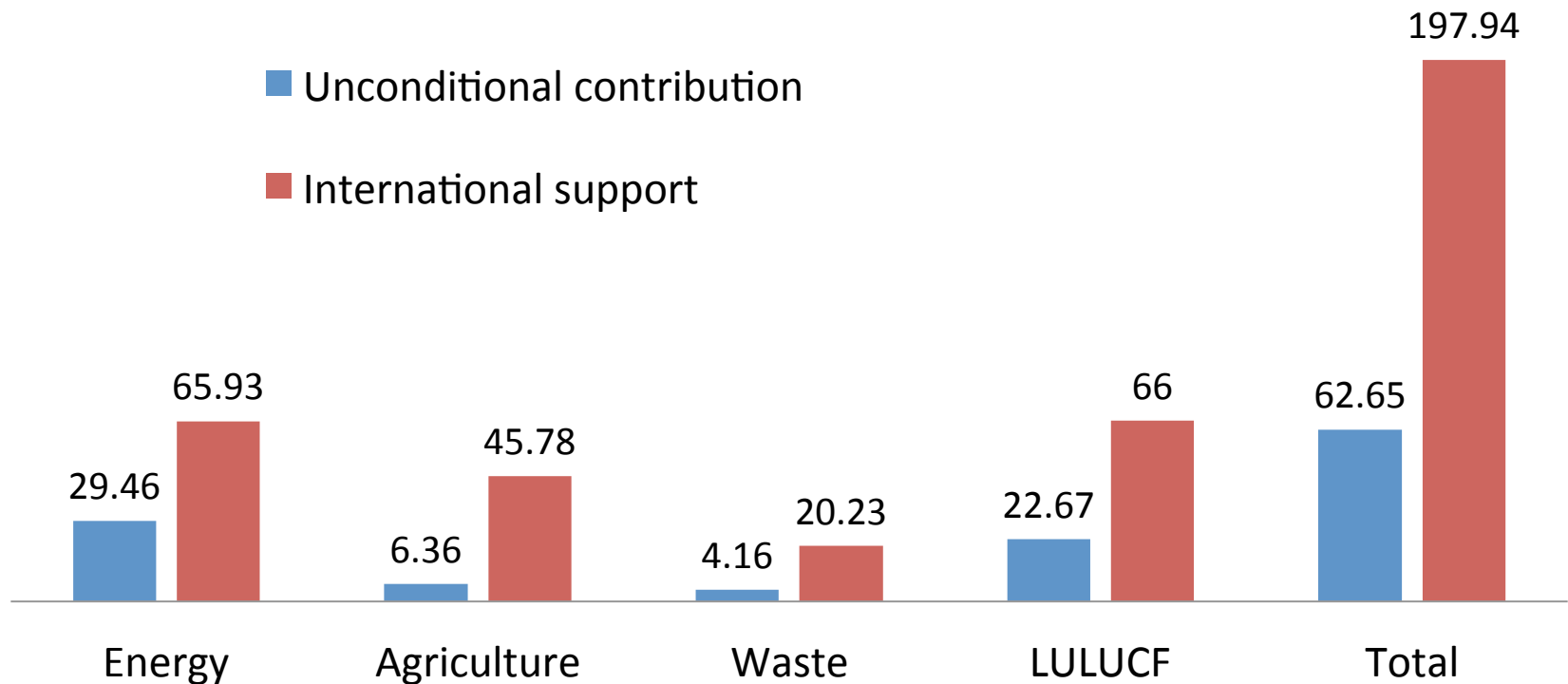
2.1. INDC mechanisms in Vietnam – Greenhouse gases mitigation



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2.1. INDC mechanisms in Vietnam – Greenhouse gases mitigation

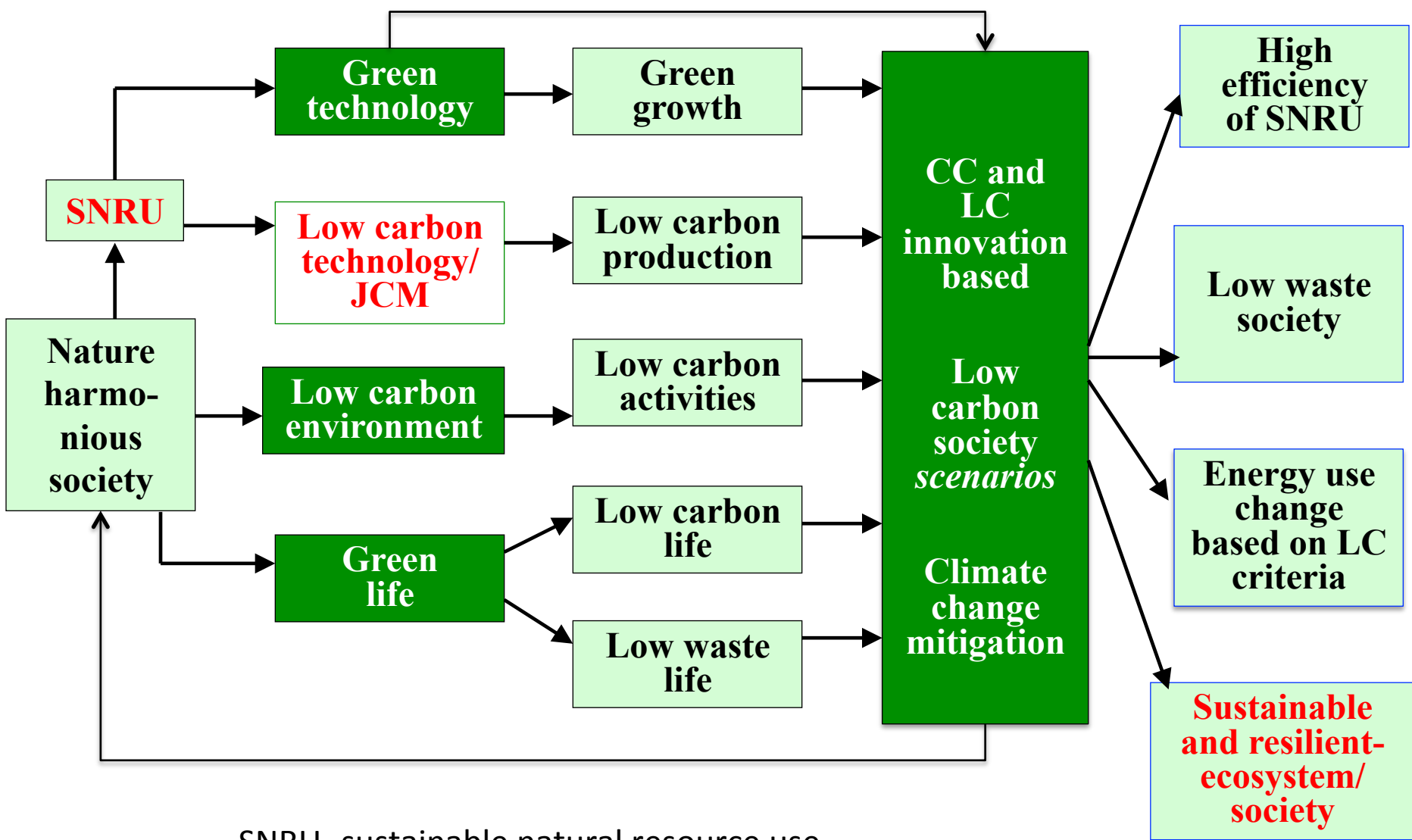
TOTAL GHGS REDUCTION (MILLION TONS CO₂)



Important roles of International support for INDC of Vietnam

III. Low carbon (LC) society development in Vietnam

3.1. Low carbon society framework



SNRU- sustainable natural resource use

III. Low carbon (LC) society development in Vietnam

3.2. COP 21, Paris agreement

COP 21, Paris agreement

MITIGATION

- Much greater emission reduction efforts will be required than those associated with INDC in order to hold the increase in the global average temperature to below 2 °C above pre-industrial levels by reducing emissions to **40 gigatonnes** or to 1.5 °C above pre-industrial levels

FINACIAL

- Financial resources provided to developing countries should enhance the **implementation of both mitigation and adaptation**
- Developed countries intend to continue their existing collective mobilization goal through 2025 in the context of **meaningful mitigation actions and transparency on implementation**
- Prior to 2025 shall set a new collective quantified goal from a floor of **USD 100 billion per year**, taking into account the needs and priorities of developing countries;

IV. Joint Crediting Mechanisms development in Vietnam

4.1. Potential needs for JCM

Green technology



Energy efficiency



REDD+








Low carbon transportation



IV. Joint Crediting Mechanisms development in Vietnam

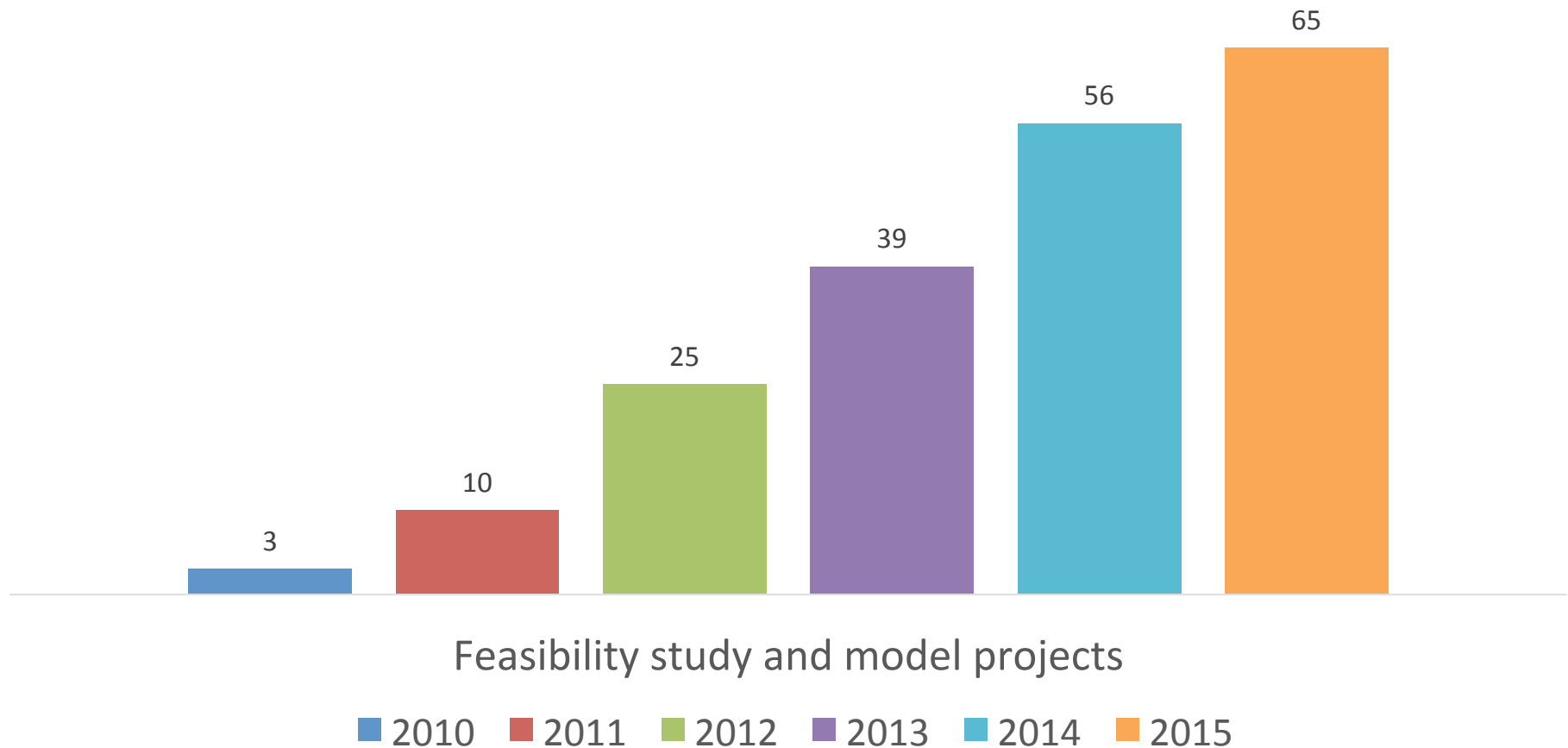
4.2. Progress of JCM development in Vietnam

-  **18/9/2013** **First Joint Committee Meeting**
Signing Ceremony for adoption of the “Guidance for the Implementation of the Joint Crediting Mechanism” and the “Joint Crediting Mechanism Rules of Procedures for the Joint Committee”
Discussion on other rules and guidelines for adoption
-  **17/2/2014** **Second Joint Committee Meeting**
Adopted rules and guidelines to be followed for the pilot phase of the JCM implementation between Vietnamese side and Japanese side
Discussion on the potential projects
-  **14/1/2015** **Third Joint Committee Meeting**
Adopted 3 proposed methodologies
Discussion on proposed revised “Joint Crediting Mechanism Rules of Procedures for the Joint Committee”, “Joint Crediting Mechanism Guidelines Project Cycle Procedures” and “Joint Crediting Mechanism Guidelines for Designation as a Third-Party Entity”
-  **4/8/2015** **Fourth Joint Committee Meeting**
1st JCM registered project
Discussion on proposed amendments to the “Guidance for the Implementation of JCM”, “JCM Credits Issuance Request Form” and “JCM Project Cycle Procedures”
-  **8/12/2015** **3rd High level meeting in COP21**
2nd JCM project registered
Vice Minister Tran Hong Ha attended the High-level meeting, meeting and taking with Minister of Environment Japan and representatives of new partner countries of the JCM (Arabia Saudi, Chile, Myanmar and Thailand)

IV. Joint Crediting Mechanisms development in Vietnam

4.2. Progress of JCM development in Vietnam

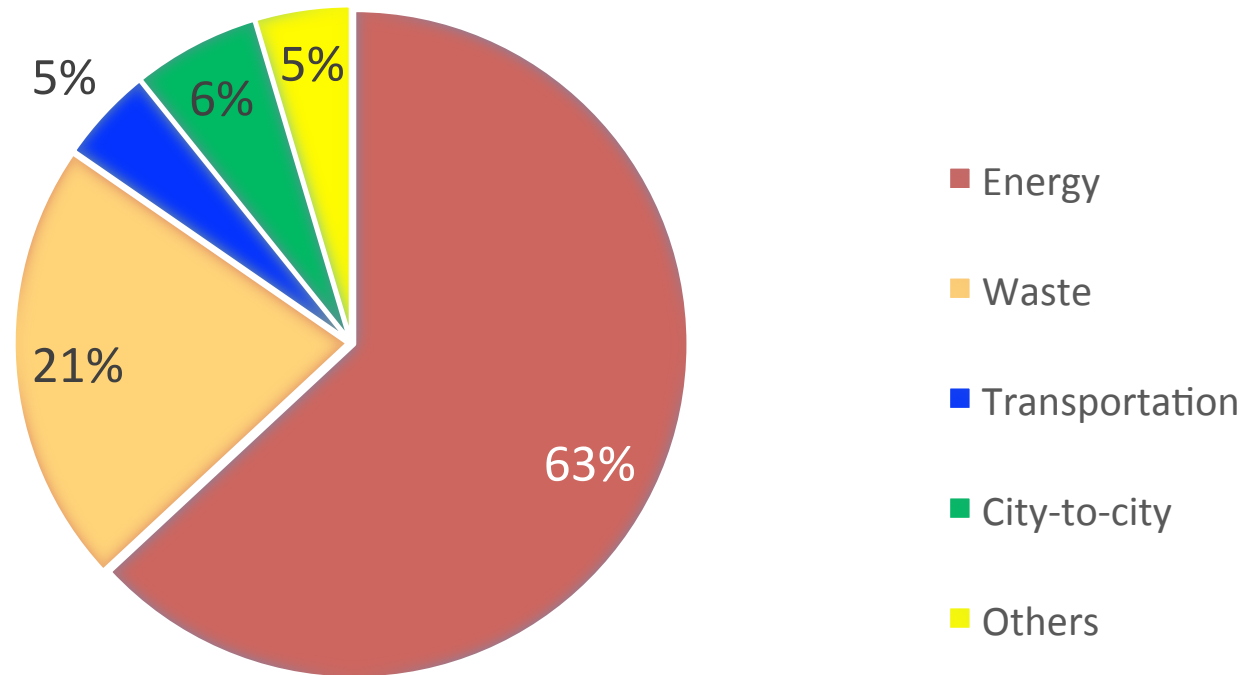
NUMBER OF JCM FEASIBILITY STUDIES, PLANNING STUDIES, MODEL AND DEMONSTRATION PROJECTS



IV. Joint Crediting Mechanisms development in Vietnam

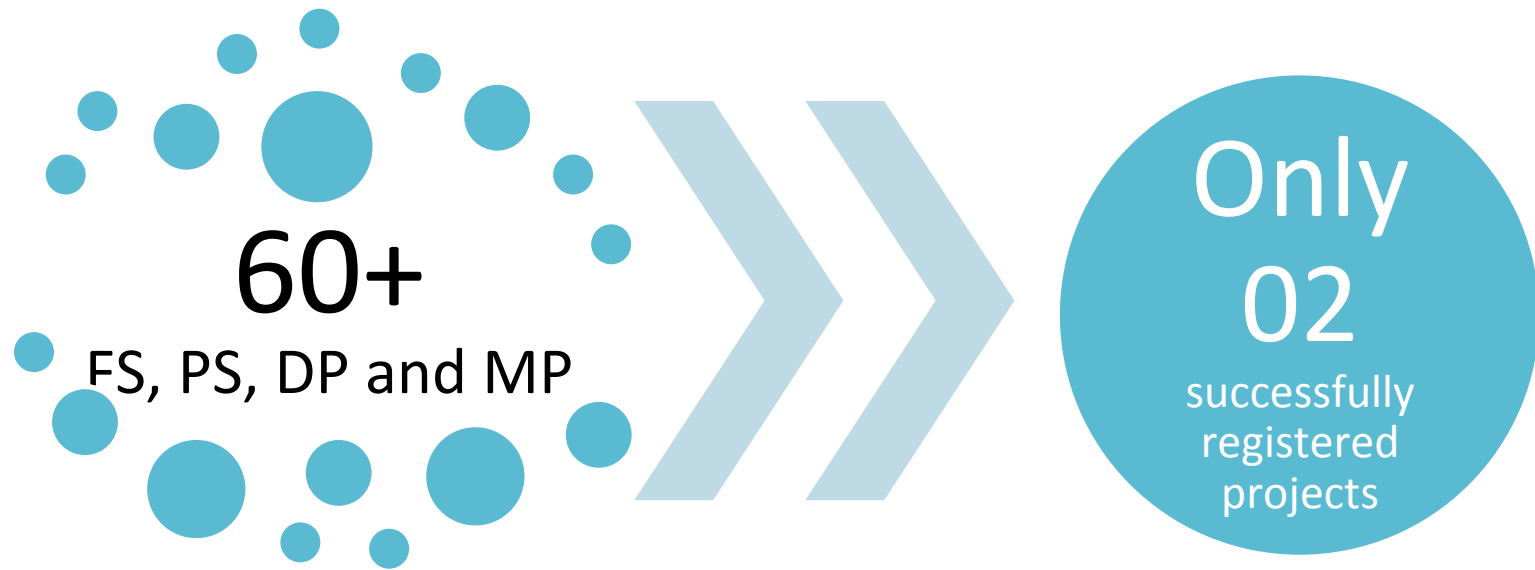
4.2. Progress of JCM development in Vietnam

JCM PROJECTS BY SECTOR



IV. Joint Crediting Mechanisms development in Vietnam

4.2. Progress of JCM development in Vietnam



*VN001 “Eco-Driving by Utilizing Digital Tachograph System”- **Transportation***

*VN002 “Promotion of **green hospitals** by improving efficiency / environment in national hospitals in Vietnam”*

IV. Joint Crediting Mechanisms development in Vietnam

4.3. Advantages for JCM development in Vietnam

- **International**

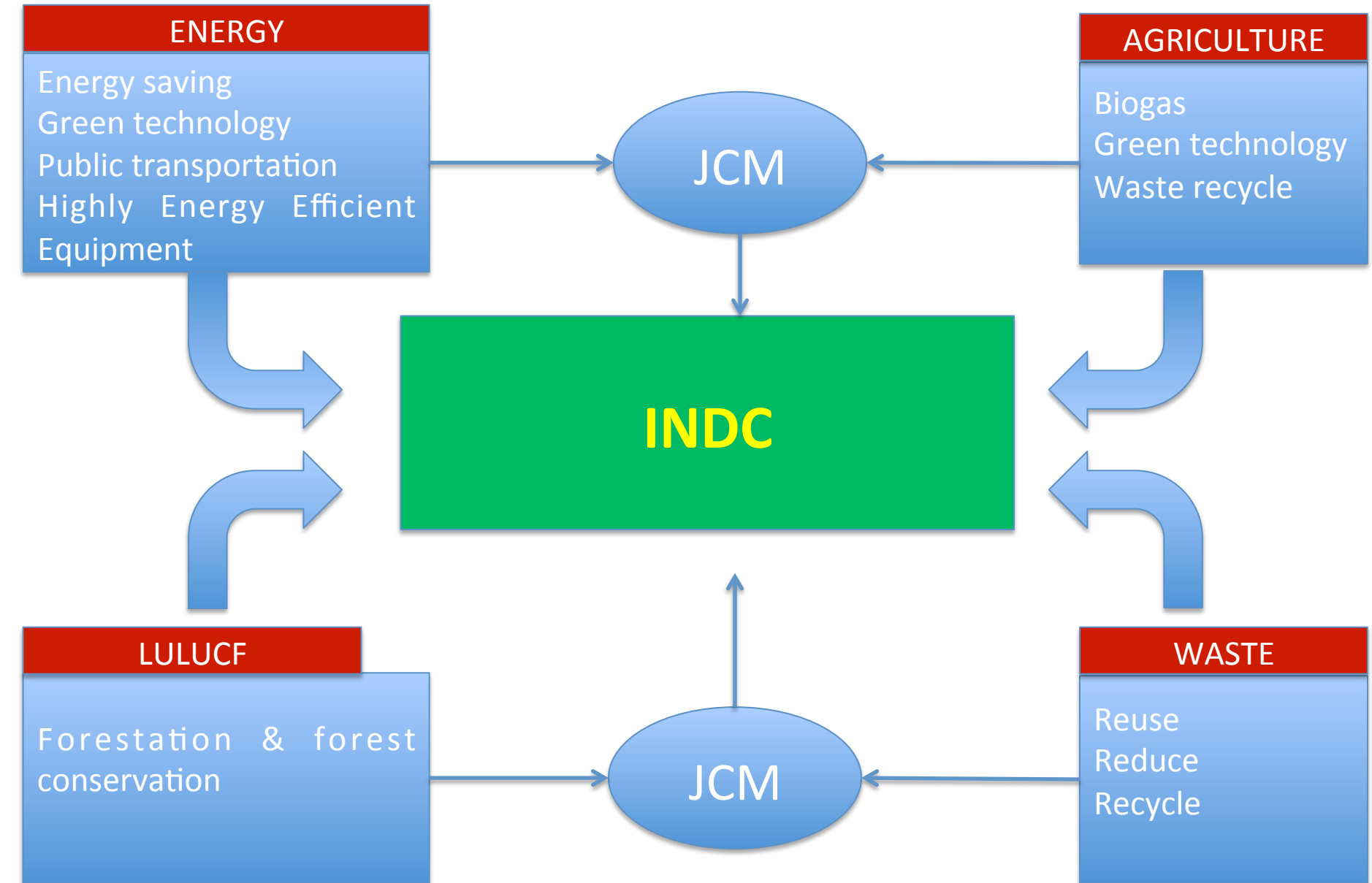
- Paris Agreement adopted, in which all Party countries have responsibilities to reduce GHG emissions;
- Support for mitigation actions in developing countries;
- Number of countries taking part in JCM is increasing, especially in the South East Asia (6/10 countries)
- Difficulties for CDM carbon credit trading, while investment cost for JCM demonstration and model projects by the Japanese Government is estimated at 100 USD/tonnes of CO₂.

- **National**

- Policies for restructuring the economy towards green growth;
- GHG emission reduction activities prioritized and will become compulsory for the business sector post-2020;
- Vietnam's experience in implementing CDM projects;
- INDC, NAMA model projects and feasibility studies.
- Co-benefits: CO₂ reduction, energy saving, green growth

IV. Joint Crediting Mechanisms development in Vietnam

4.3. Advantages for JCM development in Vietnam



IV. Joint Crediting Mechanisms development in Vietnam

4.4. Disadvantages for JCM development in Vietnam

- Difficulties
 - JCM relatively **new** and therefore, unfamiliar;
 - Unproven JCM **technical guidelines**;
 - **Mechanism for distributing credits still unclear**, esp. after converted into tradable credit type.
 - Business on mitigation, including JCM takes has **low profit, taking long time** to get revenue to pay back
 - Lack of **information** for Vietnam's enterprises, leading to inactive participation

V. Progress of the Networking activities

5.1. The second JCM workshop is implemented by NFP (14/12/2015)



V. Progress of the Networking activities

5.1. The second JCM workshop is implemented by NFP

Objectives of the workshop

- 1) to discuss on the **potential of JCM** projects for sustainable development of low carbon societies in Vietnam under the **INDC** and Energy-Ecosystem-Environment (3E) Nexus platform;
- 2) to improve the consulting and **know-how for JCM project proposal** development;
- 3) to exchange their experiences and ideas towards creating actual JCM projects in Vietnam

V. Progress of the Networking activities

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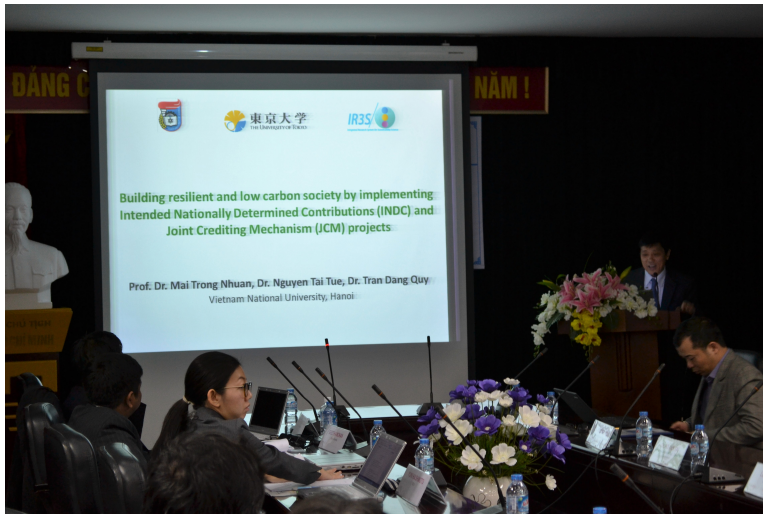
Presentations in second JCM workshop in VNU University of Science on December, 14th, 2015

1. Joint Crediting Mechanism (JCM) & Intended Nationally Determined Contributions **INDC** in Vietnam (**Prof. Dr. Mai Trong Nhuan, Vietnam National University, Hanoi**)
2. **Greenhouse gases reduction measures** in Vietnam (**Dr. Luong Quang Huy, Department of Hydrology, Meteorology and Climate Change**)
3. **Energy, Environment and Ecosystems (3E) Nexus Initiative and Joint Crediting Mechanism (JCM)** projects for sustainable low carbon development in Asia- Pacific region (**Prof. Dr. Hirotaka Matsuda – The University of Tokyo**)
4. Proposal Writing Lecture (VIDEO) (**Prof. Kensuke Fukushi – The University of Tokyo**)
5. Introduction to **successful JCM projects** in Vietnam and advice to develop the JCM projects (**Mr. Le Ngoc Tuan - JCM Secretariat**)
6. Individual discussions between Japanese companies and local organizations (**All participants**)

V. Progress of the Networking activities

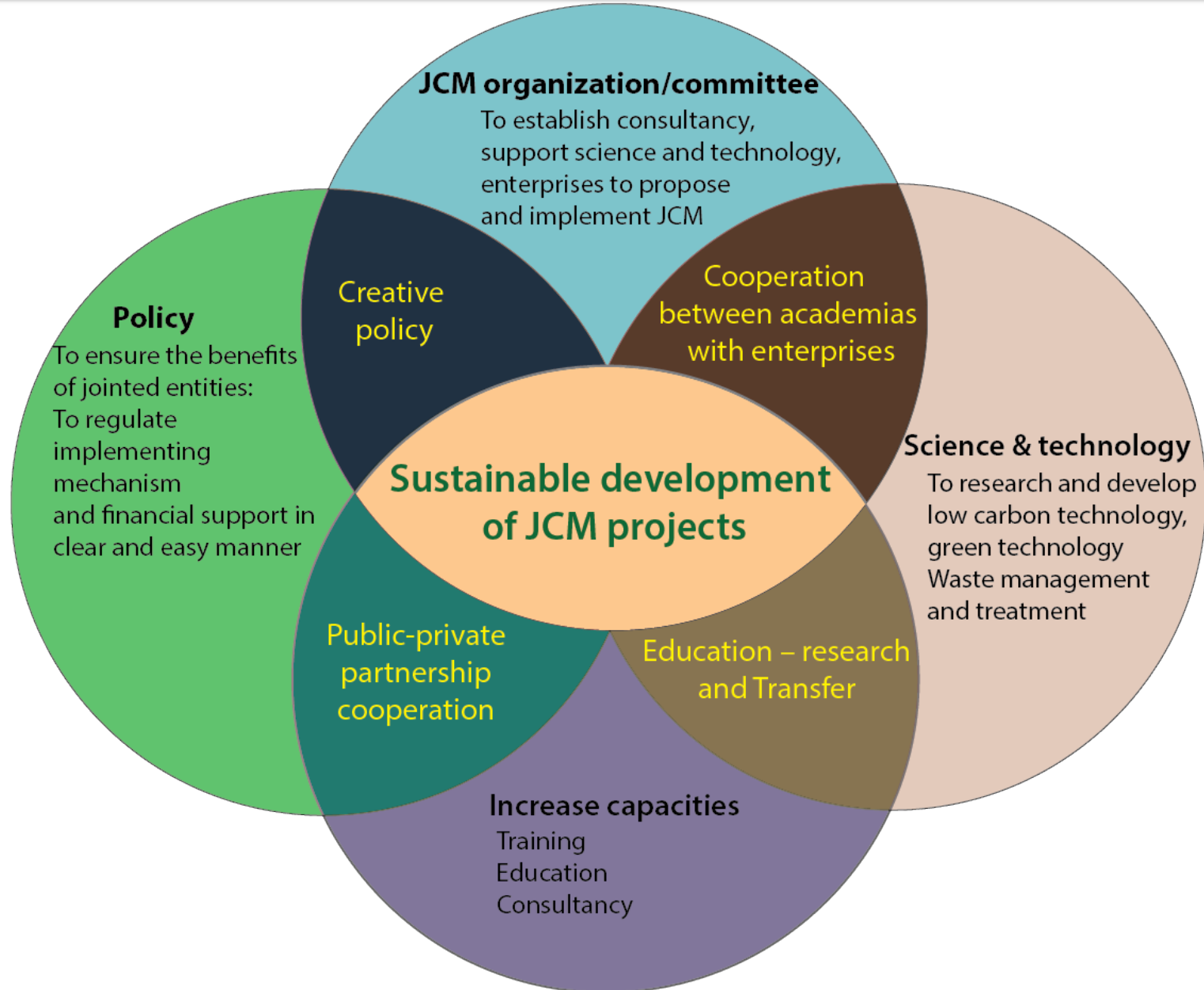
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VI. Promoting the 3E nexus and JCM in Vietnam

6.1. Sustainable development based on and for JCM projects



VI. Promoting the 3E nexus and JCM in Vietnam

6.2. Low carbon development and JCM implementing Capacity building

1. To promote cooperation between academia with enterprises

- **Research and development:**

- LC technology, green technology; high efficiency of energy production, use and management; waste treatment for reducing GHG...
- Paris agreement: **balanced mitigation, adaptation and MOI**: JCM project priority on the balance? prioritization of JCM projects;
- Measures for JCM implementation.

- **Promotion mechanism for transferring the LC technology and energy efficiency use/management technology**

2. To promote education-research and transfer

- **Development of capacities in low carbon society development, 3E NEXUS and JMC implementation and consultancy and knowledge transfer** based on research, learning by doing, project and case study
- **Better use of existing and trained human resource:** how to be used such to be trained and educated!

VI. Promoting the 3E nexus and JCM in Vietnam

6.2. Low carbon development and JCM implementing Capacity building

3. To promote public-private partnership cooperation

- Open information on policy and institution and methodologies of JCM development to enterprises
- Close connection between Government-Academia- Business (TECHNOPOLIS):
 - Japanese businesses/ industries/academia/governmental departments;
 - Vietnam policy maker/manager, private sector and businesses, academia and education institutions
- Policies and mechanism promoting low carbon society and JCM Technopolis

VI. Promoting the 3E nexus and JCM in Vietnam

6.3. Promoting the JCM

- International cooperation
 - Cooperating with Japanese counterparts to review and strengthen the project procedures and financial mechanism;
- National activities
 - Developing national registry of carbon credits
 - Organizing JCM introduction workshops to government agencies and business sector;
 - Organizing a business forum for JCM and other low-carbon technology transfer mechanisms

VI. Promoting the 3E nexus and JCM in Vietnam

6.3. Promoting the JCM

Additional Proposals for promoting JCM projects

1. Before 2020 (Pre Paris agreement):

More flexible financial mechanism considering

- low market of CC activities and business,
- low profits and long time revenue of JCM project;

2. After 2020- implementing Paris Agreement:

Implementing the existing JCM Financial mechanism, considering additional priorities for the project including improvement adaptation capacity, livelihood (as added values), making the JCM more sustainable...

VI. Promoting the 3E nexus and JCM in Vietnam

6.3. Promoting the JCM

Additional Information

International symposium on Energy and sustainability to be held in Hanoi from 20-21, October 2016

www.vnugeoengineering.com

We are looking to meet all of you in Hanoi for making the 3E NEXUS more sustainable !

Acknowledgements

