

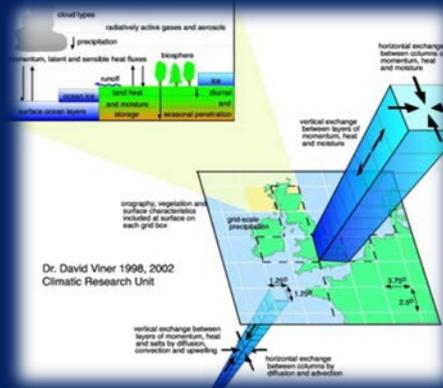
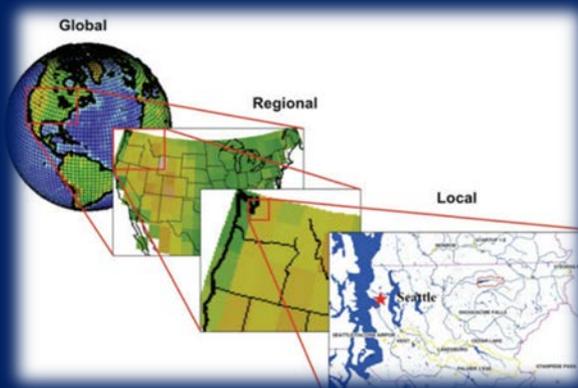


The Climate Change Research Strategy for Thailand: Supporting Informed Decision Making

Dr. Monthip Sriratana

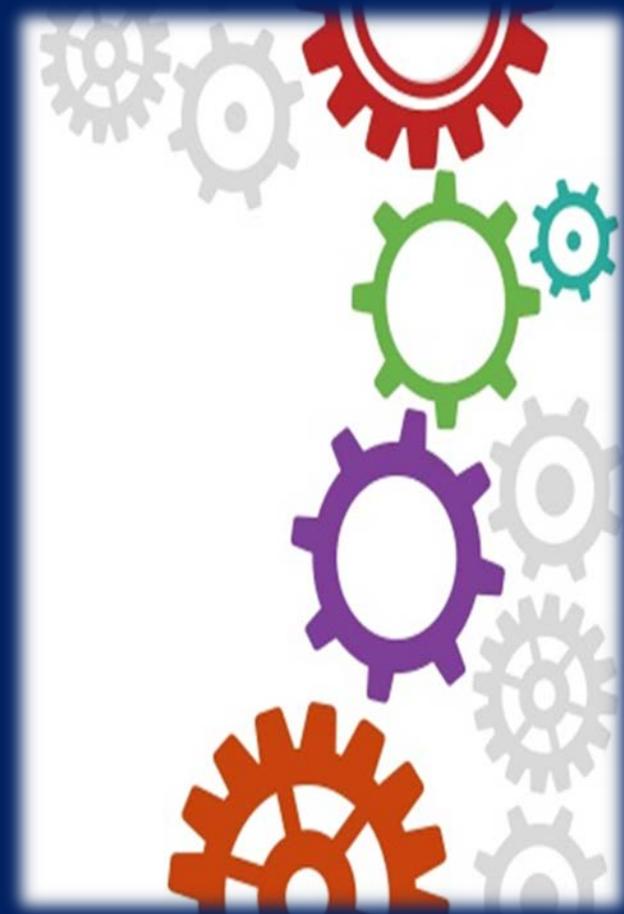
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COP 23 8 November 2017



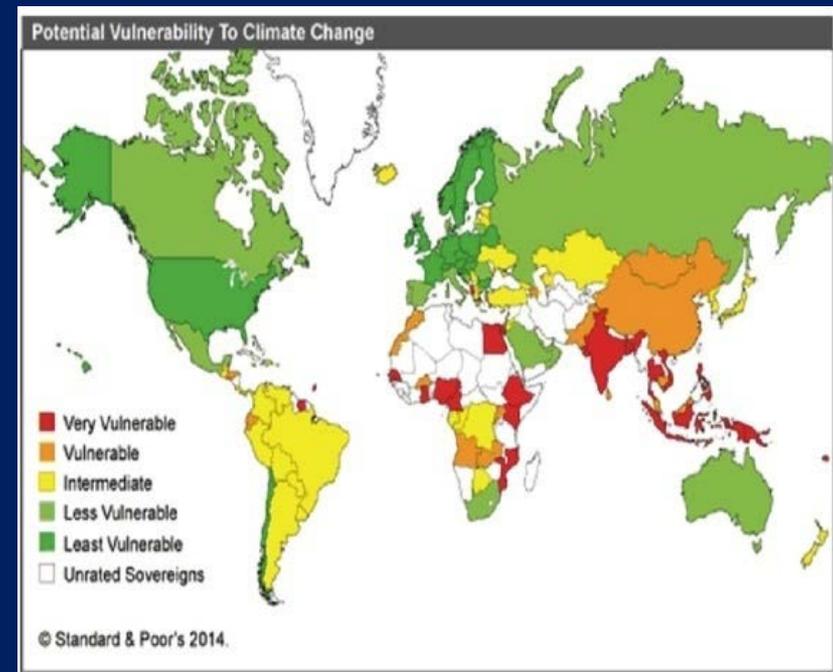
Overview

- The Context: understand existing strengths and key gaps in CC research
- Review policy background & Thai & International research experiences
- Purpose: key to defining future priorities in research programs
- Also help to identify where research capacity is limited



The Rationale

- Thailand is vulnerable to climate change impacts
- **Uncertainties exist over who should do what in response**
- Significant research funding from RTG and elsewhere
- **No means to assess relevance and impacts of the research**
- Need to stimulate greater coherence and synergy between research groups





Programme Approach



- Focus on self-contained research programs
- Individual budgets, duration and internal synergies
- Administered by different organisations with separate review systems
- Aligned to broader research in fields such as agriculture
- Easier to develop policy links
- Give clarity and direction but avoid prescriptive project lists



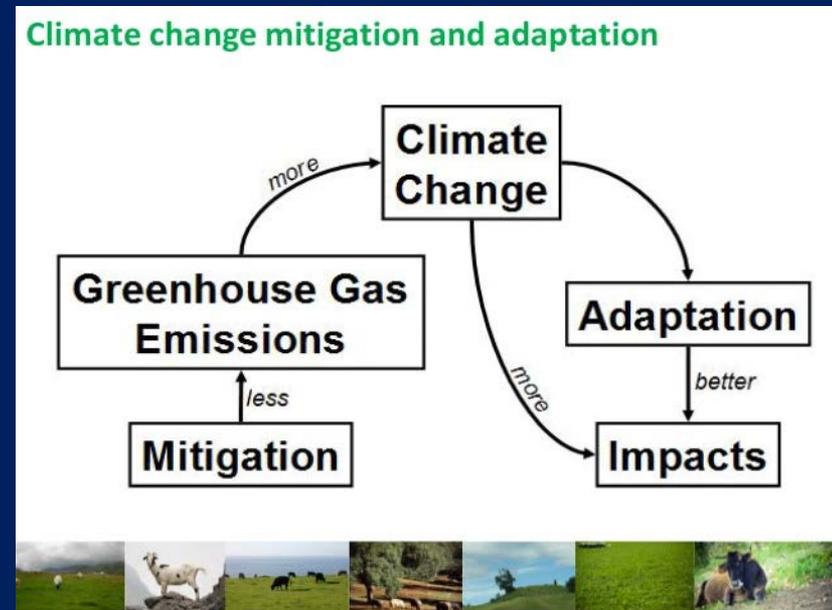
The Policy Context

- 9th ESDP (2002-2006) advanced the Sufficiency Economy as the basis for national development
- 10th ESDP (2007-2011) reinforced this commitment and 11th ESDP (2012-2016) integrated principles of strengthening resilience & building a low-carbon society
- 8th National Research Policy and Strategy (2012-2016) based on Sufficiency Economy & sustainable development principles

Climate Change Research in Thailand



- First research in mid 1990s as CC appeared on the international agenda, initial focus on mitigation
- Range of topics expanding to cover impact assessment, mitigation & adaptation
- Now place CC research in a wider development context
- Challenges in coordination & weak links between research and policy development





International Experiences

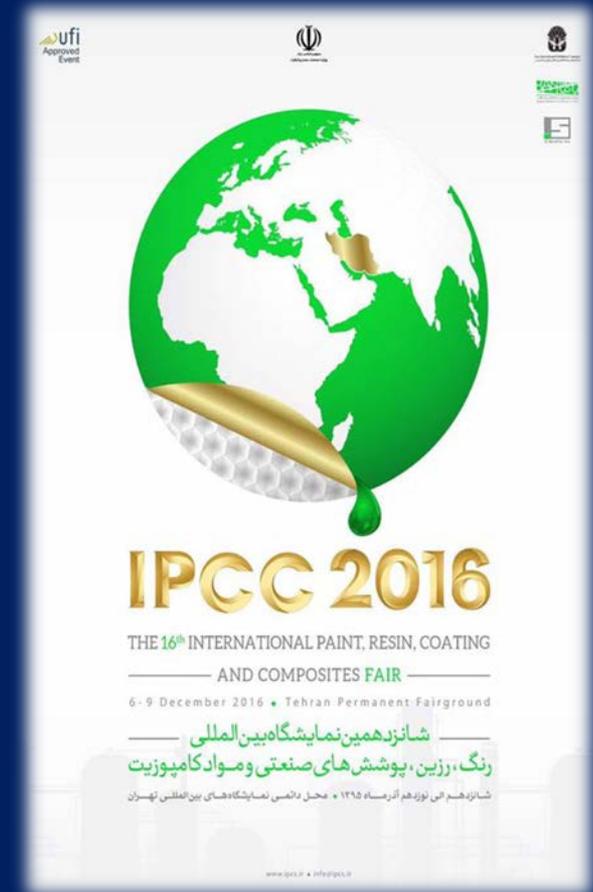


- Huge amounts of research going on around the world with a climate change label.
- Some of it is 'old wine in new bottles' – relabeling existing interests to secure funding and attention
- Lots done without any clear structure or links to wider programs and strategies
- But major new areas of interest and some significant and structured programs

International Experiences



- Great diversity but emerging trends can be identified
- These have developed over time, in part in response to the changing agenda defined by the IPCC but also reflecting the trends in funding: as CC has gone up the agenda more disciplines & institutes have become involved
- A number of new, specialized CC research institutes have been established



International Experiences

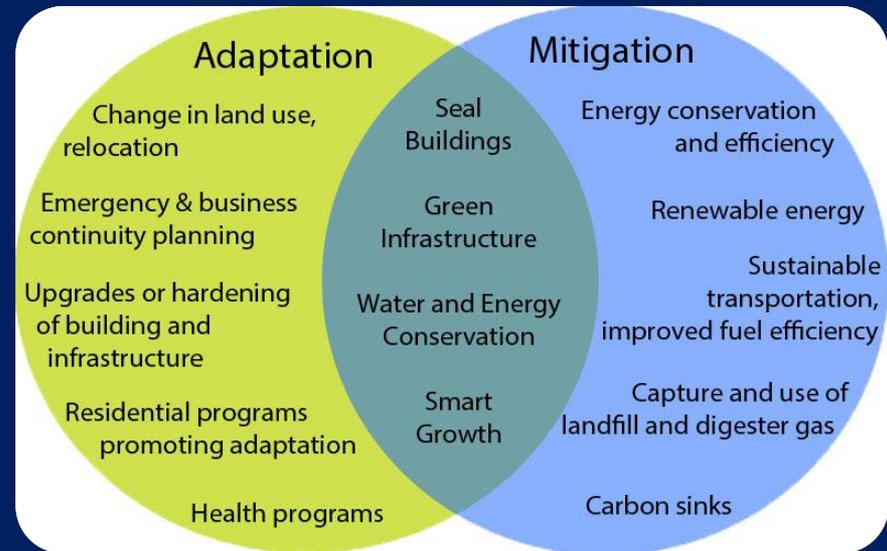
- Emphasis on policy relevance, direct links
- In some cases, e.g. the UK, this is through formal & structured links between policy makers & the CC research community
- Questions of whether CC impacts will happen now largely finished: key question is now “CC is here: what can we do about it?”

WHAT can
we do?

International Experiences



- Despite the diversity, some key emerging themes can be identified:
 - **Avoid seeing CC in isolation, but rather as one driver of change & source of uncertainty**
 - **Links between mitigation, adaptation & impacts**
 - **Impact assessment: scaling down to understand specific impacts in different places**



International Experiences



- Mitigation Research:
 - Focus on low carbon growth, overall development patterns
 - Lot of interest in ‘co-benefits’ approaches
 - REDD & wider interests in carbon sequestration

Co-Benefits of Climate Action

Co-benefits which can be untapped by scaling up climate action to meet a 100% renewable energy pathway in China, the US and Europe

1 Prevented premature deaths from excessive exposure to air pollution

Total lives saved:
1.16 million per year



CHINA	EU	US
1,100,000	40,000	20,000

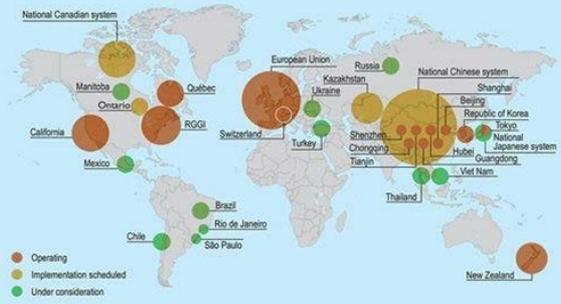


UN-REDD PROGRAMME



Empowered lives.
Resilient nations.

Map of emissions trading schemes worldwide, 2016



International Experiences

- Adaptation Research
 - Mainstreaming & institutional changes to help adaptation
 - Economic assessment, financial mechanisms
 - Ecosystem adaptation & ecosystem service flows
 - Water resources, coastal areas, marine resources



Analysis of Strengths and Gaps in Climate Change Research in Thailand





An International Perspective: UNEP PROVIA



- Comprehensive global review
- Focus on knowledge for policy
- Links between impacts, adaptation & mitigation
- Impacts: water resources, arid areas, coasts & cities
- Vulnerability assessments
- Economic analysis
- Key sectors, specific to country characteristics



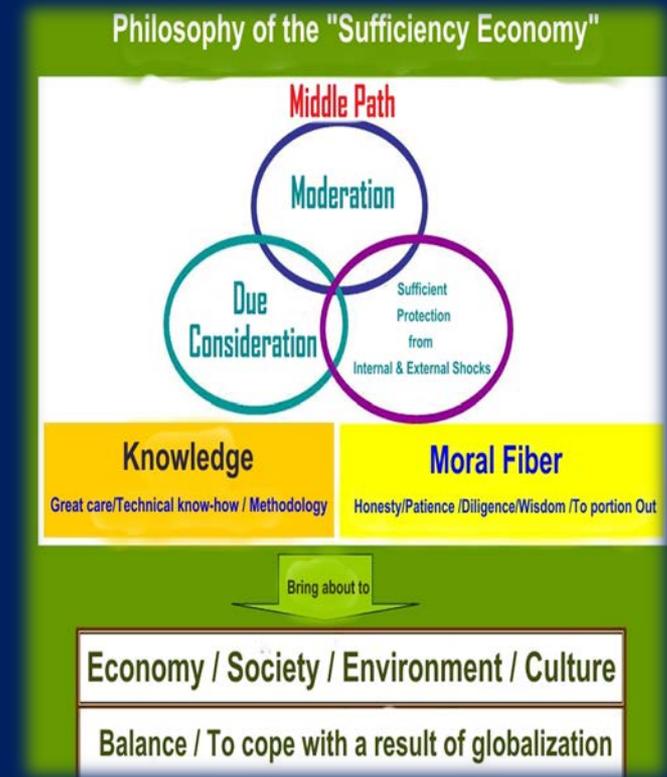
Criteria for Identifying Strengths and Gaps

- **Knowledge needs:** what do policy makers and practitioners need to know in order to strengthen Thailand's ability to respond to the risks and uncertainties resulting from climate change?
- **Past experiences:** what are past and existing experiences in CC research in Thailand and how do these relate to knowledge needs?
- **International approaches:** what can Thailand learn from international approaches to CC research?

Policy Context & Knowledge Needs

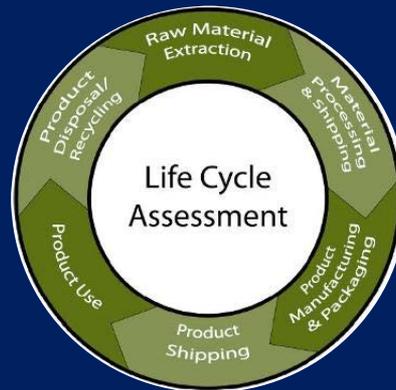


- Overall trend in national development thinking:
 - Low Carbon Growth
 - Sufficiency Economy Principles
 - Inclusive Development
- Differentiated knowledge for different sectors and different parts of the country
- Build on strengths & address strategic gaps



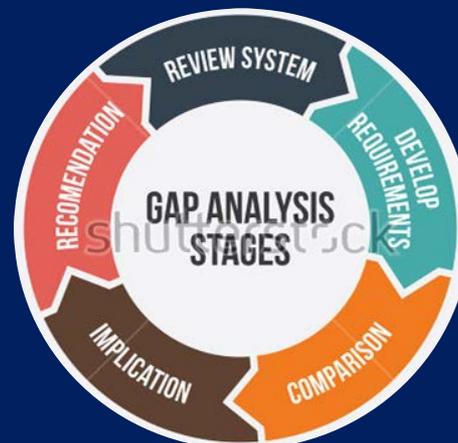
Existing Strengths

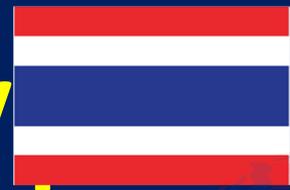
- Significant strengths in existing research capacity that should be prioritised & further enhanced in a number of areas:
 - **Forecasting and modelling** climate change patterns
 - Research into **climate-resistant crops**
 - **Life-cycle assessments /carbon footprints**
 - **Human health impacts**
 - **Water mgt**
 - **Urban CC issues**



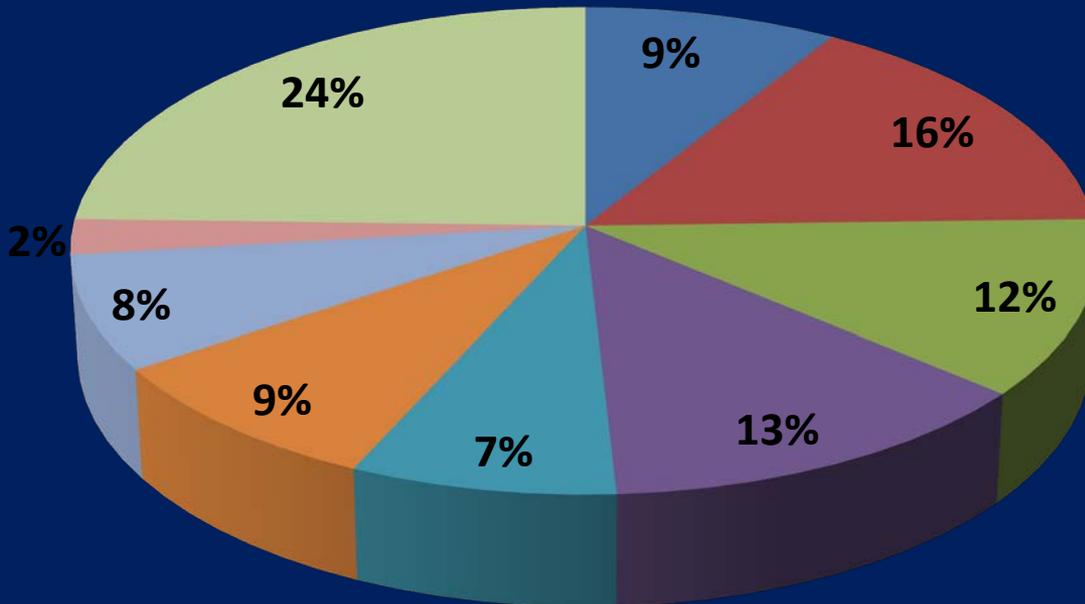
Gap Analysis

- **Strategic Gaps:** does not mean nothing is going on. In some areas already existing work.
- Existence of some capacity is a base to build future expansion on
- **Key point:** the Strategic Gaps are areas where expanded capacity and research is needed to meet Thailand's knowledge needs





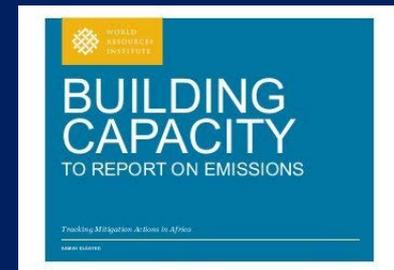
Research work categorized by Thailand's climate change strategies



- 1. Modeling and assessment of changing patterns of climate and environmental conditions in Thailand
- 2. Research into climate change and agriculture/food security
- 3. Research into climate change and ecosystems dynamics and resilience
- 4. Assessment of the impacts of climate change on water resources and options for the improvement of water management systems
- 5. Research into climate change and health
- 6. Research into the impact of climate change on urban development, including industrial and transport sectors, and the assessment of options for sustainable urbanization.
- 7. Research into Climate Change Adaptation
- 8. Research into mitigation options for Thailand, focused on the transition to and characteristics of low carbon development pathways for Thailand
- 9. Research into knowledge management associated with climate change

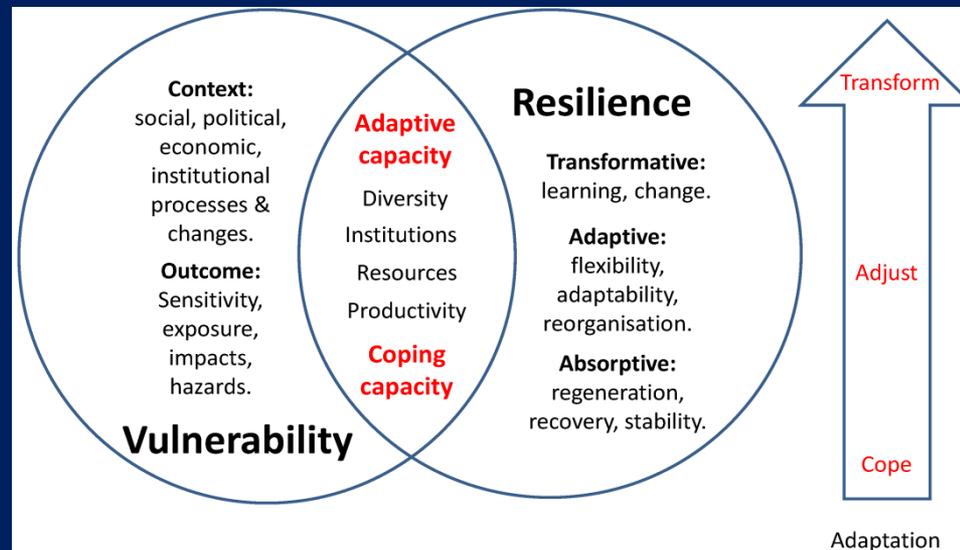
Strategic Gaps: Adaptation

- Most significant field where strategic gaps exist
- Relatively new area of research and policy development in Thailand
- Many dimensions & need for better understanding of the nature of adaptation
- Needs sustained effort in building research capacities and partnerships, including with international partners



Strategic Gaps: Adaptation

- Research into **resilience and vulnerability**, especially into the nature of **autonomous adaptation** at the **community level**
- **Policy and institutional processes**, including markets, that affect adaptation at the community level





Strategic Gaps: Adaptation

- Climate-proofing of infrastructure & resource management systems
- **Mainstreaming into sectoral policy and planning**
- Economic analysis of adaptation processes and intervention options
- **Geographical variations in adaptation needs & opportunities**
- Water resources management



Climate Change Research Strategies in Thailand



Strategy 1: Modeling and assessment of changing patterns of climate and environmental conditions in Thailand

Strategy 2: Research into climate change and agriculture/food security

Strategy 3: Research into climate change and ecosystems dynamics and resilience



Climate Change Research Strategies in Thailand

Strategy 4: Assessment of the impacts of climate change on water resources and options for the improvement of water management systems

Strategy 5: Research into climate change and health

Strategy 6: Research into the impact of climate change on urban development, including industrial and transport sectors, and the assessment of options for sustainable urbanization



Climate Change Research Strategies in Thailand



Strategy 7: Research into Climate Change Adaptation

Strategy 8: Research into mitigation options for Thailand, focused on the transition to and characteristics of low carbon development pathways for Thailand

Strategy 9: Research into knowledge management associated with climate change

Revised Strategy

- **Assessment of past research:** NRCT did a quick assessment of relevance and use of past research. Major findings included:
 - Analyzed the current version of the NCCRS to identify the sections requiring version and updating
 - Identified specific elements that the reversions might cover eg, Paris Agreement
 - Reviewed the related literature in Thailand eg, the National Climate Change Strategy, NAMA, NAP and etc.
 - Searched and analyzed the international literature to identify the important new climate change research subjects not included in the NCCRs or other Thai document
 - Designed a database for compiling information on climate change research conducted in Thailand

Revised Strategy

- **Reflection of policy changes:** New policies and strategies enacted during the past 3 yrs were reviewed and the Strategy revised accordingly
- **Views of experts:** Views from CC experts and user institutions were sought and incorporated



Institutional Restructuring



- **Past structure of domestic research financing institutions:** 6 funding institutions, all largely acting independently of each other. But in terms of CC, they all agreed to use the National CC Research Strategy as a guide to assessing the worthiness of research applications.



Institutional Restructuring

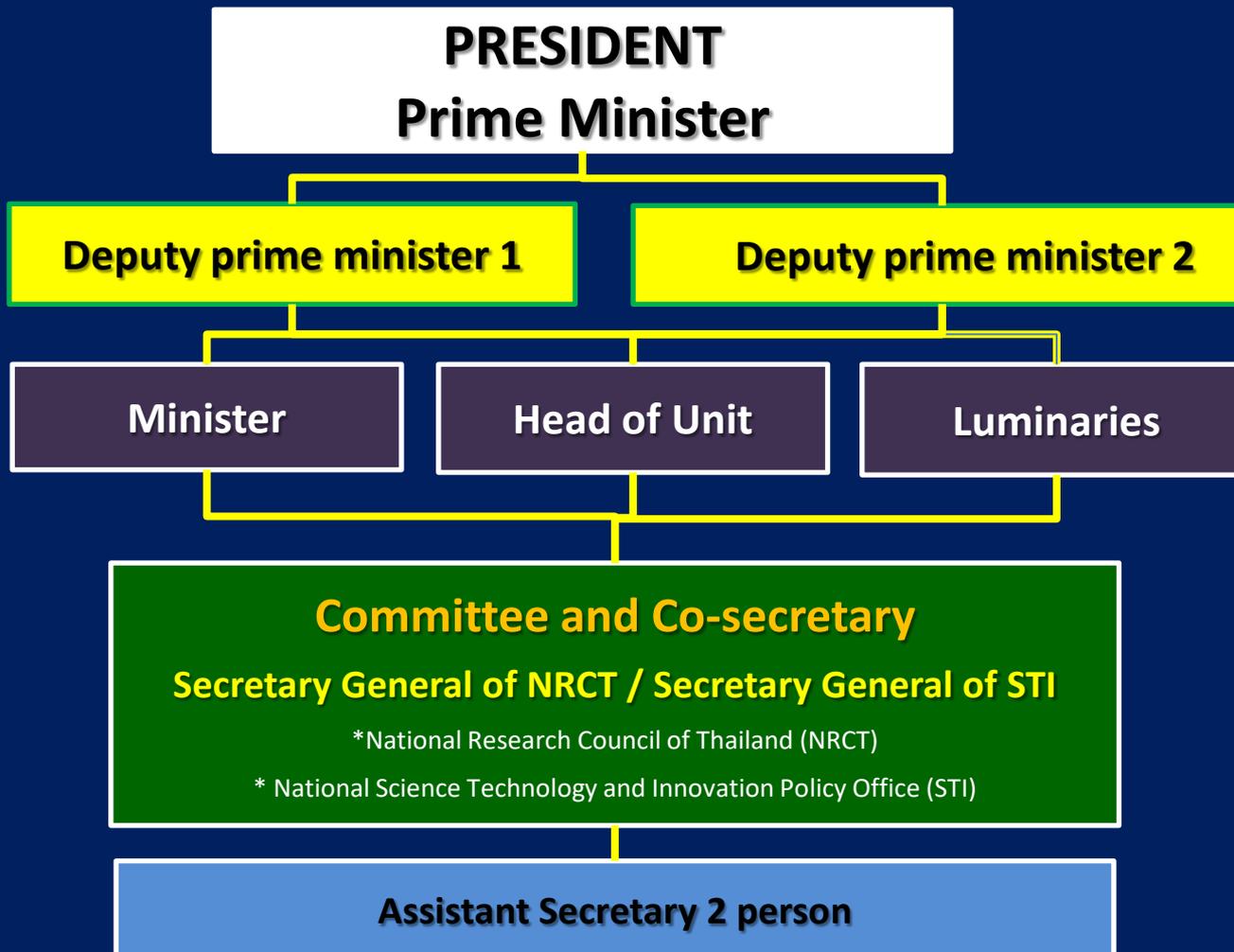


■ Supporting organizations

- National Research Council of Thailand, NRCT
- The Thailand Research Fund, TRF
- National Science and Technology Development Agency, NSTDA
- Agricultural Research Development Agency, ARDA
- Health Systems Research Institute, HSRI
- National Science Technology and Innovation Policy Office, STI
- Office of the Higher Education Commission, OHEC
- Biodiversity-Based Economy Development Office (Public Organization), BEDO

Institutional Restructuring

- Recent restructuring:





Institutional Restructuring



- **Minister:**

1. **Ministry of Defense**
2. **Minister of Finance**
3. **Ministry of Foreign Affairs**
4. **Ministry of Tourism and Sports**
5. **Ministry of Social Development and Human Security**
6. **Ministry of Agriculture and Cooperatives**
7. **Ministry of Transport**
8. **Ministry of Natural Resources and Environment**
9. **Ministry of Digital Economy and Society**
10. **Ministry of Energy**
11. **Ministry of Commerce**
12. **Ministry of Interior**
13. **Ministry of Justice**
14. **Ministry of Labour**
15. **Ministry of Culture**
16. **Ministry of Science and Technology**
17. **Ministry of Education**
18. **Ministry of Public Health**
19. **Ministry of Industry**



Institutional Restructuring



- **Head of Unit :**
 1. **The Bureau of the Budget**
 2. **Council of State**
 3. **National Economic and Social Development Board**
 4. **The Higher Education Commission**
 5. **Council of University Presidents of Thailand**
 6. **The meeting Rajabhat University Presidents**
 7. **The meeting Rajamangala University of Technology Presidents**
 8. **Thai Academy of Science and Technology Foundation (TAST)**
 9. **The Board of Trade of Thailand**
 10. **The Federation of Thai Industries**
 11. **Thailand Development Research Institute**



Institutional Restructuring



- **Luminaries :**

1. **Prof. (Emeritus) Dr. Kraisit Tontisirin**
2. **Assoc. Prof. Dr. Kranarong Srirod**
3. **Prof. (Emeritus) Tianchai Kiranan**
4. **Mr. Suvit Viboonponprasert**
5. **Mr. Kan Trakulhoon**
6. **Mr. Thaweesak Koanantakool**
7. **Mr. Chartsiri Sophonpanich**
8. **Mrs. Hirunya Suchinai**



Future Considerations

- **Use of the Research Strategy:** It will continue to be used as a guide for considering domestic funding of proposals.
- **Monitoring:** NRCT has created and will maintain a database. We will continue to assess how research funds are used, and especially determine how research results are being used by institutions and individuals.
- **Partnerships:** We would like to see expanding partnerships with CC scientists and institutions from Asia and elsewhere.

THANK YOU