

Challenges & Opportunities: Working Across Sectors for Adaptation Policy and Planning in China

by
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- Climate Change and China
- What is the ACCC Project?
- The Challenges we faced
- Lessons we learned

The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking. - Einstein



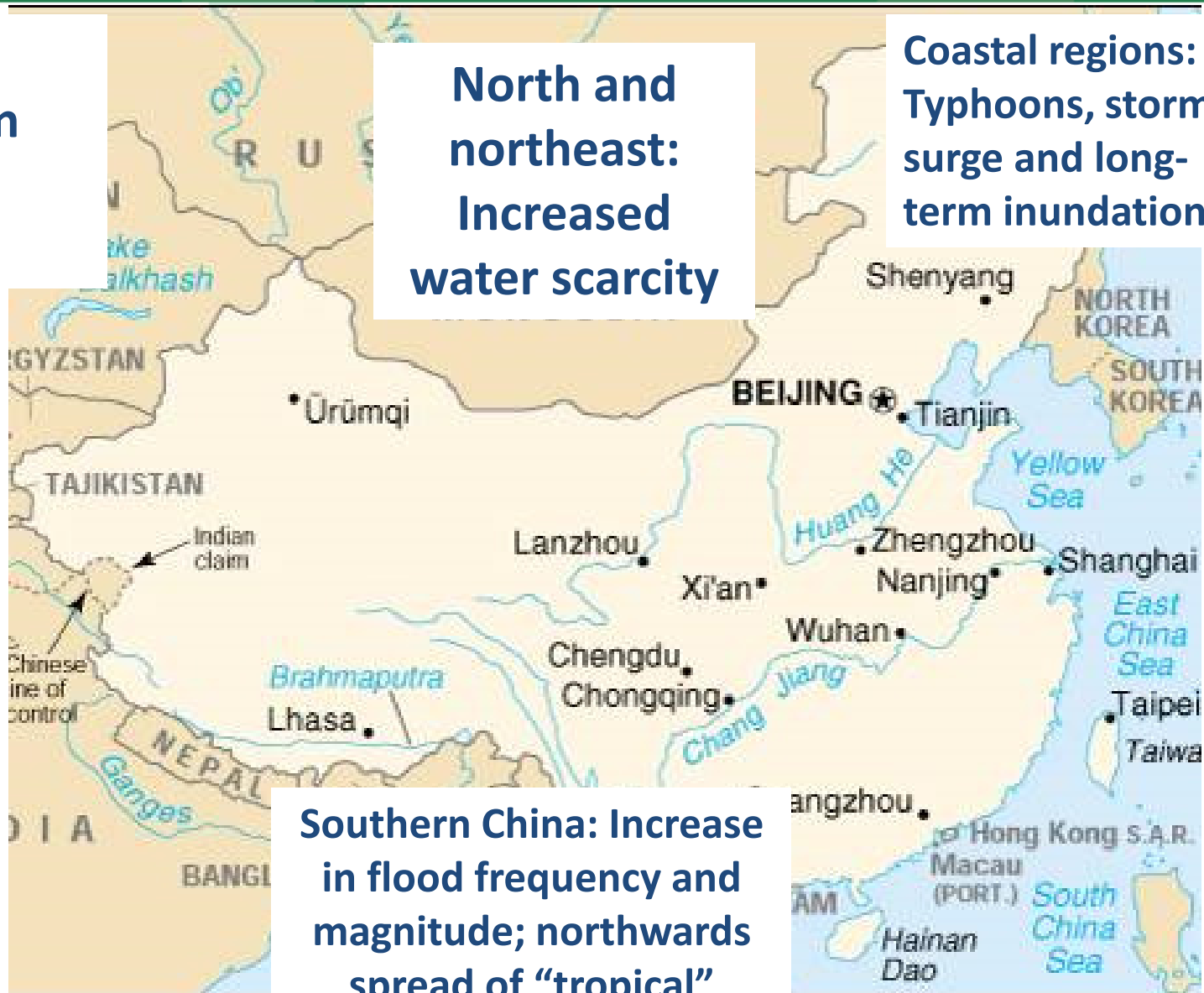
China

**Northwest:
Desertification
(higher
evaporation)**

**North and
northeast:
Increased
water scarcity**

**Coastal regions:
Typhoons, storm
surge and long-
term inundation**

**Tibetan
Plateau:
Change in
river flows
/ melting
glaciers**



**Southern China: Increase
in flood frequency and
magnitude; northwards
spread of “tropical”
disease vectors**

Case Study: Beijing Flood, July 2012



National Development and
Reform Commission

DFID Department for
International
Development

 Schweizerische Eidgenossenschaft
Confédération suisse
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Federal Department of Foreign Affairs FDFA
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DEPARTMENT OF
**ENERGY
& CLIMATE CHANGE**

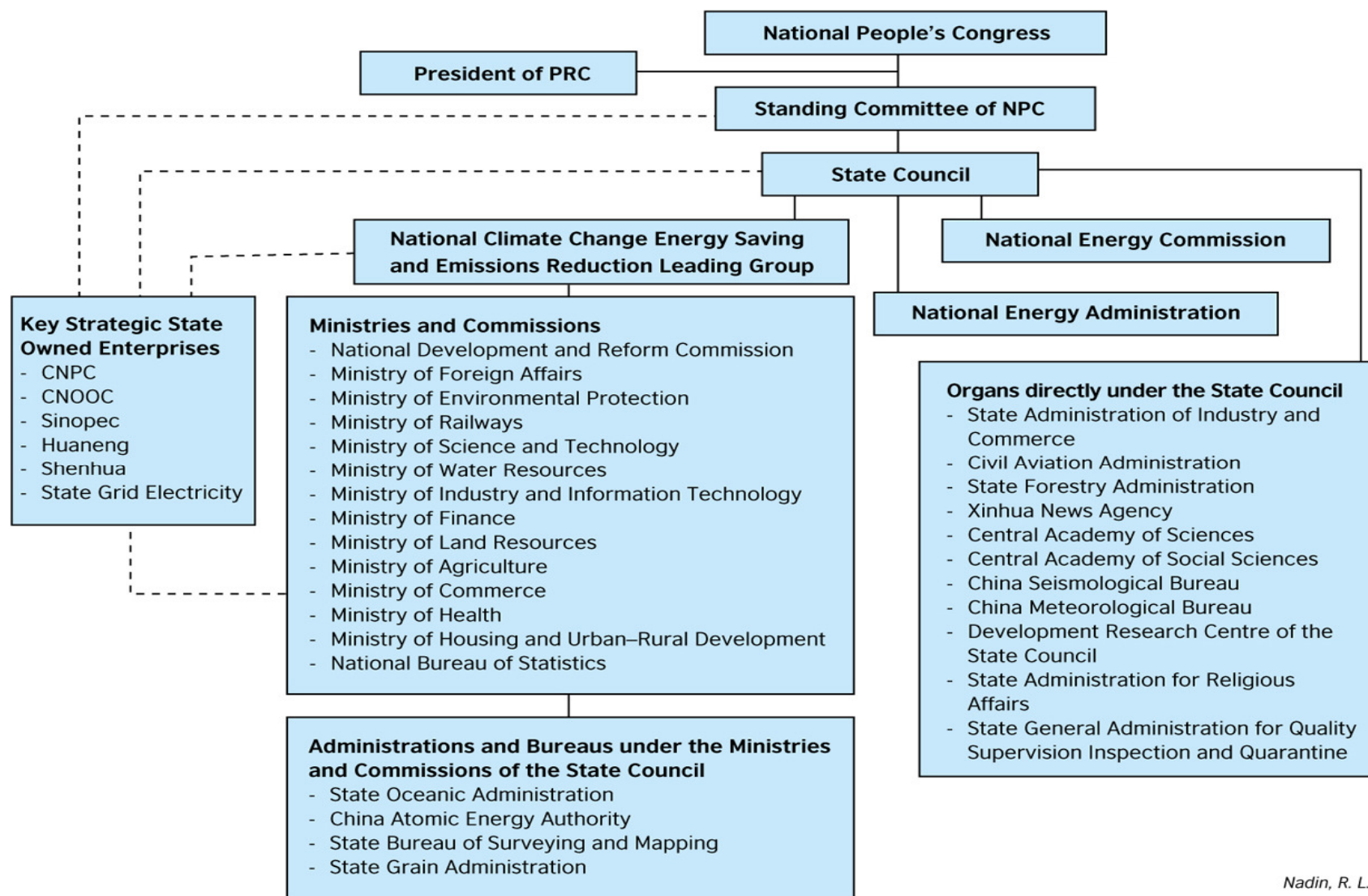
Case Study: Beijing Flood July 2012



Top-Down Bottom Up Responses



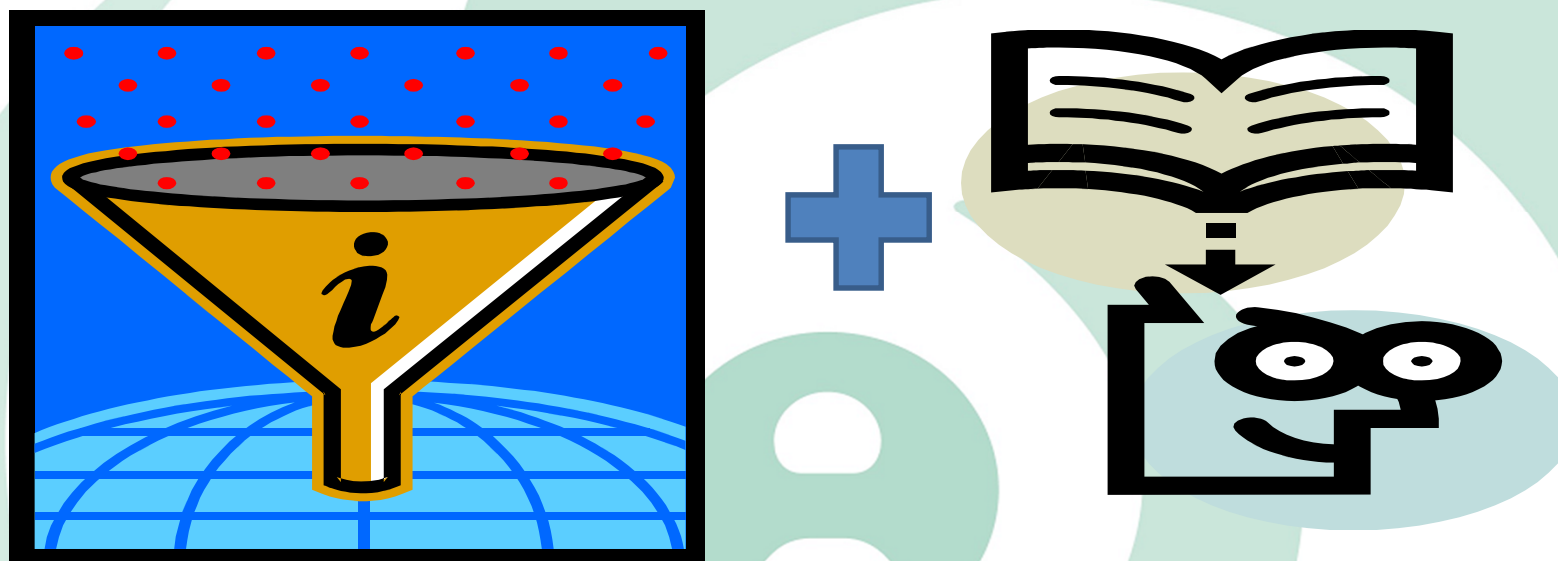
- 1995 - National Climate Centre in China Met Office established
- **1998 - policy shift from scientific issue to development issue**
- 1999 - established climate coordination group
- 2001 to 2005, 10th 5 Year National R&D project on Assessing the Impacts of Climate Change on Chinese Key Vulnerable Sectors and Adaptation.
- 2004- first national communication to UNFCCC
- **2006 - first-ever National Assessment Report on Climate Change (NARCC).**
- **2006 - climate change coordination group housed at NDRC**
- 2007 - establishment of provincial co- ordination groups
- 2008 - State Council Information Office published the first annual white paper, entitled “China's Policies and Actions for Addressing Climate Change 2008” (CPAACC) - prepared by NDRC
- 2009 - Jiangxi and Xiamen establish climate change monitoring/assessment centres
- 2011 - second National Assessment Report on Climate Change (NARCC).
- **2011 - White paper on Foreign Aid, 2011- Coping with Climate Change**
- **2011 - 12th 5 Year Plan (5YP)**
including a chapter on climate change and specific section on adaptation for the first time;
mandating the development of a National Adaptation Strategy (NAS).
- **2013 – publication of National Adaptation Strategy (NAS).**



ACCC is major China – UK – Swiss climate change adaptation research/policy project which aims to:

- ⑩ Developing accurate regional/national climate models
- ⑩ Assessing impacts, vulnerability and risk across sectors in:
 - ⑩ Agriculture
 - ⑩ Water resources
 - ⑩ Extreme weather / disaster risk reduction
 - ⑩ Public health
 - ⑩ Grasslands-livestock
- ⑩ Mainstreaming adaptation into development planning
- ⑩ Awareness and capacity building
- ⑩ Contribute to global knowledge on climate impacts and adaptation especially in developing countries.

Adaptation Policy and Planning



Problem to Policy

Drivers of Decisions

Types of Climate Change :

Extremes

Heightened variability

Longterm change

Vulnerability:

Exposure

Sensitivity

Adaptive Capacity

Elements of Effective Decision Making

Decision Relevant Info/data

Governance Structure

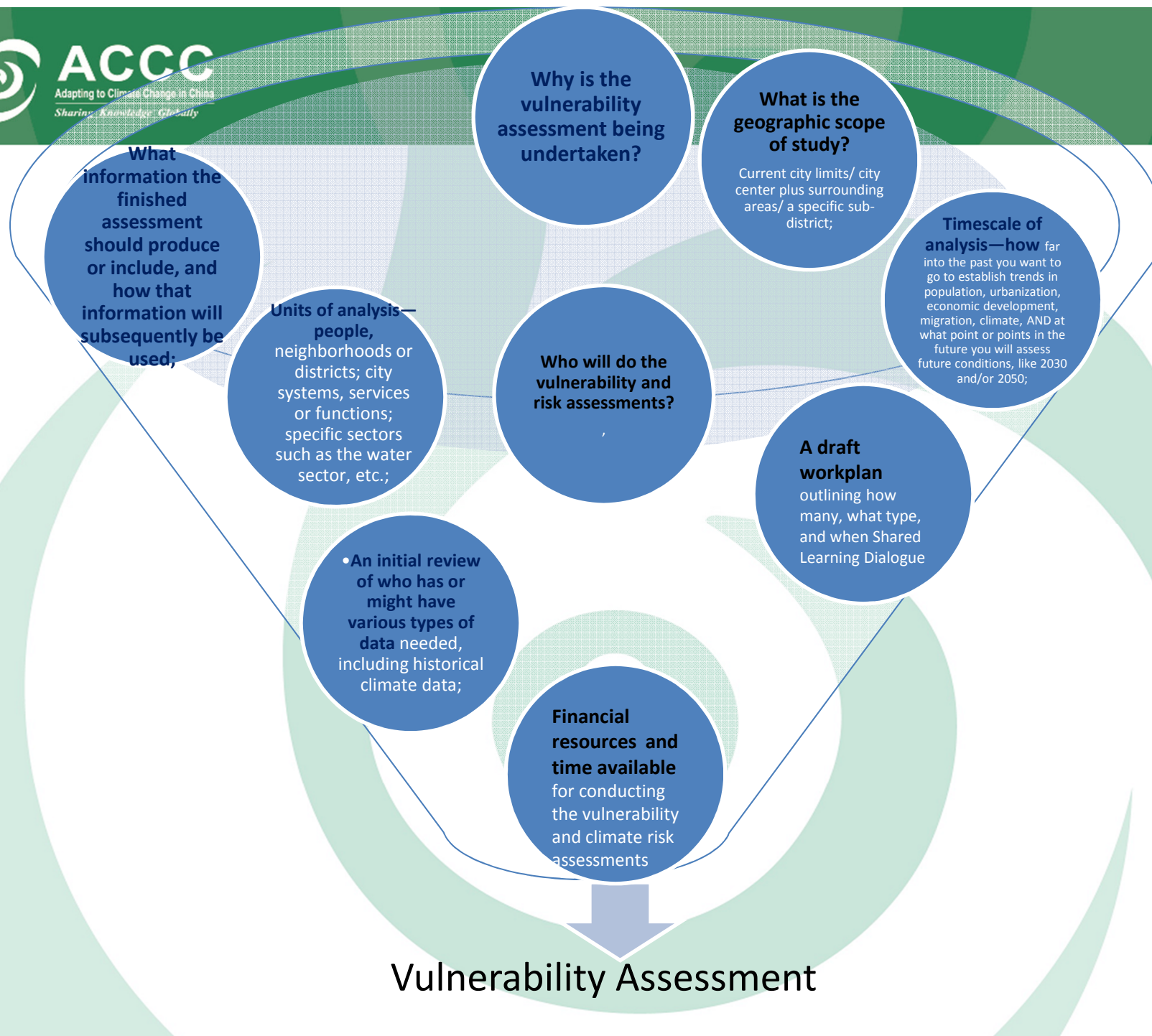
Tools for planning & Policy Making

Resources (financial, human, social, ecological)

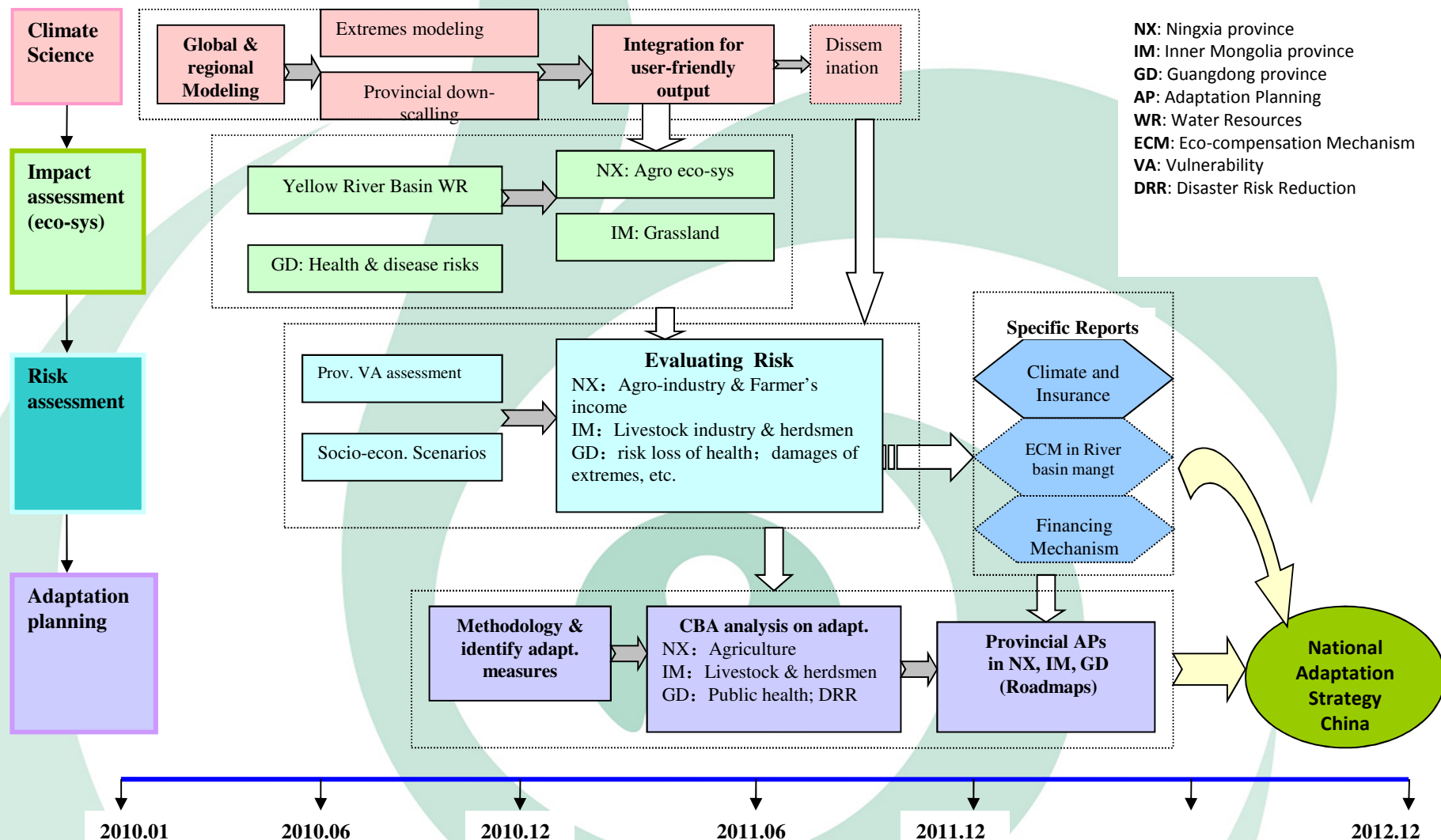
Public Engagement

Integrated adaptation policy & planning

Fig.WRI



Decision Making Roadmap

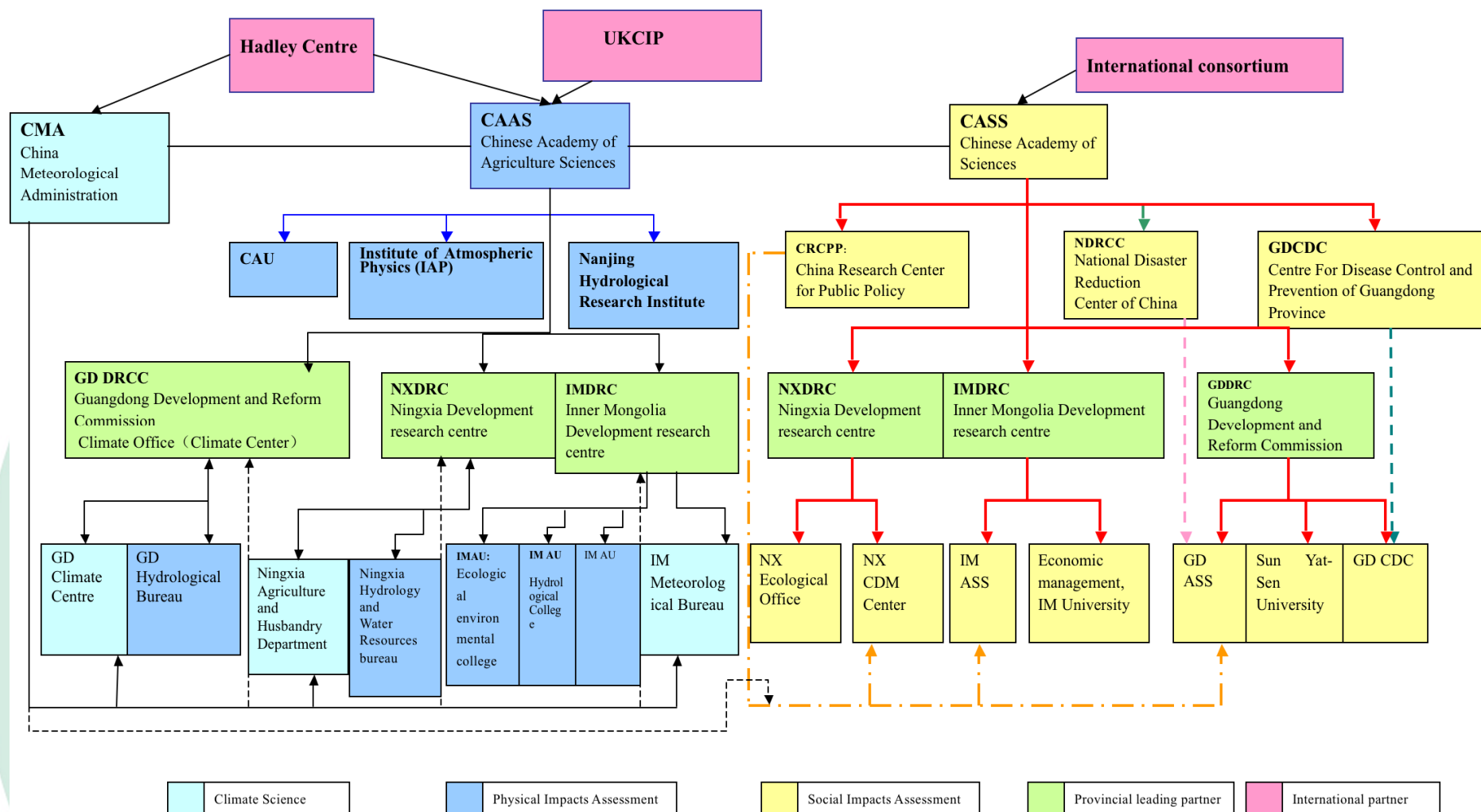




ACCC
Adapting to Climate Change in China
Sharing Knowledge Globally

ACCC Pilot Provinces





Autonomous adaptation:

- Ways to cool down - people lie or sit in the creek during heatwave period
- Construction workers (vulnerable group to heatwaves) drink a lot of waters and wear light colored clothes



Planned adaptation:

- Typhoon monitoring and early warning system
- Regulations for construction sector in heatwaves: 1) more tea breaks, 2) no outdoor construction work from 11am – 3pm, and 3) provide drinks for construction workers

No regrets adaptation:

- Typhoon monitoring and early warning systems were introduced to deal with current typhoon hazard but plans take into consideration future risk.
- National mangrove forest reserve areas to reduce typhoon risks, protect marine biodiversity, and prevent coastal erosion.

Challenges we faced



Challenges in Cross Sector Policy Making and Planning

Where to start- which sectors, groups, regions?

Obtaining and Using Decision Relevant Info/data

- Compiling data is Complex and Resource intensive (financial, computing)
- Types of adaptation approach
- How to chose the appropriate tools
- Lack of technical expertise
- Limited regional climate models
- Limited access to climate data

Which Tools for planning & Policy Making

- Limited capacity of regions or sub-national governments to undertake vulnerability and risk assessments and then translate that into plans
- Knowledge gaps for sector-specific impacts
- No standardised framework for doing climate vulnerability and risk assessments, and adaptation planning
- Often Limited collaboration among institutions/sectors
- Many definitions of vulnerability and risk—from disaster risk reduction, sustainable development, health, poverty alleviation, and climate science sectors
- Gaps in research and policy development
- Policies often only partially developed with evidence based approaches
- Research and policy worlds travel at different speeds
- Limited understanding research and policy constraints across sectors



Conducting comprehensive climate change vulnerability and risk assessments requires:

1. **Strong interdisciplinary** research collaboration
2. **Taking into account** Quantitative models of vulnerability and risk can be difficult to construct if appropriate data for indicators are missing or are of low quality
3. **Qualitative VA** – they are essential simulate information on how rules, policies, culture, and social norms influence behavior and vulnerability to multiple stressors beyond climate change
4. **Acknowledgment early on** that there is no standardized methods for conducting vulnerability and risk assessments - depends on spatial and temporal scales, resources available, data availability, and accessibility and requirements of decision makers
5. Vulnerability and risk assessments to be **linked** to real-life governance, policy processes and to community interests
6. **a shared definition** of vulnerability and risk upon which everyone agrees (there is no single right definition).
7. Definitions **to be clear and understandable by** policy makers
8. Understanding **RISK** is priority for policy making

Lessons from ACCC:

Mainstreaming climate change adaptation policies into development planning requires:

- **Producing comprehensive impact, risk and vulnerability assessments** for the key sectors in China so that policy-makers can prioritise, weigh up and respond to the overall picture.
- **Developing a methodology to integrate risk** assessment of key climate challenges into provincial level planning processes.
- **Essential to bridge the gap between policy / research and implementation.** - means working directly with national, local government, key academic institutions and communities in China for long-lasting partnerships
- Assessing the **effectiveness of current adaptation policies** and measures.
- Making **recommendations** for new and improved policies such as provincial 5 YP and National Adaptation Strategy.

Summary

- Adaptation policy making is complex
- Nature of problem means integrated, cross-sector approaches are essential but this takes time
- Essential to understand the data/information needs of policy makers
- Evidence based decision making is key as it leads to more resilient communities and reduce risk of maladaptation

Thank You!

www.ccadaptation.org