

COP-11 Side Event by ADB

PREGA - China

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1 Overview

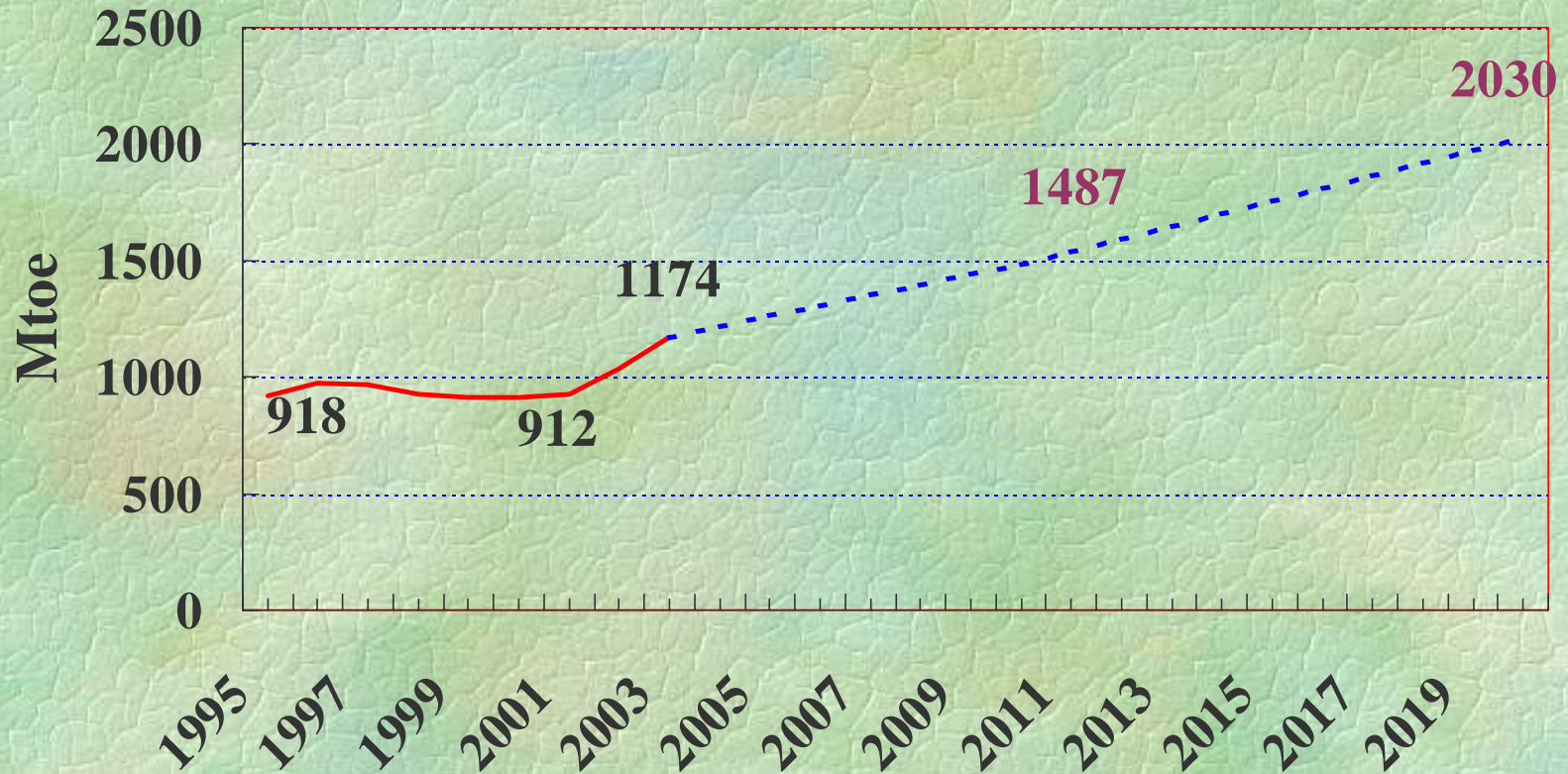


Energy development strategies

Key China's energy strategies for achieving the economic target of quadrupling GDP by 2020

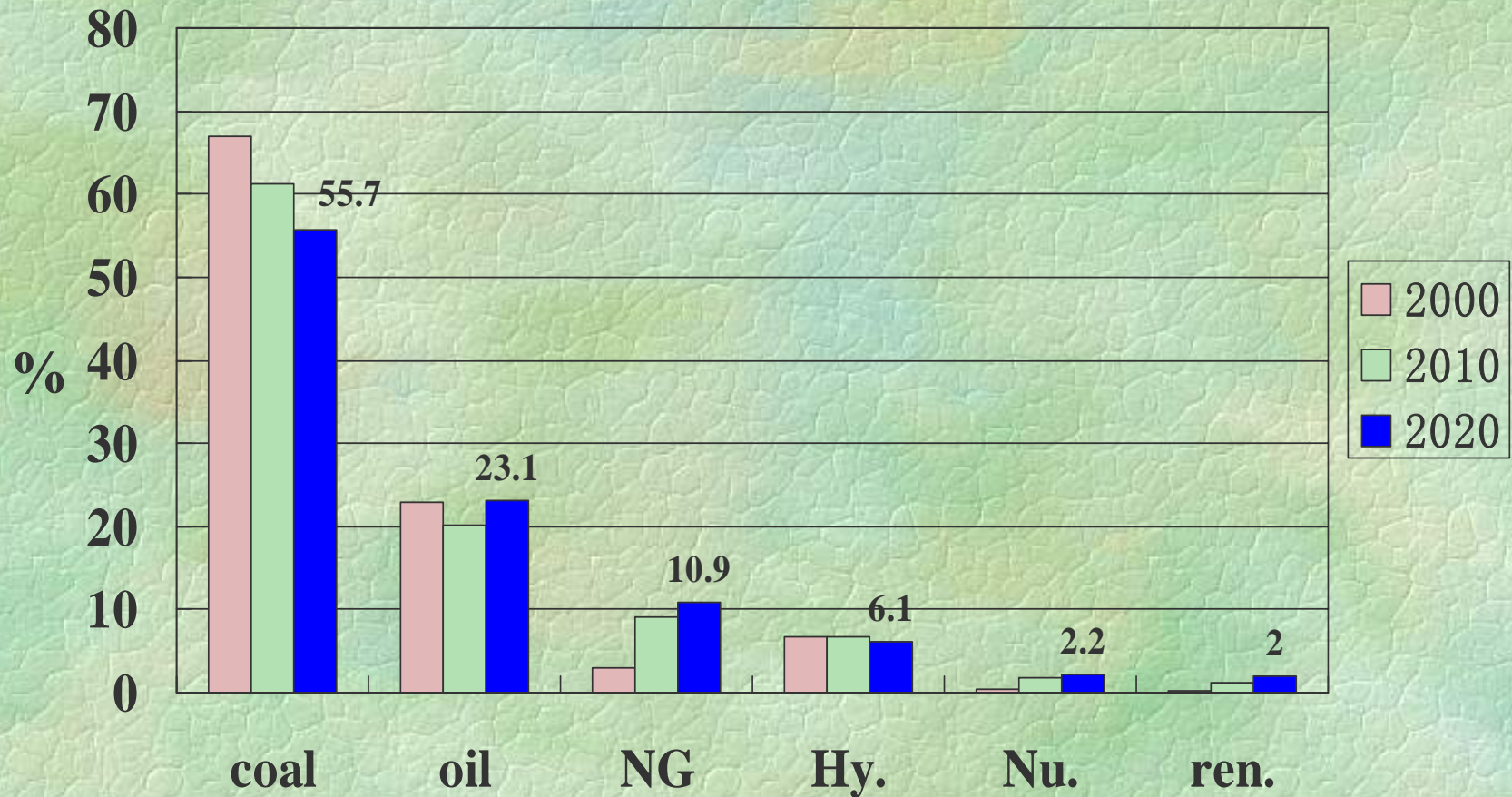
- 1 To diversify the coal-dominated energy mix**
- 2 To put energy saving at a priority position**
- 3 To promote the clean coal technologies**
- 4 To promote renewable energy**
- 5 To ensure the energy security of petroleum and natural gas**

Energy projection



Energy consumption of China

Energy consumption structure



China's CDM potentials based on the CERT modeling exercise under the scenarios given below

- 1) Russia will lead the CER price
- 2) Some US states may voluntarily participate in the flexible mechanisms (JI, CDM and ET) (e.g. 10%)
- 3) 30% of CDM implementation by the Non-Annex I countries
- 4) The transaction cost is no more than US\$ 2/t-C

Sector	Share (%)	Amount (Mt-C/a)
Steel Making	10	2.16
Cement	10	2.16
Chemical Industry	5	1.08
Power Generation	50	10.8
Other Sector	15	3.24
Non-CO ₂ project	10	2.16
Total	100	21.6

2 PREGA activity

- First phase -

Project Pre-feasibility Study

- **The case study is partly based on the projects considered in about 20 pilot cities in the “National Clean Energy Action Plan”, which was initiated by MOST and SEPA.**
- **Small scale projects (according to the definition of UNFCCC) in the areas of energy efficiency and renewable energy are mainly selected for pre-feasibility Study.**

Future of REGA promotion

Policy implementation makes a foundation to popularization of REGA technologies. China government has issued relevant policies and laws for REGA, such as:

- **“China 21 Century Agenda” approved in 1994**
- **“China’s New Energy and Renewable Energy Development Outline from 1996 to 2010” formulated in 1995**
- **“China’s Air Pollution Prevention and Control Law”**
- **“China’s Tenth Five-Year Plan on Energy Strategy”**

Priority areas and projects in China

1. **Capacity building for sustainable development**
2. **Sustainable agriculture**
3. **Clean production and the environmental protection industry**
4. **Development of clean energy and transportation**
5. **Conservation and utilization of natural resources**
6. **Environmental protection control**
7. **Poverty abatement and regional development**
8. **Population, health and human settlement**
9. **Global change and conservation of biodiversity**

Project screening for case study

- 1 **Projects sources screened for creating a long list of project: 23 projects (8 renewable, 15 efficiency) in 12 cities.**
- 2 **Screening through experts questionnaire.**
- 3 **Five projects were selected for pre-feasibility study in the first phase of PREGA**

Renewable energy: 1 project

Energy efficiency: 2 projects

Energy substitution: 2 projects

Project pre-feasibility study

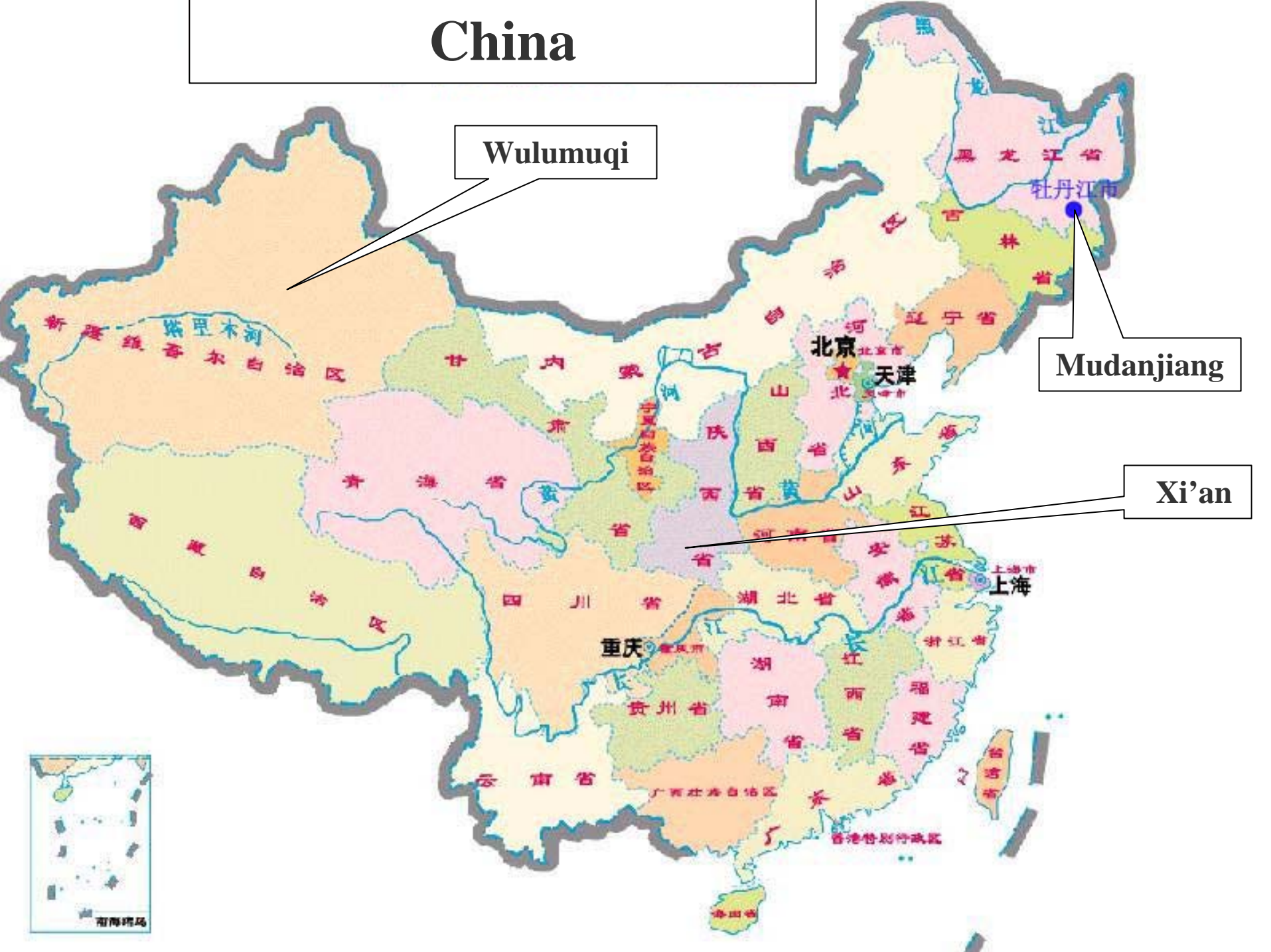
Project	Place	Type
Wind farm	Xinjiang wind Co.	Renewable
Waste Heat Recovery	Calcium Carbide Co., Mudanjiang	Efficiency
Efficient motor	No.2 Power Plant, Mudanjiang	Efficiency
Kiln renovation	High-voltage Porcelain Insulator Co. , Xi'an	Substitution
Space heating	Cotton and Ramie Company, Xi'an	Substitution

China

Wulumuqi

Mudanjiang

Xi'an



Project summaries

Projects	Capacity	CO₂ reduction (ton/yr)
Wind farm	22.8 MW	58,540
Waste Heat Recovery	Substituting 4 ton/hr boiler	5,850
Efficient motor	900*2 KW	6,580
Kiln renovation	64*22 m³	98,340
Space heating	35,000 m²	5,720

3 PREGA activity

- Second phase -

Goals of PREGA 2nd Phase

- **Preparation of a feasibility study (bankable project standard) and CDM PDD of a selected REGA technology.**
- **Preparation of a country report on policy, barriers and strategies of REGA.**

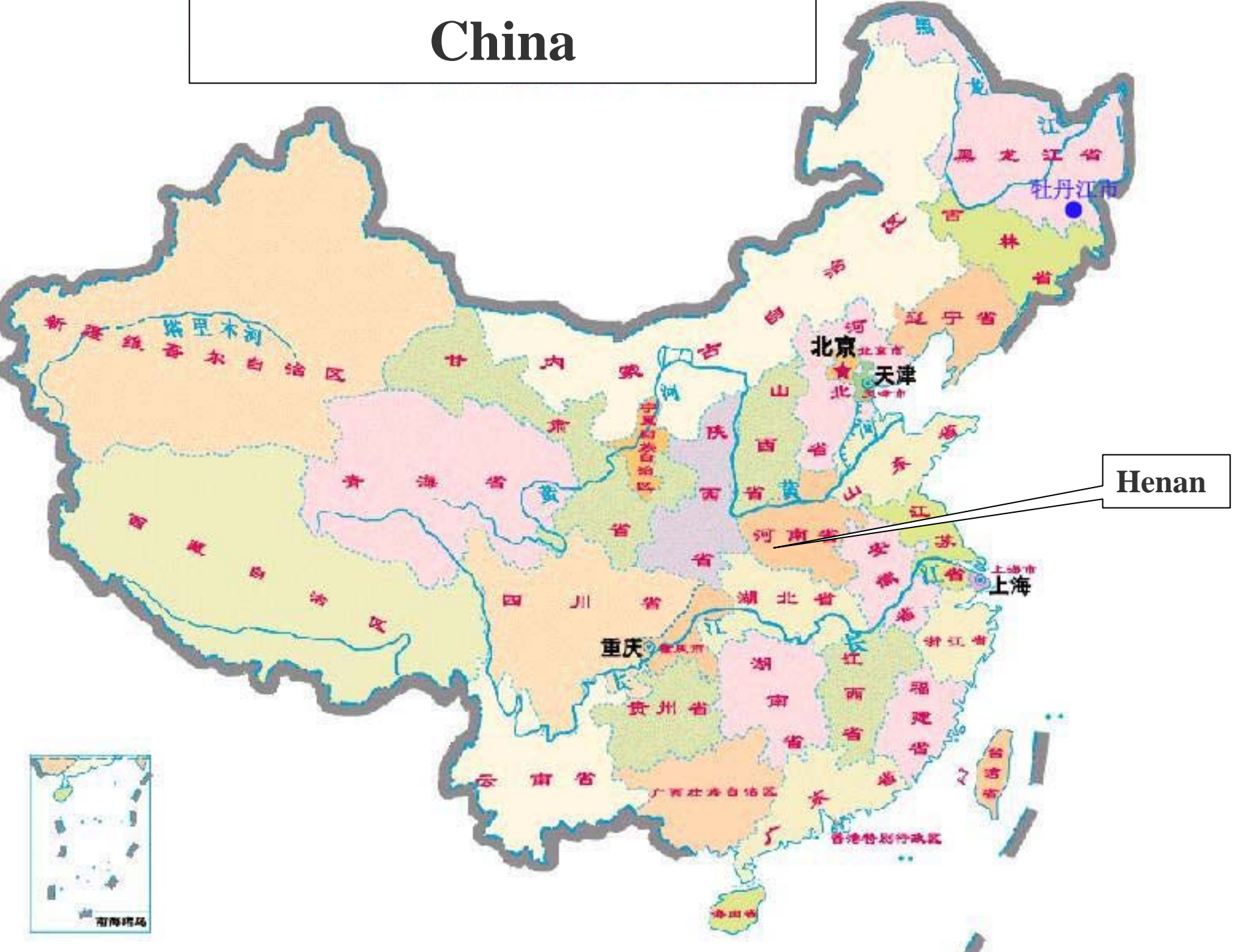
Project screening

- **Land fill gas capture and utilization**
- **Animal Manure Methane Recovery and Utilization**
- **Wind farm**

Selection and description of the project activity

- **Category: Animal Manure Methane Recovery and Utilization**
- **Activity: Captured methane is used for power generation**
- **Proponent: Muyuan Livestock Feeding Company**
- **Capacity: 180,000 heads of swine**
- **Location: Henan Province**

China



Project activity emissions

Sources	Emissions (t CO _{2e} /year)
CH ₄ From the Anaerobic Lagoon	9,244
CH ₄ from Aerobic Treatment	74
Lagoon CH ₄	118
Lagoon N ₂ O	35
Leakage	0
Total Project Emissions	9,471

Baseline emissions

Sources	Emissions (t CO _{2e} /year)
CH ₄ From the Anaerobic Lagoon	166,387
N ₂ O From the Anaerobic Lagoon	1,557
Total Baseline Emissions	167,944

Emission reduction

Total Baseline Emissions (t CO_{2e}/year)	Total Project Emissions (t CO_{2e}/year)	Total Emission Reductions (t CO_{2e}/year)
167,944	9,471	158,473

CDM projects in China

- **Approved by DNA: 8 (as of Oct 18, 2005)**
- **For approval of DNA: 3**

- **Registered: 1 (35)**
- **For registered: 2 (27)**
- **For validation (open comments): 3**

Further work

- **PREGA helps capacity building in CDM**
- **China's energy-related CDM market potential in 2010 would be 25-112 Mt-CO₂, capturing nearing 50% of world total market CDM demand.**
- **Outreach of REGA feasibility studies.**
- **Provincial capacity building for promoting REGA project cases**
- **Speed up developing more real REGA CDM projects in China**

Thanks