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INVESTING IN OUR PLANET

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# **GEF support to scaling up Renewable Energy**

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# GEF scaling up models for Renewable Energy

- First, reduce investment risks:
  - Improve and stabilize policy, regulatory and contractual frameworks
  - Facilitate access to capital (e.g. guarantee schemes)
- Second, work on a price premium system if needed:
  - Doing the above first will reduce the need and cost of a price premium

Also, not to forget:

- Quality and standardization are key
  - For the hardware and the software
- Capacity building is often needed
  - especially for mini-grid



# Leveraging investments for Geothermal in the Philippines

## Leyte-Luzon Geothermal Project

- 1995, \$30 million GEF Grant, \$1.3 billion with the World Bank
- Develop alternative to coal; Institutional support; Large private sector participation; Capacity building
- GEF support critical to government choice of geothermal vs. coal;
- 385 MW installed
- 2.2 million tCO<sub>2</sub> eq avoided

# GEF support to transforming China's renewable energy (REDP and CRESP)

\$76M grant over two major interventions drove key laws and regulations in Chinese electricity sector

Cofinancing: 7.9x



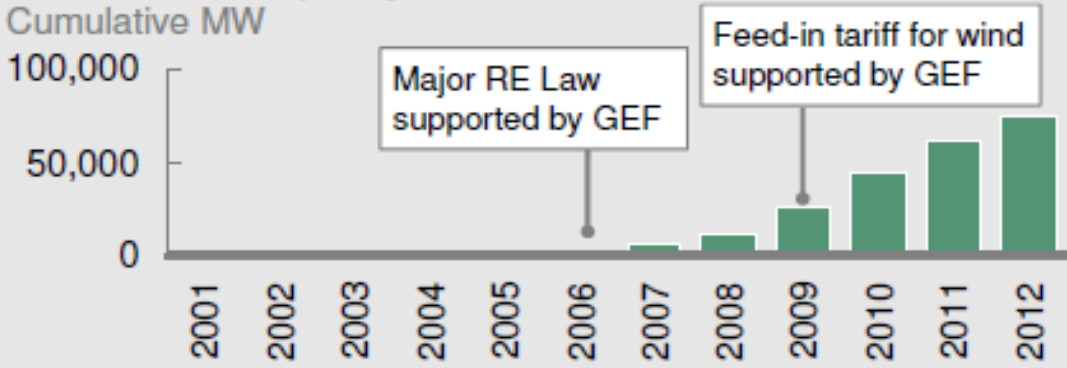
Promoted policy dialogue with National Development and Reform Commission of China



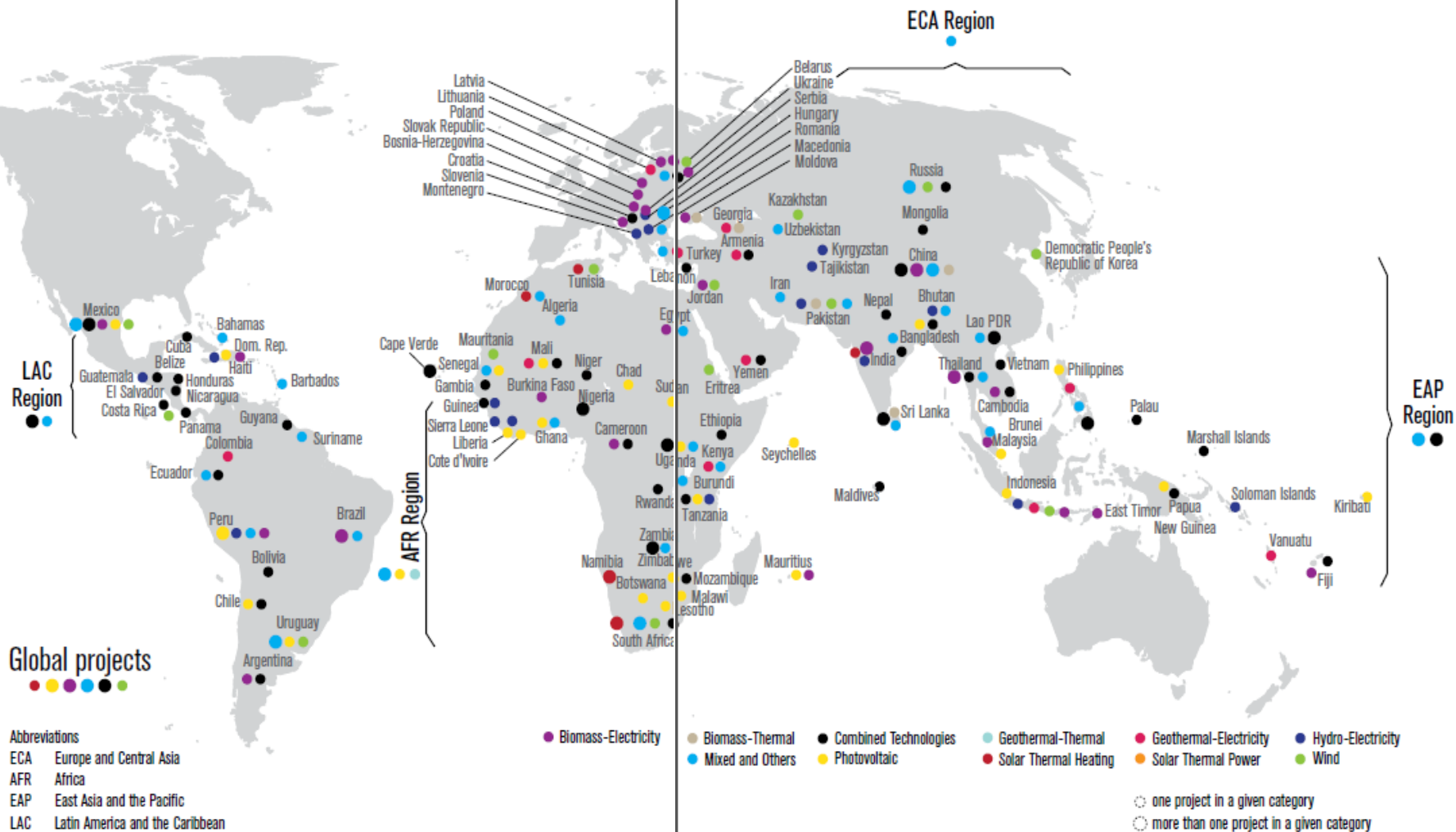
### Catalytic impact

- China's installed wind capacity increased 100-fold from 2006 to 2012, from just 760 MW to over 75 GW, and is expected to reach 150 GW by 2015
- In 2012, electricity produced from wind power grew at a rate faster than electricity from coal in China for the first time ever

### Installed wind capacity in China



# Distribution of GEF supported Renewable Energy projects





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**THANK YOU!**

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# Supporting innovation/“early adoption”

## Concentrating Solar Power (CSP) in Egypt, Morocco, Mexico

\$142M in grants to support four large-scale projects in Egypt, Morocco, Mexico and India to push concentrating solar power down the cost curve

**Cofinancing: 7.7x**



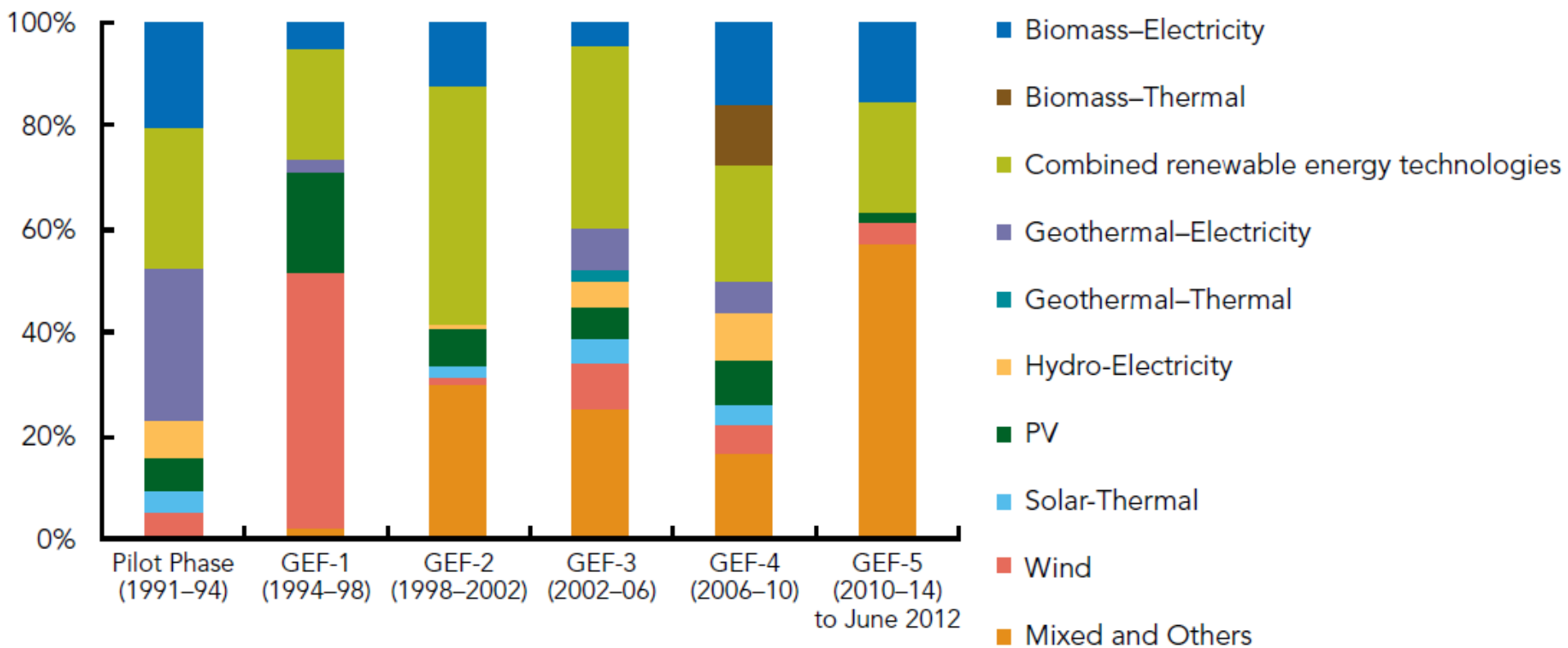
*Engaged with different partners across countries depending on policy and market context*

### Catalytic impact

- According to an independent review, program **catalyzed development of an industry / technology** where there previously had been little global activity
- Sustained GEF commitment made **CSP ready for scaled-up investment** by CTF & others
- Even projects that were less than successful, **provided key lessons learned** for future GEF and industry investments



# GEF renewable portfolio





# GEF/WB Djibouti Geothermal Power Generation Program

- **Problem Statement:** Despite proven reserves of geothermal resource and decades of study, the risk of geothermal drilling prevents commercial financing for geothermal power production
- **Project Objective:** Quantify the technical and financial feasibility of geothermal resources in the Assal Rift for mass production of electricity; unlock Djibouti geothermal potential
- **Unique Aspect:** Drilling of four production wells; recycling of GEF funding; potential for 50 MW powerplant
- **GEF Agency:** World Bank
- **Project Period:** 2012–2015
- **Financing:** GEF \$6 million; Co-financing: \$25 million

