

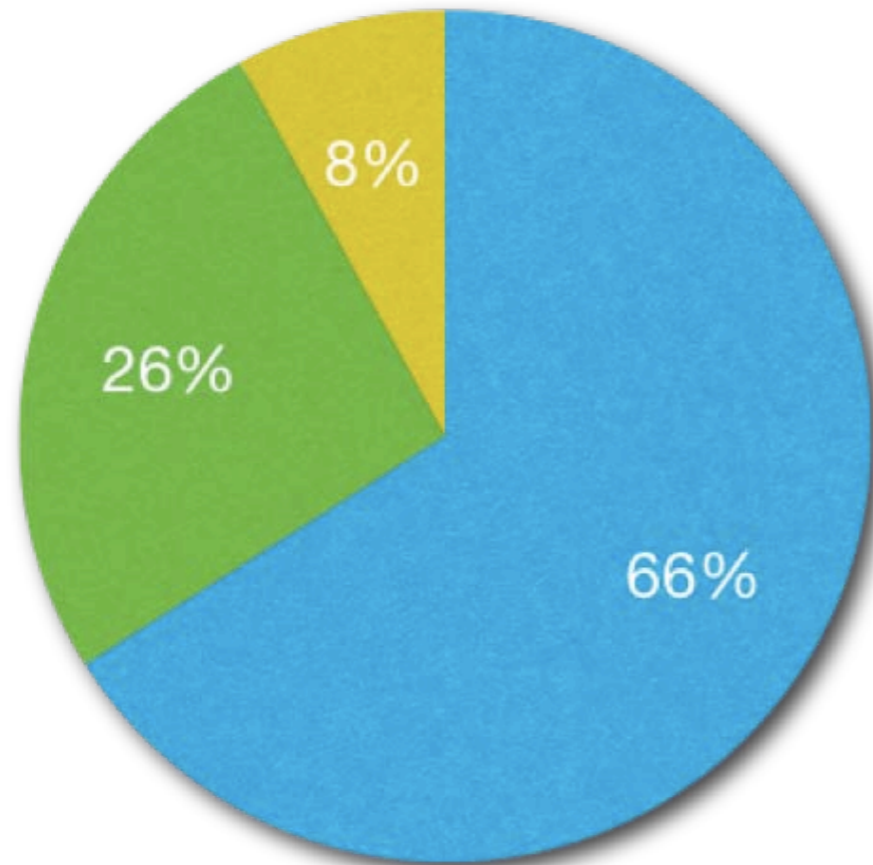


# Grounding Green Power

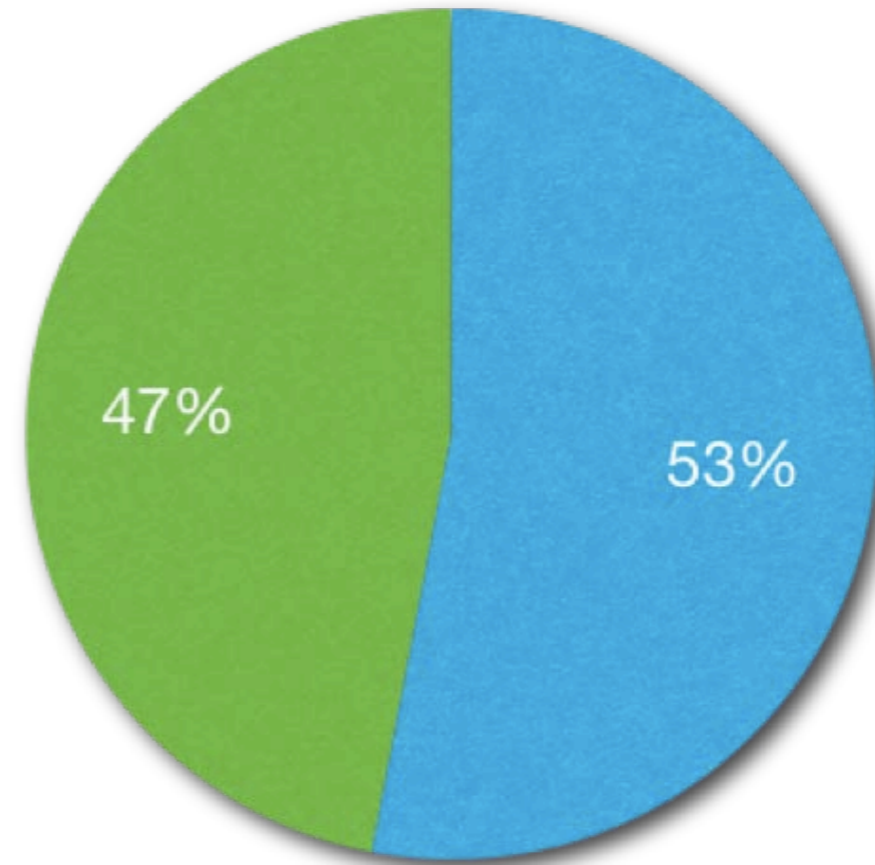
Developing Countries and Donors in the Renewable Energy Transition

Manish Bapna, Managing Director  
Lutz Weischer, Research Analyst

● Fossil Fuels ● Renewables ● Nuclear



Total World Electricity Capacity  
by Source | 2009



New Electricity Capacity Added  
Worldwide by Source | 2008-2009

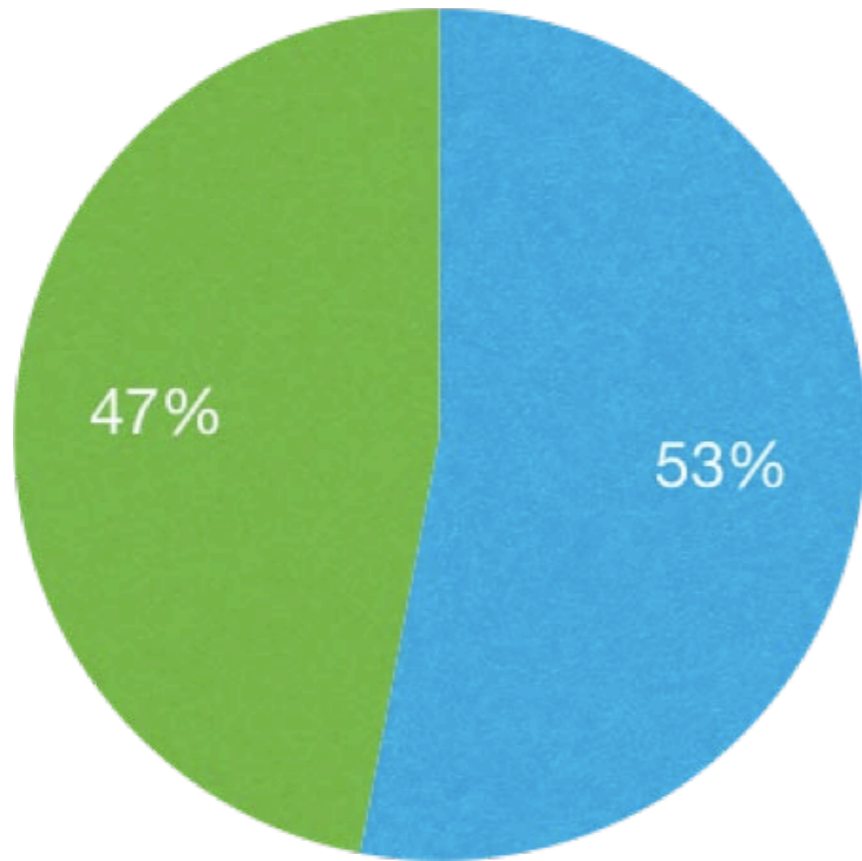
## Renewables are Growing

New capacity is likely to outpace fossil fuels

Source: *Renewables 2010 Global Status Report*. REN 21, Paris.

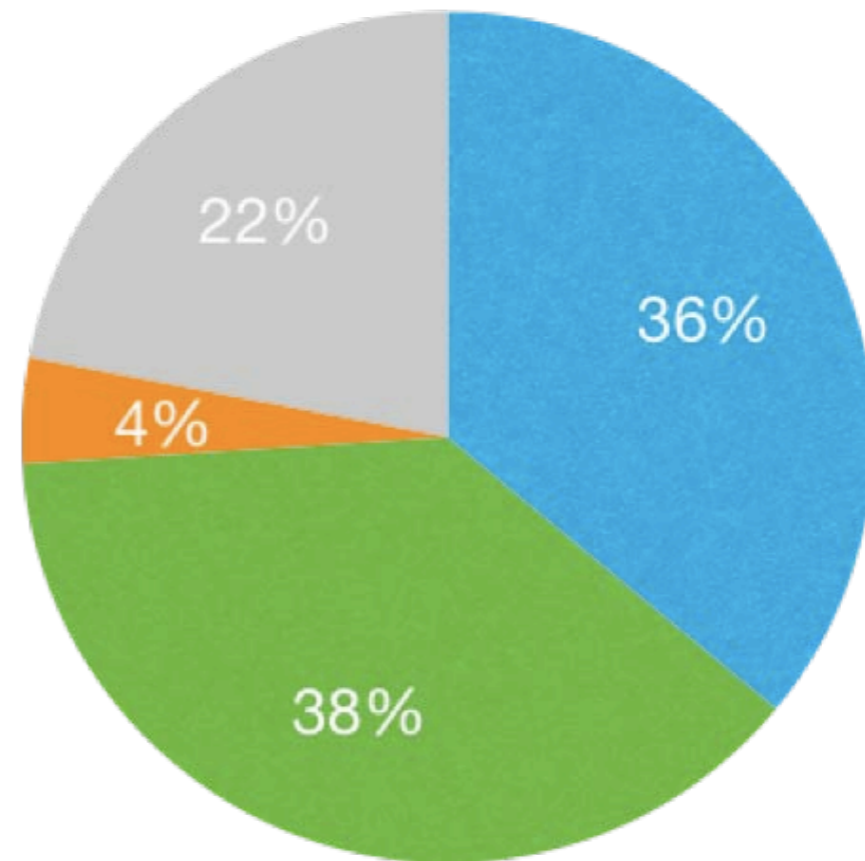
\* Renewables include large hydropower.

- Developing Countries
- Others



Current Renewable Electricity Capacity

- Developing Country Fossil
- Developing Country Renewables
- Developing Country Nuclear
- Other



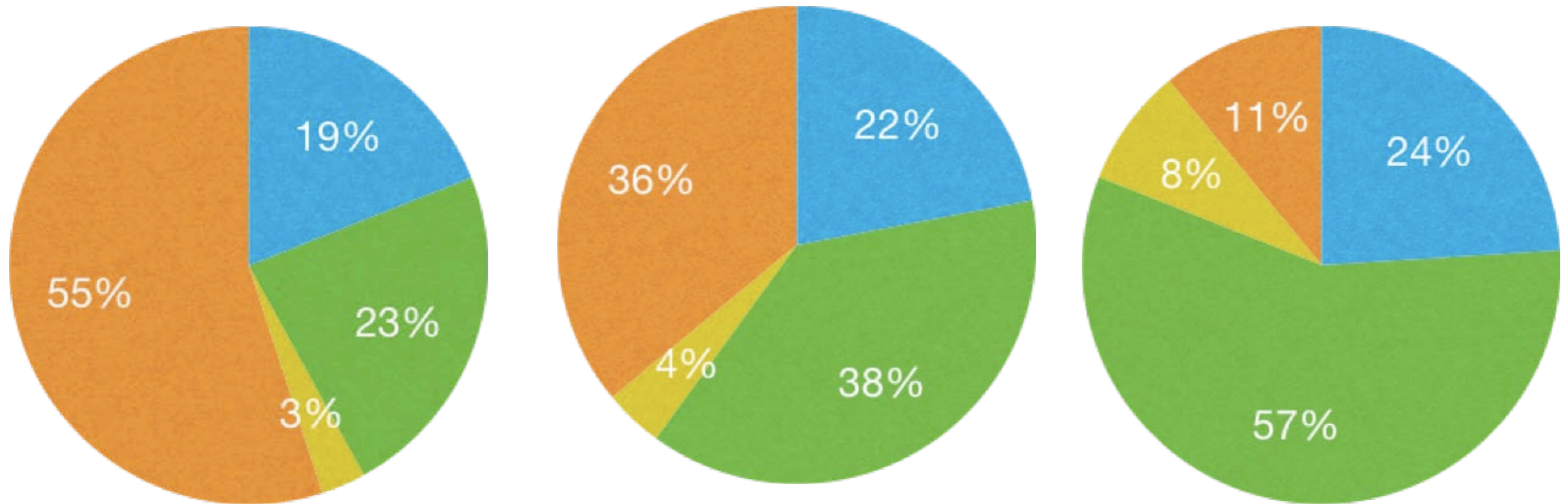
Projected New Capacity  
2008-2035 (GW)

## Developing Countries are at the Forefront

78% of total new capacity will be in developing countries. Renewables will be the largest share.

*Sources: IPCC Special Report on Renewable Energy Sources and IEA World Energy Outlook 2010 New Policy Scenario.*

● OECD Countries - All electricity sources
 ● Renewables
 ● Nuclear
 ● Fossil Fuels



Current Policy Scenario

New Policy Scenario

450 Scenario



## Current Renewable Deployment is Insufficient

We're scaling up but we need to scale up faster.

Source: IEA World Energy Outlook 2010.



WORLD  
RESOURCES  
INSTITUTE

# Challenges

We're scaling up but we need to scale up smarter.

---

- Economic barriers
- Technical barriers
- Political barriers





WORLD  
RESOURCES  
INSTITUTE

# Smart Renewable Energy Policy

## Moving from crises to opportunity

---

- Clear Objectives
- Comprehensive Approach
- Private Investment Leverage
- Cost-Effectiveness
- Innovation
- Transparency, Accountability, Participation





**From Principles to Practice**  
An evidence-based approach to smart renewable energy policy



**WORLD  
RESOURCES  
INSTITUTE**



Brazil, India, Indonesia, Kenya, Mexico, Morocco, Mozambique, South Africa, Sri Lanka, Philippines, Tanzania, Thailand

## Foundations for Our Analysis

Developing country experience



WORLD  
RESOURCES  
INSTITUTE

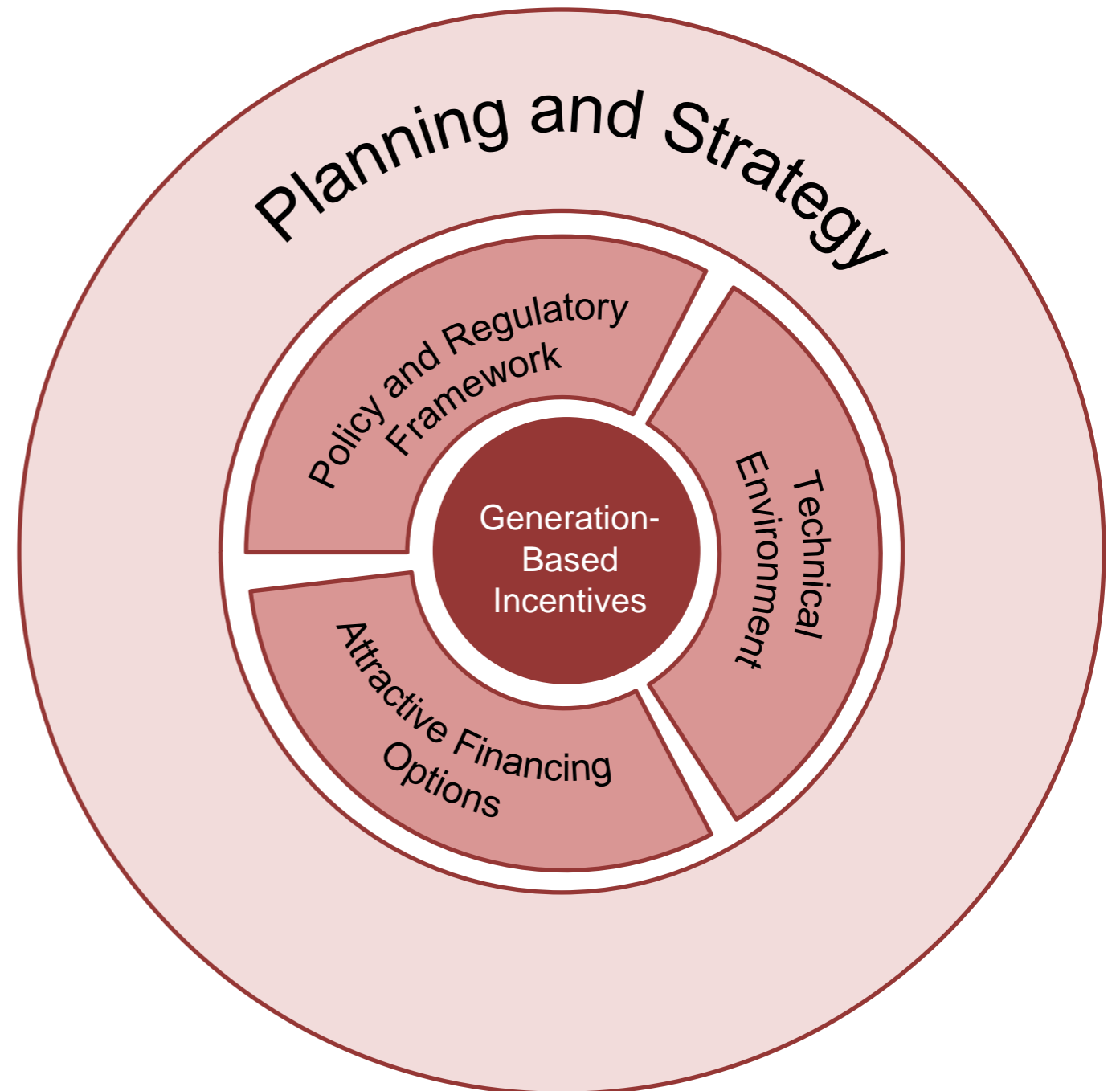




# What is Smart Renewable Energy Policy in Developing Countries?

---

- Planning and Strategy
- Generation Based Incentives
- Policy and Regulatory Framework
- Technical Capacity
- Attractive Financing



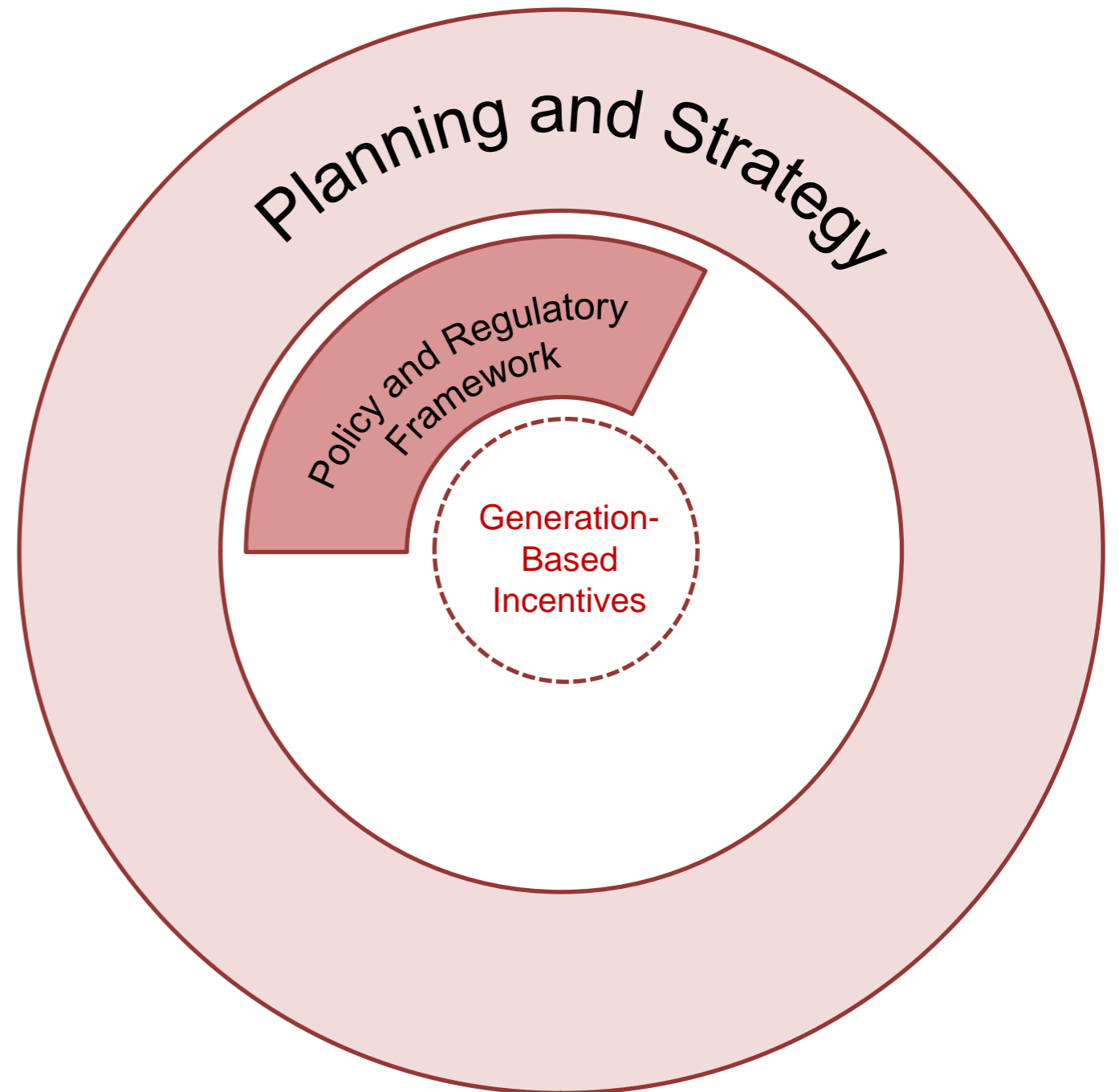


# How Can Donors Support Smart Renewable Energy Policy?

Support for policy, regulation and institutions

---

- Technical Assistance
- Capacity Building, also for Civil Society
- Experience Sharing



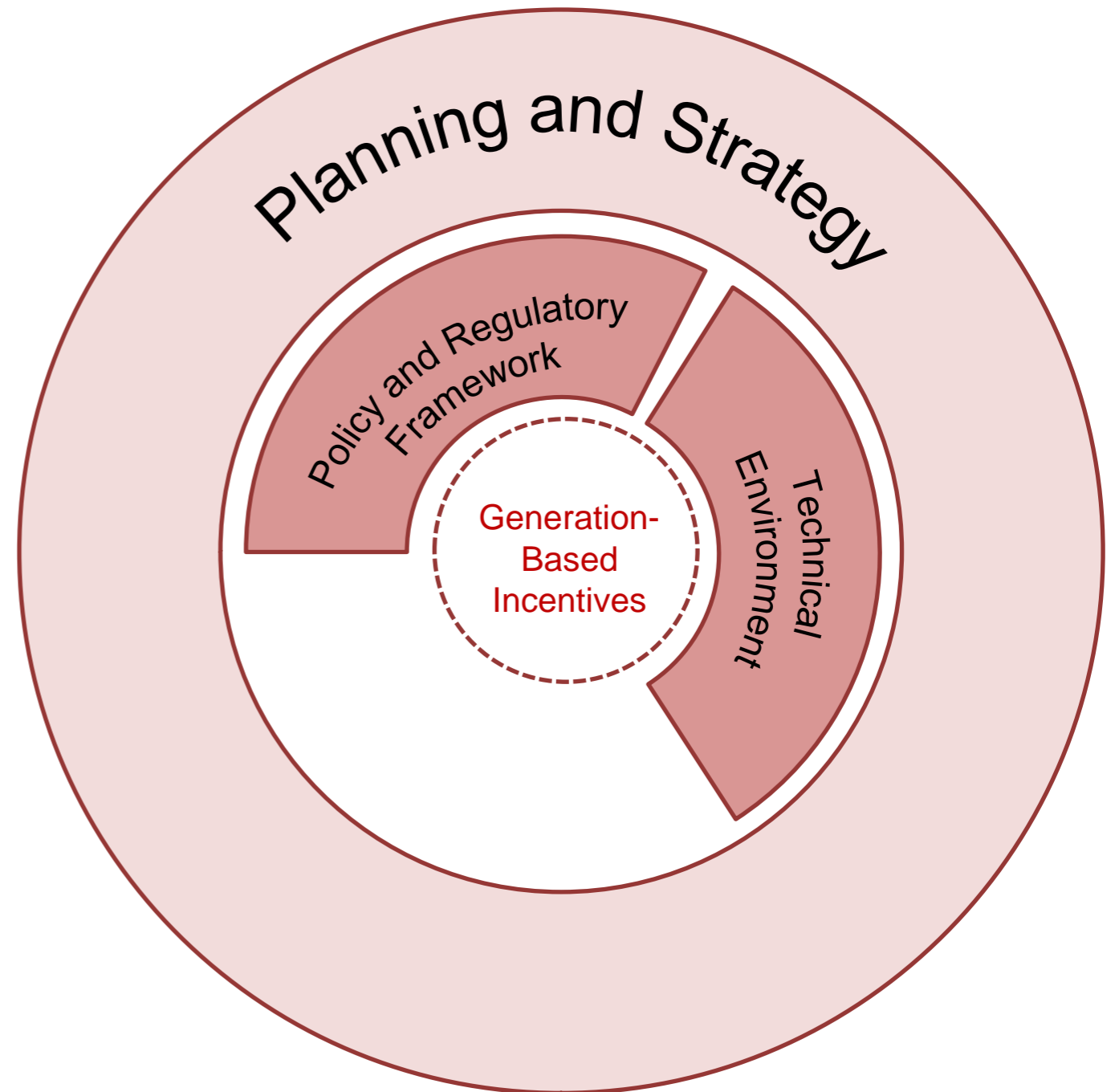


# How can donors support smart renewable energy policy?

Building technical capacity

---

- Grid
- Installation
- Maintenance
- Operations



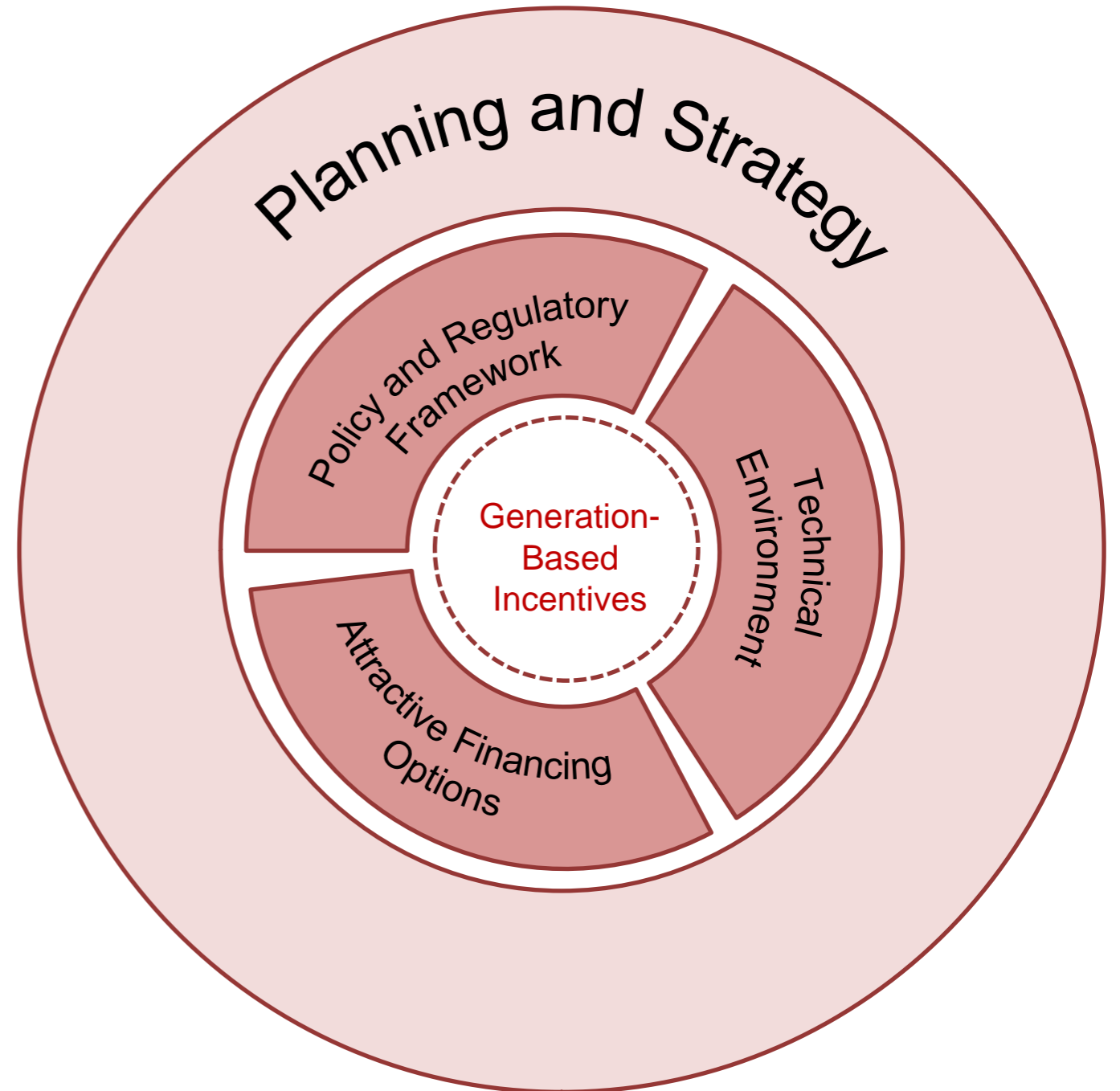


# How can donors support smart renewable energy policy?

## Concessional Finance and Risk Mitigation

---

- Concessional loans
- Loan refinancing
- Risk guarantees



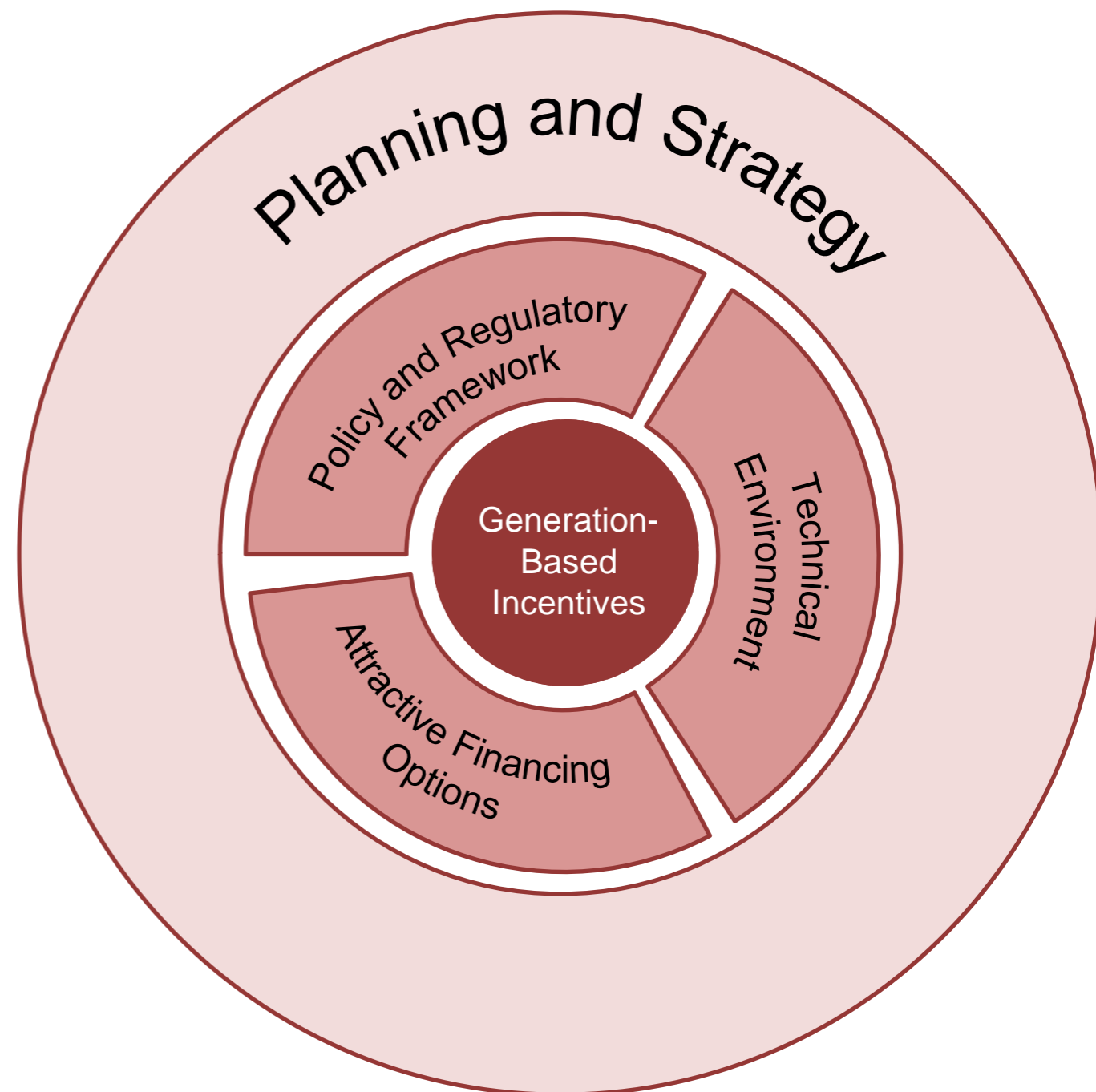


# How can donors support smart renewable energy policy?

Financing generation-based incentives

---

- No examples yet
- Large opportunities for scale up





WORLD  
RESOURCES  
INSTITUTE

# A Window of Opportunity

The moment for smart policy support

---

- New Green Climate Fund
- World Bank Energy Strategy
- U.S. Government's Investing in Clean Energy Strategy
- Norway's Energy+ Partnership Concept
- Germany's International Climate Initiative





“At a time of revolution the status quo is not a winning hand”

Robert Zoellick, President of the World Bank



WORLD RESOURCES INSTITUTE



This research was supported by the Heinrich Böll Foundation North America and the German Marshall Fund of the United States.

The slides were prepared by Edward Cameron (slides 2-7, 14-16) and Lutz Weischer (slides 8-14) with the support of Stephanie Hanson.

Photo credits: slides 1,16: Dominic Sansoni / World Bank; 5: Matthew Bates; 6,14,15: istockphoto.com; 7: Jamie Fergusson / IFC; 8: Lily Riahi.