The background of the entire page is a stylized silhouette of a world map. The map is filled with various icons representing energy and development. On the left side, there are wind turbines. In the center, there are silhouettes of people, some carrying loads on their heads or backs, and others working. On the right side, there are more wind turbines and a person carrying a basket. The map is set against a background of a sunset or sunrise, with a color gradient from orange at the top to blue at the bottom. The text "ENERGY AND DEVELOPMENT SYMPOSIUM" is overlaid on the map in a bold, orange font.

# ENERGY AND DEVELOPMENT SYMPOSIUM



# ENERGY AND DEVELOPMENT SYMPOSIUM

Energy in India: Governance and Geopolitics  
in the Context of Global Challenges


Organizers : Resource Optimization Initiative (ROI)  
Indian Institute of Management Bangalore  
The Graduate Institute of International  
and Development Studies Geneva, Switzerland  
swissnex India

Venue : Indian Institute of Management Bangalore  
Date : 28 November 2011, Monday  
Time : 0830 hrs to 1800 hrs

Audience: Scholars, policy-makers, energy experts;  
students, larger public and media  
for the roundtable discussion

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Energy has long been the engine of modern development. Today, it represents a critical challenge for many emerging and developing countries such as India. India therefore needs bold and new policies to overcome this critical challenge. India currently faces the dilemma of securing an adequate supply of energy to sustain its growth and simultaneous poverty reduction efforts. It is also confronted with depleting resources, local pressure to retain energy subsidies and considerable international pressure to switch to cleaner energy.

The symposium will discuss these issues in the broader context of the energy-development nexus. It takes place on the occasion of the launch of the latest issue of the International Development Policy series devoted to energy and development, with an article looking in particular at the energy policy options and challenges for India.

The International Development Policy series is a critical resource that analyses development policy trends and international cooperation. It is edited by the Graduate Institute of International and Development Studies, an institution dedicated to advancing world affairs. It is published both in French and English (by Palgrave MacMillan).

The symposium will examine the role of energy in development. It will look at how energy security shapes geopolitics and access to energy for countries such as India. It will further discuss the global governance of energy and its inadequacy to address growing tensions at the global and regional levels. Several authors of the latest issue of International Development Policy series will join Indian scholars and experts in debating today's energy policy options in developing countries, also questioning the role of international development cooperation in this sector.

This symposium will further represent an opportunity for the Graduate Institute, to explore the strengthening of long-term ties with Indian partners in both education and research.

# PROGRAMME

**0830 – 0900 HRS: REGISTRATION FOLLOWED BY TEA/COFFEE**

0900 – 0925 hrs:

## Session – I

Introduction and launch of  
The International Development series on Energy  
and Development 2011

0925 – 1055 hrs:

## Session – 2

Governance and geopolitics

Time	Topic	Speaker
0900 hrs	Welcome	<b>Prof. P.D. Jose</b> Indian Institute of Management Bangalore   India
0905 hrs	Introduction to the symposium	<b>Dr. Megha Shenoy</b> Research Director, Resource Optimization Initiative   Bangalore, India
0910 hrs	Launch of the International Development Policy series on Energy and Development 2011	<b>Prof. Gilles Carbonnier</b> Professor at The Graduate Institute   Geneva, Switzerland Editor-in-Chief of International Development Policy series

Time	Topic	Speaker
0925 hrs	Energy and development issues: International perspective	<b>Prof. Gilles Carbonnier</b> Professor at The Graduate Institute   Geneva, Switzerland Editor-in-Chief of International Development Policy series
0950 hrs	What are India's strategies for energy security, from a geopolitical angle?	<b>Ms. Lydia Powell</b> Head, Centre for Resources Management, Observer Research Foundation New Delhi, India
1015 hrs	Discussion with audience	

# PROGRAMME

## 1055 – 1110 HRS: TEA / COFFEE BREAK

1110 – 1240 hrs:

### Session – 3

Two faces of energy subsidies

## 1240 – 1340 HRS: LUNCH BREAK

1345 – 1515 hrs:

### Session – 4

International cooperation and development in the energy sector

Time	Topic	Speaker
1110 hrs	Subsidies for renewable energy: Policy implications for India's energy future	<b>Mr. Sanjeev Ghotge</b> Senior Fellow & Head Centre for Policy and Sustainability Research World Institute of Sustainable Energy   Pune, India
1135 hrs	Subsidies for rural energy: Analysis of current initiatives to alleviate energy poverty	<b>Mr. Siddharth Chatpalliwar</b> Research Associate Vasudha Foundation New Delhi & Bangalore, India
1200 hrs	Discussion with audience	

Time	Topic	Speaker
1345 hrs	Development aid for renewable energy and energy efficiency: old wine in new bottles?	<b>Prof. Katharina Michaelowa</b> Professor, University of Zurich   Zurich, Switzerland
1410 hrs	International collaboration for energy in India	<b>Prof. Rangan Banerjee</b> Indian Institute of Technology Bombay   India
1435 hrs	Discussion with audience	

# PROGRAMME

## 1515 – 1545 hrs: Tea / Coffee Break with Snacks

1545 – 1745 hrs:

## Session – 5

Round table – Shift to a low carbon economy

Moderated by Prof. Deepak Malghan

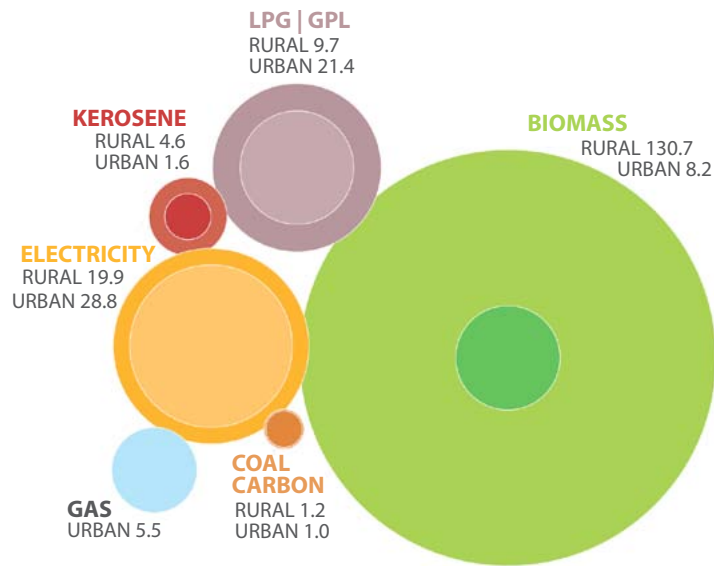
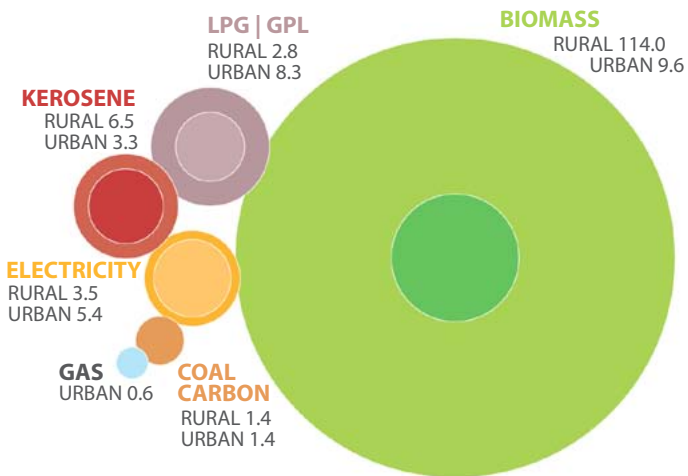
Time	Topic	Speaker
1545 hrs	Introduction	<b>Prof. Gilles Carbonnier</b> Professor at the Graduate Institute   Geneva, Switzerland Editor-in-Chief of International Development Policy series
1550 hrs		<b>Prof. Deepak Malghan</b> Indian Institute of Management Bangalore   India
1600 hrs	About the efficiency of energy efficiency: coping with the rebound effect	<b>Prof. Suren Erkman</b> Chairman, Resource Optimization Initiative   Bangalore, India Professor at University of Lausanne Lausanne, Switzerland

Time	Topic	Speaker
1610 hrs		<b>Dr. S.S. Krishnan</b> Center for Study of Science, Technology and Policy   Bangalore
1620 hrs	Renewable energy: A key low carbon option	<b>Mr. S. Chandrasekar</b> Managing Director, Boruka Power Corporation Limited   India Chairman Karnataka State Council   Bangalore, India
1630 hrs	Low-carbon development: Challenges and opportunities	<b>Prof. Katharina Michaelowa</b> Professor, University of Zurich   Zurich, Switzerland
1640 hrs	Discussion with audience	<b>Round Table Panel and Audience</b>

INDIAN ENERGY HOUSEHOLD CONSUMPTION  
IN MILLION TONS OF OIL EQUIVALENT

2005

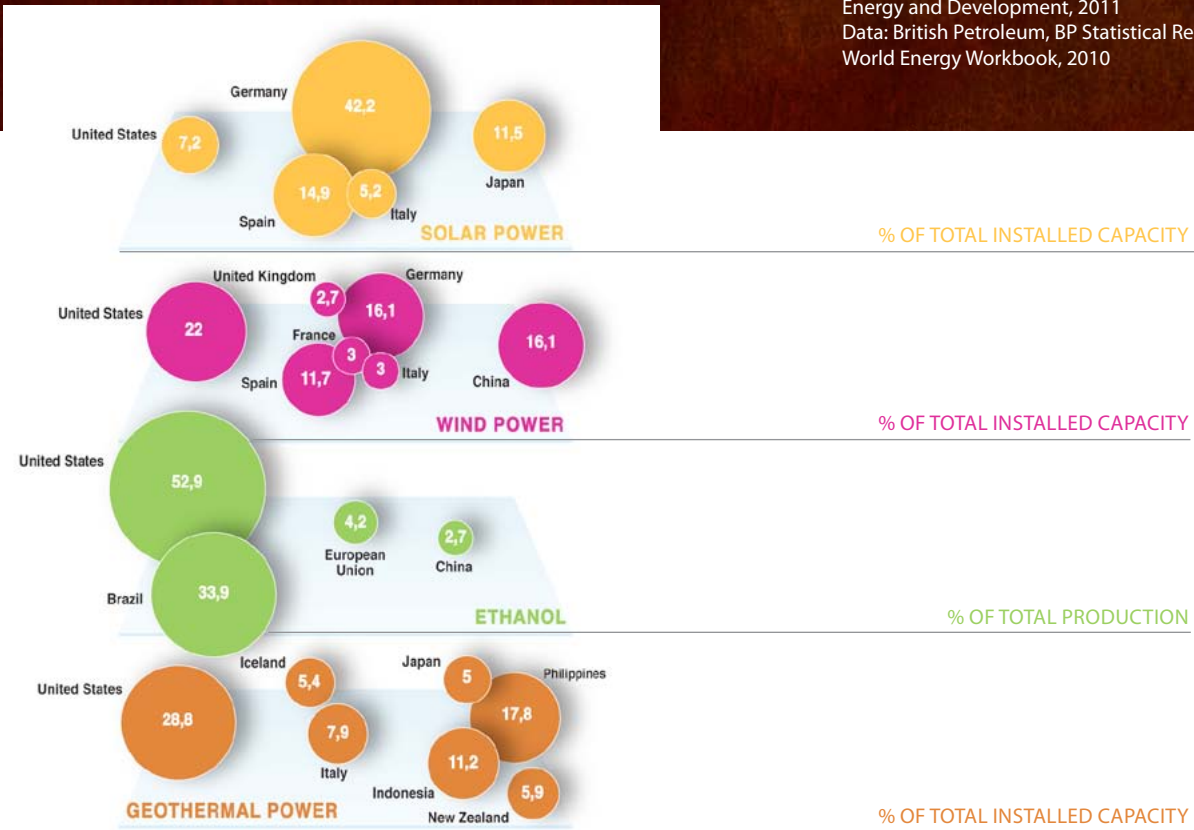
2030

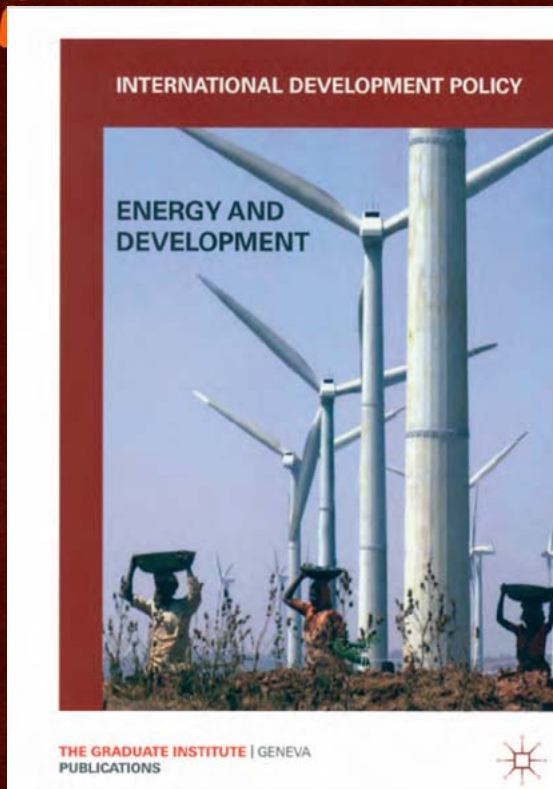


Source: International Development Policy:  
Energy and Development, 2011  
Data: IEA, World Energy Outlook 2007

# MAIN PRODUCERS OF RENEWABLE ENERGY

Source: International Development Policy:  
Energy and Development, 2011  
Data: British Petroleum, BP Statistical Review of  
World Energy Workbook, 2010





# INTERNATIONAL DEVELOPMENT POLICY: ENERGY AND DEVELOPMENT 2011

International Development Policy is a unique resource for analyses of development policy trends and international cooperation for scholars, policy-makers, development professionals and journalists. Published in both English and French, it offers a diverse range of academic views from industrialised as well as developing countries. Each issue presents in-depth coverage of a chosen theme, the latest trends in finance, trade and development policies, in addition to infographics illustrating these issues with relevant research.

The 2011 edition examines the energy-development nexus: how it has intensified with modern development, how it shapes geopolitics and access to energy, and how it highlights patchy energy governance. The authors explore today's energy policy options in developing and emerging countries while questioning the role of development aid.

International Development Policy <http://poldev.revues.org>

International Development Policy, no.2, Geneva:  
Graduate Institute Publications; Basingstoke: Palgrave Macmillan,  
2011, 224 p.  
ISBN 978-0-230-28248-3.  
Available in bookshops or online at <http://palgrave.com>



# ORGANIZERS

## Resource Optimization Initiative (ROI)

ROI is one of the first groups in the developing world to apply the theory, methods, and tools of industrial ecology to inform policy and strategies for sustainable development. ROI uses novel methods and tools to measure resource consumption, generate high quality data and synthesize this information to recommend and help implement feasible strategies for resource optimization. Implementation of recommended strategies has significantly reduced socio-economic and environmental impacts of resource consumption in manufacturing industrial estates, rural economies, and cottage scale industry clusters.

[www.roi-online.org](http://www.roi-online.org)

## Graduate Institute of International and Development Studies

Graduate Institute of International and Development Studies, is an institution of higher education and research dedicated to advancing world affairs. Located in Geneva at the heart of an international centre of multilateral governance, the Graduate Institute benefits from a rich legacy linked to the founding of the international system and the League of Nations in the 1920s and the emergence of the developing world in the 1960s.

[www.graduateinstitute.ch](http://www.graduateinstitute.ch)

## swissnex India

swissnex India is an initiative of the Swiss State Secretariat for Education and Research of the Ministry of Home Affairs and the Swiss Ministry of Foreign Affairs. It is a platform where Swiss and Indian individuals and organisations can connect. Our purpose is to share knowledge and form partnerships in science, higher education, technology, art and innovation.

[www.swissnexindia.org](http://www.swissnexindia.org)

## Indian Institute of Management, Bangalore

Established in 1973, the Indian Institute of Management, Bangalore has since then built on its base of highly accomplished faculty, world class infrastructure and motivated student body to emerge as one of the premier institutes for management education and research promoting managerial excellence in the country. IIMB strives to achieve excellence through partnerships with industry, and leading academic institutions, the world over. IIMB's mission is to "build leaders through holistic, transformative and innovative education."

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