ENERGY AND DEVELOPMENT SYMPOSIUM
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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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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 McMillan).

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.

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.
**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

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
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<tr>
<td>0900 hrs</td>
<td>Welcome</td>
<td><strong>Prof. P.D. Jose</strong>&lt;br&gt;Indian Institute of Management Bangalore</td>
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<td>0905 hrs</td>
<td>Introduction to the symposium</td>
<td><strong>Dr. Megha Shenoy</strong>&lt;br&gt;Research Director, Resource Optimization Initiative</td>
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<td>0910 hrs</td>
<td>Launch of the International Development Policy series on Energy and Development 2011</td>
<td><strong>Prof. Gilles Carbonnier</strong>&lt;br&gt;Professor at The Graduate Institute</td>
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**0925 – 1055 hrs:**
**Session – 2**
Governance and geopolitics

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<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
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<tr>
<td>0925 hrs</td>
<td>Energy and development issues: International perspective</td>
<td><strong>Prof. Gilles Carbonnier</strong>&lt;br&gt;Professor at The Graduate Institute</td>
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<td>0950 hrs</td>
<td>What are India’s strategies for energy security, from a geopolitical angle?</td>
<td><strong>Ms. Lydia Powell</strong>&lt;br&gt;Head, Centre for Resources Management, Observer Research Foundation</td>
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<td>1015 hrs</td>
<td>Discussion with audience</td>
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<td>Time</td>
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<td>1055 hrs</td>
<td><strong>TEA / COFFEE BREAK</strong></td>
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<td>1110 hrs</td>
<td><strong>Session – 3</strong></td>
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<tr>
<td>1110 hrs</td>
<td>Two faces of energy subsidies</td>
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| 1110 hrs | Subsidies for renewable energy: Policy implications for India’s energy future | **Mr. Sanjeev Ghotge**  
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 | **Mr. Siddharth Chatpalliwar**  
Research Associate  
Vasudha Foundation  
New Delhi & Bangalore, India |
| 1200 hrs | Discussion with audience                                              |                                                                         |
| 1240 hrs | **LUNCH BREAK**                                                       |                                                                         |
| 1345 hrs | **Session – 4**                                                        |                                                                         |
| 1345 hrs | International cooperation and development in the energy sector        |                                                                         |
| 1345 hrs | Development aid for renewable energy and energy efficiency: old wine in new bottles? | **Prof. Katharina Michaelowa**  
Professor, University of Zurich  
Zurich, Switzerland |
| 1410 hrs | International collaboration for energy in India                       | **Prof. Rangan Banerjee**  
Indian Institute of Technology  
Bombay, India |
| 1435 hrs | Discussion with audience                                              |                                                                         |
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

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<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Speaker</th>
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| 1545 hrs| Introduction                                                          | **Prof. Gilles Carbonnier**
Professor at the Graduate Institute | **Prof. Gilles Carbonnier**
Professor at the Graduate Institute | **Prof. Gilles Carbonnier**
Professor at the Graduate Institute |
|         |                                                                       | Professor at the Graduate Institute | Geneva, Switzerland | Editor-in-Chief of International Development Policy series | Geneva, Switzerland |
| 1550 hrs|                                                                       | **Prof. Deepak Malghan**
Indian Institute Management Bangalore | **Prof. Deepak Malghan**
Indian Institute Management Bangalore | **Prof. Deepak Malghan**
Indian Institute Management Bangalore | India |
| 1600 hrs| About the efficiency of energy efficiency: coping with the rebound effect | **Prof. Suren Erkman**
Chairman, Resource Optimization Initiative | **Prof. Suren Erkman**
Chairman, Resource Optimization Initiative | **Prof. Suren Erkman**
Chairman, Resource Optimization Initiative | Bangalore, India |
|         |                                                                       | Professor at University of Lausanne | Professor at University of Lausanne | Professor at University of Lausanne | Lausanne, Switzerland |
| 1610 hrs|                                                                       | **Dr. S.S. Krishnan**
Center for Study of Science, Technology and Policy | **Dr. S.S. Krishnan**
Center for Study of Science, Technology and Policy | **Dr. S.S. Krishnan**
Center for Study of Science, Technology and Policy | Bangalore |
| 1620 hrs| Renewable energy: A key low carbon option                              | **Mr. S. Chandrasekar**
Managing Director, Bhoruka Power Corporation Limited | **Mr. S. Chandrasekar**
Managing Director, Bhoruka Power Corporation Limited | **Mr. S. Chandrasekar**
Managing Director, Bhoruka Power Corporation Limited | India |
|         |                                                                       | Chairman, Karnataka State Council | Chairman, Karnataka State Council | Chairman, Karnataka State Council | Bangalore, India |
| 1630 hrs| Low-carbon development: Challenges and opportunities                    | **Prof. Katharina Michaelowa**
Professor, University of Zurich | **Prof. Katharina Michaelowa**
Professor, University of Zurich | **Prof. Katharina Michaelowa**
Professor, University of Zurich | Zurich, Switzerland |
|         |                                                                       |                                                                         |                                                                         |                                                                         | Switzerland |
| 1640 hrs| Discussion with audience                                               | **Round Table Panel and Audience**                                     | **Round Table Panel and Audience**                                     | **Round Table Panel and Audience**                                     |
INDIAN ENERGY HOUSEHOLD CONSUMPTION
IN MILLION TONS OF OIL EQUIVALENT

2005

KEROSENE
RURAL 6.5
URBAN 3.3

ELECTRICITY
RURAL 3.5
URBAN 5.4

GAS
URBAN 0.6

LPG | GPL
RURAL 2.8
URBAN 8.3

Biomass
RURAL 114.0
URBAN 9.6

2030

KEROSENE
RURAL 4.6
URBAN 1.6

ELECTRICITY
RURAL 19.9
URBAN 28.8

GAS
URBAN 5.5

COAL CARBON
RURAL 1.4
URBAN 1.4

LPG | GPL
RURAL 9.7
URBAN 21.4

Biomass
RURAL 130.7
URBAN 8.2

Source: International Development Policy:
Energy and Development, 2011
Data: IEA, World Energy Outlook 2007
MAIN PRODUCERS OF RENEWABLE ENERGY

Data: British Petroleum, BP Statistical Review of World Energy Workbook, 2010
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
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

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

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

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.”

www.iimb.ernet.in