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DEVELOPMENT

## Greening the Energy Sector - Role of International Organizations

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UNEP Risoe centre



*Green Growth and Climate Change Negotiations*

*25<sup>th</sup> Anniversary Conference of KEEI. September 6, 2011*



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## Topics for Presentation

- Focus on inter-governmental organizations, but other international energy organizations influential too
- Dedicated international energy organizations
- World Bank and regional development banks
- United Nations
  - UN Energy & AGECC
  - UN SG energy focus & initiative for Rio+20
  - UNEP examples
- Fitting the pieces together
- Concluding reflections



## Wide variety of international organizations

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# Intergovernmental energy organizations



International  
Energy Agency

- Energy security
- Environmental protection
- Economic growth
- Engagement worldwide

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- **The International Energy Agency (IEA)** is an autonomous organization which works to ensure reliable, affordable and clean energy for its 28 member countries and beyond.

Founded in response to the 1973/4 oil crisis, the IEA's initial role was to help countries co-ordinate a collective response to major disruptions in oil supply through the release of emergency oil stocks to the markets.

While this continues to be a key aspect of its work, the IEA has evolved and expanded. It is at the heart of global dialogue on energy, providing authoritative and unbiased research, statistics, analysis and recommendations.

Today, the IEA's four main areas of focus are:

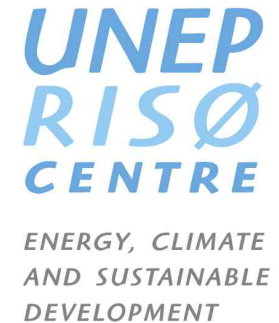
- **Energy security**
- **Economic development**
- **Environmental awareness**
- **Engagement worldwide**

IEA is increasingly operating globally and working closely with non-member countries.

Strong role on energy policy and technology information like the WEO



# Intergovernmental energy organizations

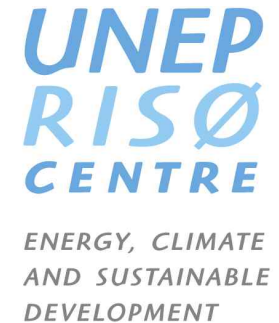


## The International Atomic Energy Agency:

- is an independent intergovernmental, science and technology-based organization, in the United Nations family, that serves as the global focal point for nuclear cooperation;
- assists its Member States, in the context of social and economic goals, in planning for and using nuclear science and technology for various peaceful purposes, including the generation of electricity, and facilitates the transfer of such technology and knowledge in a sustainable manner to developing Member States;
- develops nuclear safety standards and, based on these standards, promotes the achievement and maintenance of high levels of safety in applications of nuclear energy, as well as the protection of human health and the environment against ionizing radiation;
- verifies through its inspection system that States comply with their commitments, under the Non-Proliferation Treaty and other non-proliferation agreements, to use nuclear material and facilities only for peaceful purposes.



## Intergovernmental energy organizations



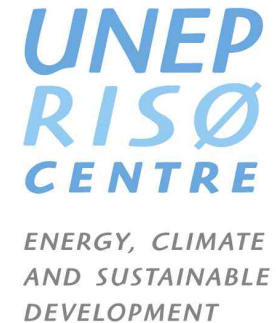
### IRENA's functions:

- Collect renewable energy related information and knowledge, and analyse and disseminate current renewable energy practices
- Foster international exchanges about renewable energy policy and its framework conditions. Provide relevant policy advice and assistance.
- Improve renewable energy knowledge that facilitates technology transfer and promotes the development of local capacity and competence.
- Promote capacity building services such as training and education.
- Provide information and advice on the financing mechanisms available for renewable energy projects.
- Stimulate and encourage research (including on socio-economic issues), by fostering research networks to undertake joint research, development and deployment of technologies.
- Provide information about the development and deployment of national and international technical standards in relation to renewable energy
- Disseminate knowledge and information and increase public awareness on the benefits and potential offered by renewable energy.





## Three very different institutions



- **IEA** – an OECD country based organization but with an increasing global reach on policy analysis e.g. the WEO, research coordination, plays an active role in G8 initiatives and is closely collaborating with the UN & World Bank, etc.
- **IAEA** – UN organization with a strong role on nuclear safety guidelines, inspection and control, plus elements of power system technical support and promotion of nuclear power
- **IRENA** – new intergovernmental organization with around 85 member states with wide regional distribution, strong mandate to promote RE, member based funding but limited experience and internal capacity to implement an ambitious work program. This is likely to change over time and IRENA is still in the process of finding its role in the global institutional architecture.

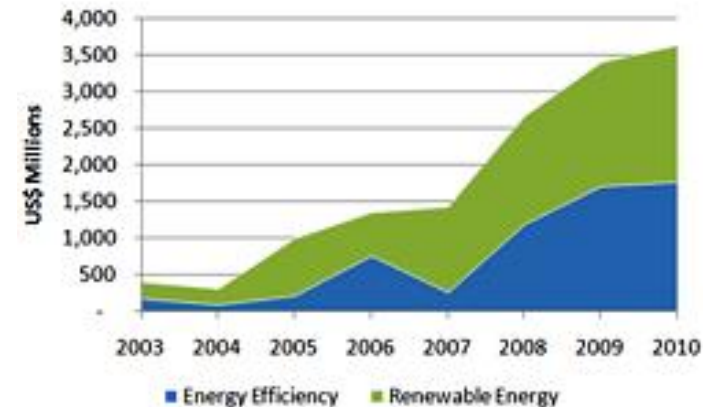


## World Bank and RDBs



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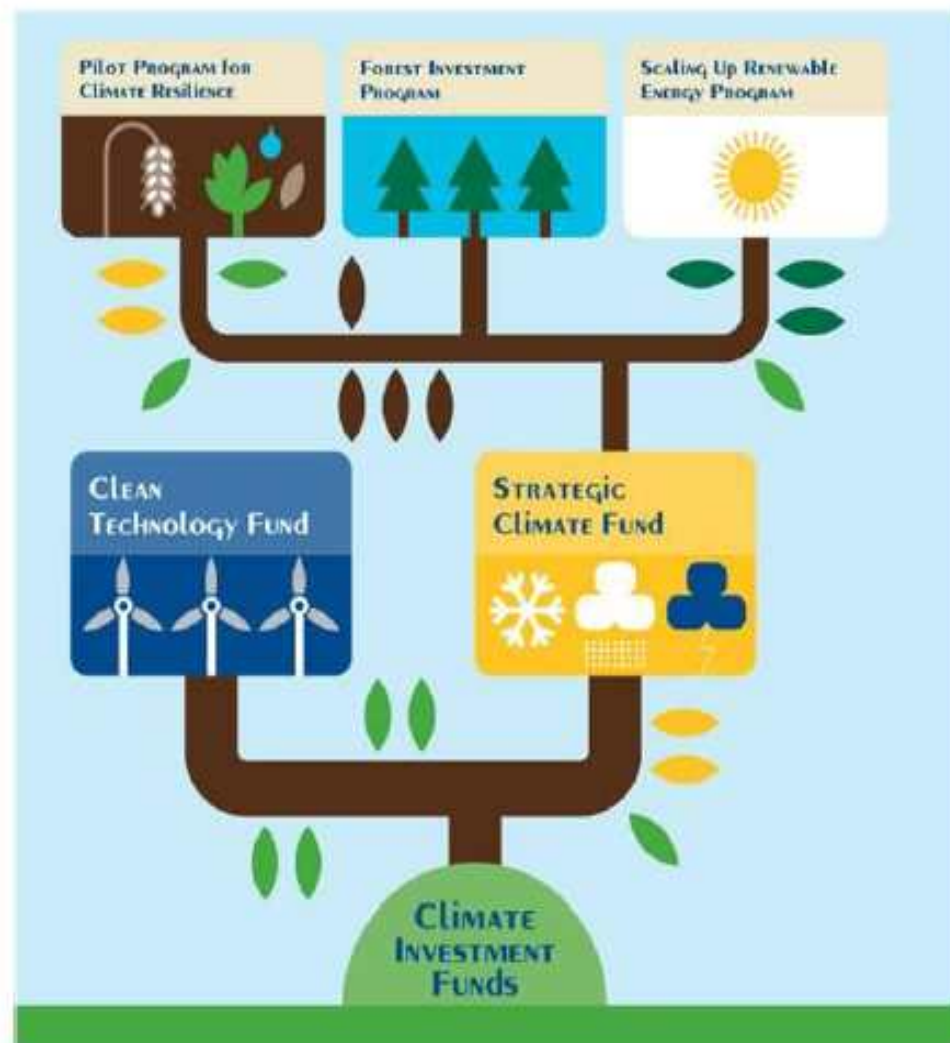
- The World Bank Group has been increasing engagement in the energy sector the last decade through investments, policy advice, capacity building, and technical assistance. In 2010 the WBG invested \$13 billion in the energy sector, the highest-ever annual amount.
- The Bank Group's lending for low-carbon energy projects and programs rose 62 percent in 2010, to reach more than \$5.5 billion, an all-time high, representing more than 42 percent of all energy financing.





# Mobilizing public finance through Climate Investment Funds (CIF)

Clean Technology Fund (CTF): Finances demonstration, deployment, and transfer of low carbon technologies  
Total commitment: \$4.5 billion  
Leveraged: \$37 billion

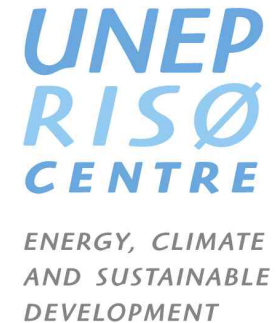


Strategic Climate Fund (SCF): Targeted programs to pilot new approaches and scale-up:  
Total commitment: \$1.9 billion

Approved in July 2008 as an interim instrument, CIF have balanced governance with equal representation from developed and developing countries



## RDB's – case of ADB



### ADB's Clean Energy Program

- Clean energy both for poverty eradication and climate change purposes has become one of ADB's highest priorities, with 27%, of the total approved loans in 2008 supporting projects with clean energy components.
- ADB's Clean Energy Program is multi-pronged. It seeks to increase regional energy efficiency in energy, transport and urban sectors; to adopt renewable energy sources; and to improve access to energy for the poor and remote regions - avoiding the use of traditional biomass.
- The clean energy program seeks to meet energy security needs, facilitate a transition to a low-carbon economy, universal access to energy, and achieve ADB's vision of a region free of poverty.
- With high levels of confidence for clean energy investments, ADB's Energy Policy targets the annual lending for related programs to \$2 billion by 2013.



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## Energy in the UN system

- Almost all UN organizations and institutions have an energy program related to its topical mandate, be it education, industry, population etc.
- Since 2004 the UN-Energy has been the mechanism to promote coherence within the United Nations in the energy field and promoting increased collective engagement.
- Lead agencies are generally UNIDO (UN Energy chair), UNDP, UNEP, FAO, IAEA og UN DESA.
- Thematic focus areas are i) Energy Access; ii) Renewable Energy and iii) Energy Efficiency

UN-Energy currently consists of 21 members and includes:

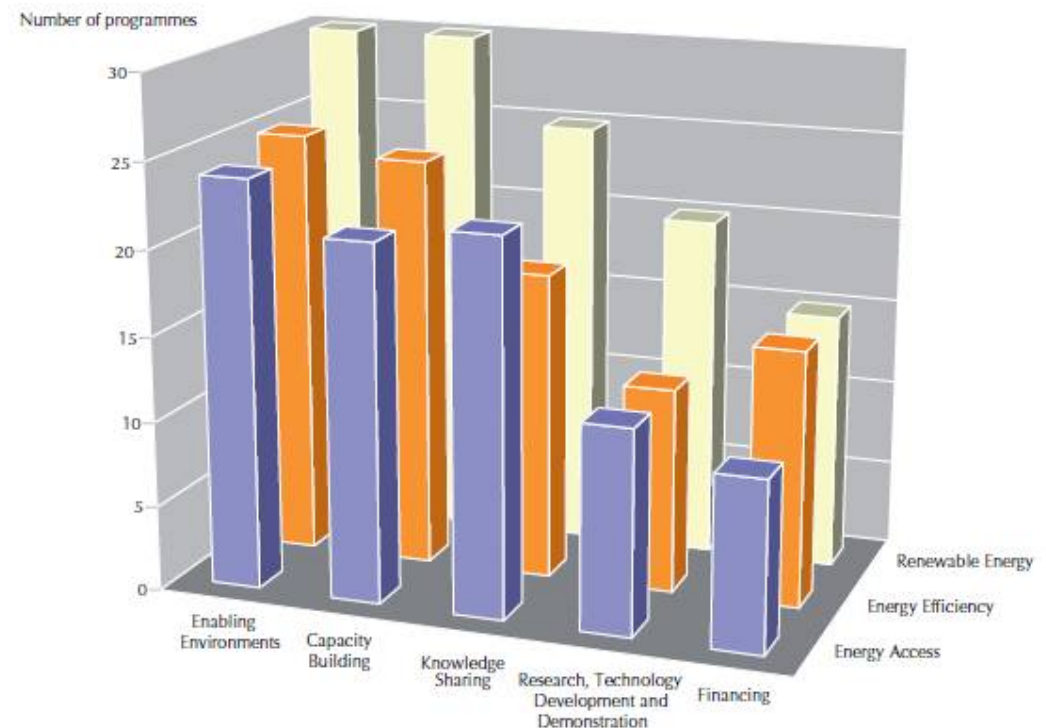
Food and Agriculture Organization (FAO) <a href="http://www.fao.org">www.fao.org</a>	United Nations Educational, Scientific and Cultural Organization (UNESCO) <a href="http://www.unesco.org">www.unesco.org</a>
Global Environment Facility (GEF) <a href="http://www.thegef.org">www.thegef.org</a>	United Nations Environment Programme (UNEP) <a href="http://www.unep.org">www.unep.org</a>
International Atomic Energy Agency (IAEA) <a href="http://www.iaea.org">www.iaea.org</a>	United Nations Framework Convention on Climate Change (UNFCCC) <a href="http://www.unfccc.int">www.unfccc.int</a>
United Nations Conference on Trade and Development (UNCTAD) <a href="http://www.unctad.org">www.unctad.org</a>	United Nations Human Settlements Programme (UNHABITAT) <a href="http://www.unhabitat.org">www.unhabitat.org</a>
United Nations Department of Economic and Social Affairs (UN DESA) <a href="http://www.un.org/esa/desa">www.un.org/esa/desa</a>	United Nations Industrial Development Organization (UNIDO) <a href="http://www.unido.org">www.unido.org</a>
United Nations Development Programme (UNDP) <a href="http://www.undp.org">www.undp.org</a>	United Nations International Research and Training Institute for the Advancement of Women (UN-INSTRAW) <a href="http://www.un-instraw.org">www.un-instraw.org</a>
United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) <a href="http://www.unescap.org">www.unescap.org</a>	United Nations System Chief Executives Board for Coordination (CEB) Secretariat <a href="http://www.unsystemceb.org">www.unsystemceb.org</a>
United Nations Economic and Social Commission for Western Asia (UNESCWA) <a href="http://www.escwa.org.lb">www.escwa.org.lb</a>	World Bank (WB) <a href="http://www.worldbank.org">www.worldbank.org</a>
United Nations Economic Commission for Africa (UNECA) <a href="http://www.uneca.org">www.uneca.org</a>	World Health Organization (WHO) <a href="http://www.who.org">www.who.org</a>
United Nations Economic Commission for Europe (UNECE) <a href="http://www.unece.org">www.unece.org</a>	World Meteorological Organization (WMO) <a href="http://www.wmo.ch">www.wmo.ch</a>
United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) <a href="http://www.eclac.cl">www.eclac.cl</a>	

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**Overview of UN Energy members  
and areas of work.**

**In total around 15 billion USD**





## AGECC



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UN Secretary General's Advisory Group on Energy and Climate Change – AGECC introduced in 2010 a new set of international targets for energy development:

- **Universal access to modern energy services by 2030**
- **Reduction of energy intensity by 40% by 2030**

And during 2011 a new target has been promoted

- **30% renewables in the global energy mix by 2030**

**In the negotiations up to Rio +20 these targets are under discussion**





## UNEP's work on energy and mitigation



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**Help developing countries to build 'readiness' for green energy uptake and scale-up** (attracting and effectively using public and private finance)

### ***Summary of activities:***

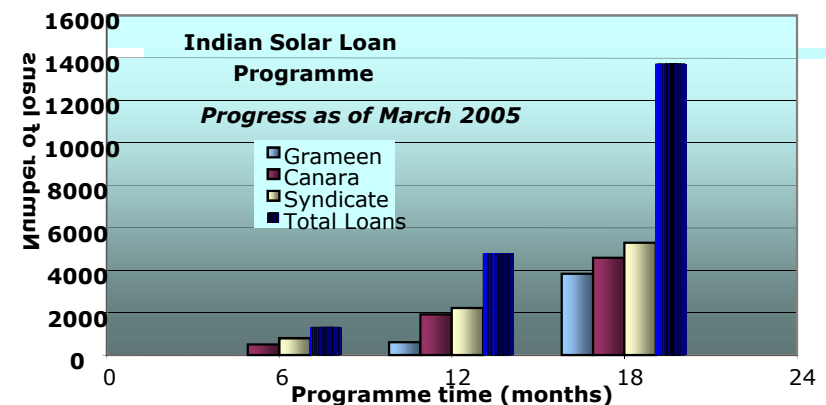
- ***I. Green Economy Assessments***
  - Green Economy Scoping Studies
  - Green Sector Studies
- ***II. Clean Tech Assessment, Policy and Technical Support***
  - National Climate Change Mitigation Plans
  - Renewable Energy and Energy Efficiency Potentials
  - National Technology Action Plans
  - Energy Performance Standards
- ***III. Catalysing Financing of Cleaner Technologies***
  - Public Finance
  - Mobilizing Innovation Finance
  - Scaling-up Clean Tech Installations
  - Carbon Finance
  - SME Development



# Financing the Customers of SMEs

**In markets where small scale clean energy is economically viable,  
....why aren't banks lending ?  
.... and, what can be done about it ?**

- **Example** – Indian Solar Loan Programme
  - State of Karnataka, Solar Home Systems, 2003 - 2006
- **Before:** many SHS vendors, small total sales, **little credit**
- **During:** consumer finance programme offered through Canara bank and Syndicate bank, **interest rate subsidy**, 16,000+ systems financed, other banks starting to lend
- **After:** **subsidy phased out**, banks continuing to lend, although lose market share in an increasingly competitive credit market
- **Real Driver** -> **access** to financing provided through 2076 bank branches



## *African Rural Energy Enterprise Development Initiative (AREED)*

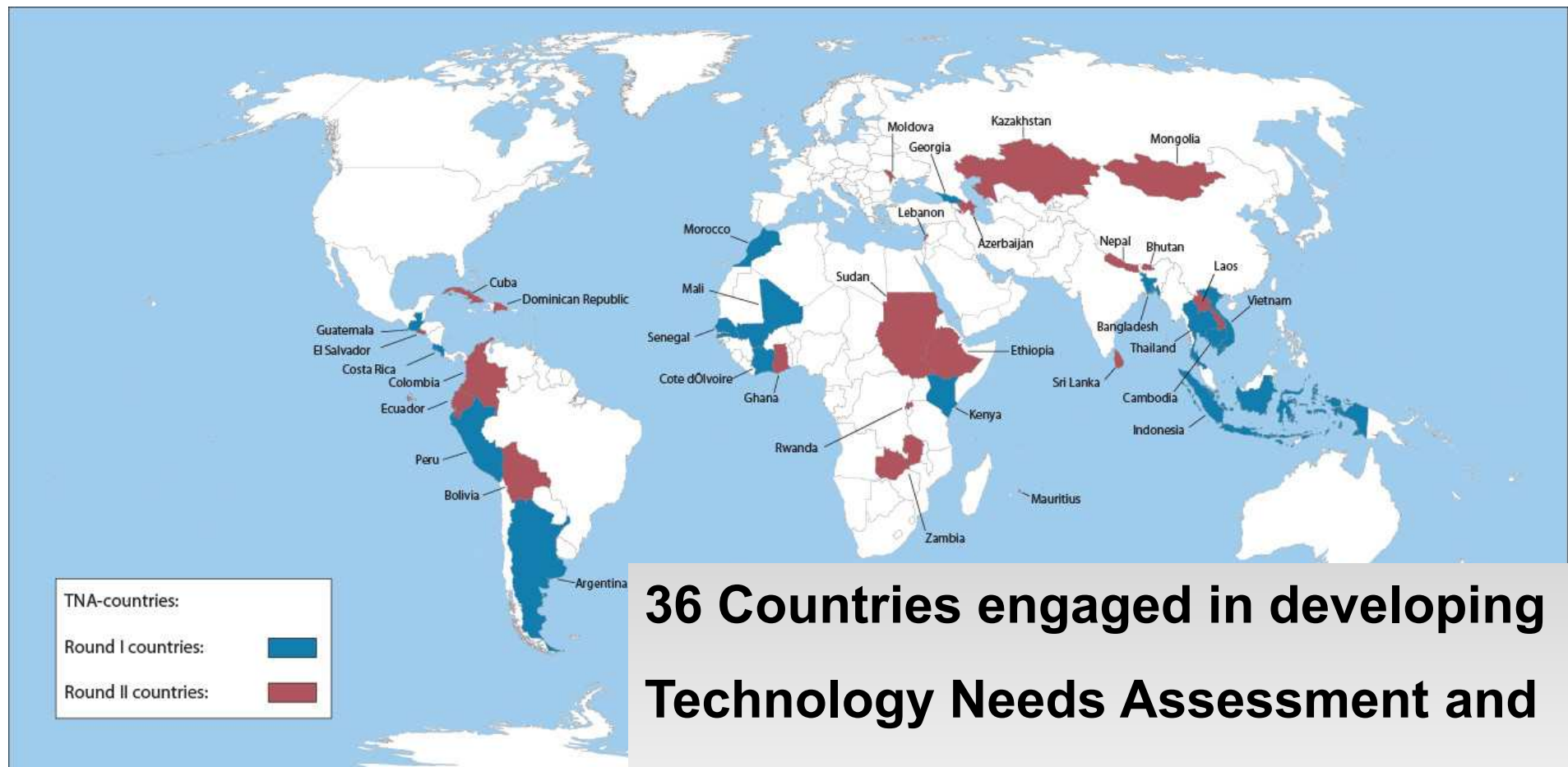
*‘fostering renewable energy companies  
that meet the needs of the rural poor’*



Photo: BP Solar

- engages the private sector to provide distributed energy services based on clean and renewable energy technologies
- uses an approach that couples enterprise development ‘hand-holding’ with modest amounts of start-up financing

# UNEP & GEF Supported Action TNA->TAP->LCDS->NAMAs







## ***Facilitating Implementation and Readiness for Mitigation (FIRM) Moving from TAPs to LCDS***

- i. UNEP will with support from the Danish Government assist seven developing countries strengthen their national low carbon development strategies and get a “quick start” on NAMAs, building directly on their TNA/TAP program
- ii. The focus will be on reducing emissions of greenhouse gases in ways that also contribute to national development goals, such as creating jobs, enhancing energy security, and reducing the local environmental impacts of conventional energy technologies

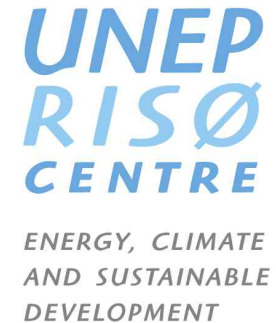
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## (How) Does it all fit together



- With so many different institutions involved internationally, combined with bilateral entities active in the same space , the challenge of external and internal coordination is critical for successful efforts in most countries. Several modalities exist already:
  - Bilateral donor coordination in “crowded” DCs
  - UN resident coordinator for UN led work
  - National climate and energy committees
  - International coordination e.g. on CDM, LEDS, etc
  - Informal coordination and collaboration among practitioners in the various organizations and lots of joint activities.

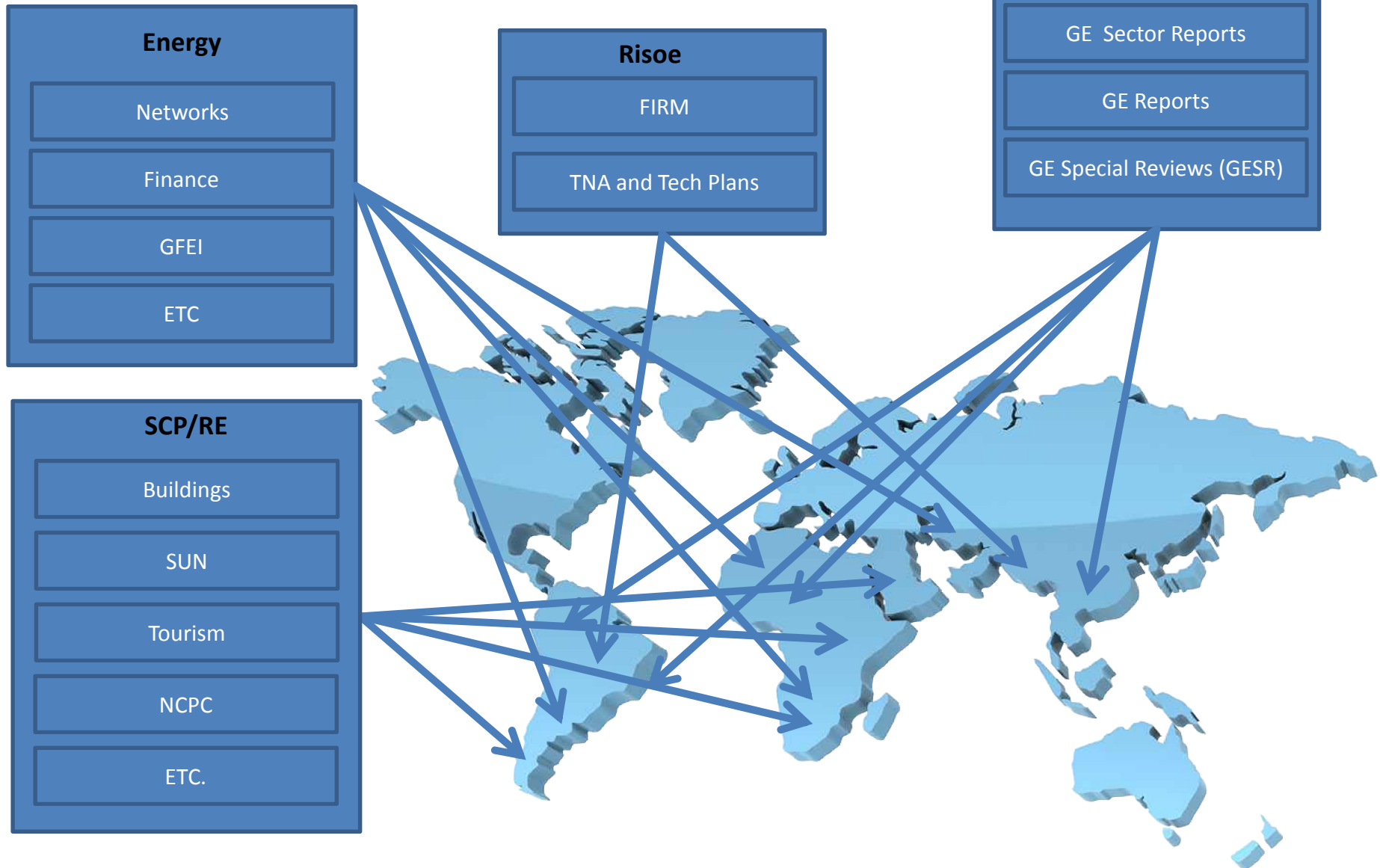
**It's all good but does it add up to anything?**

**UNEP example**

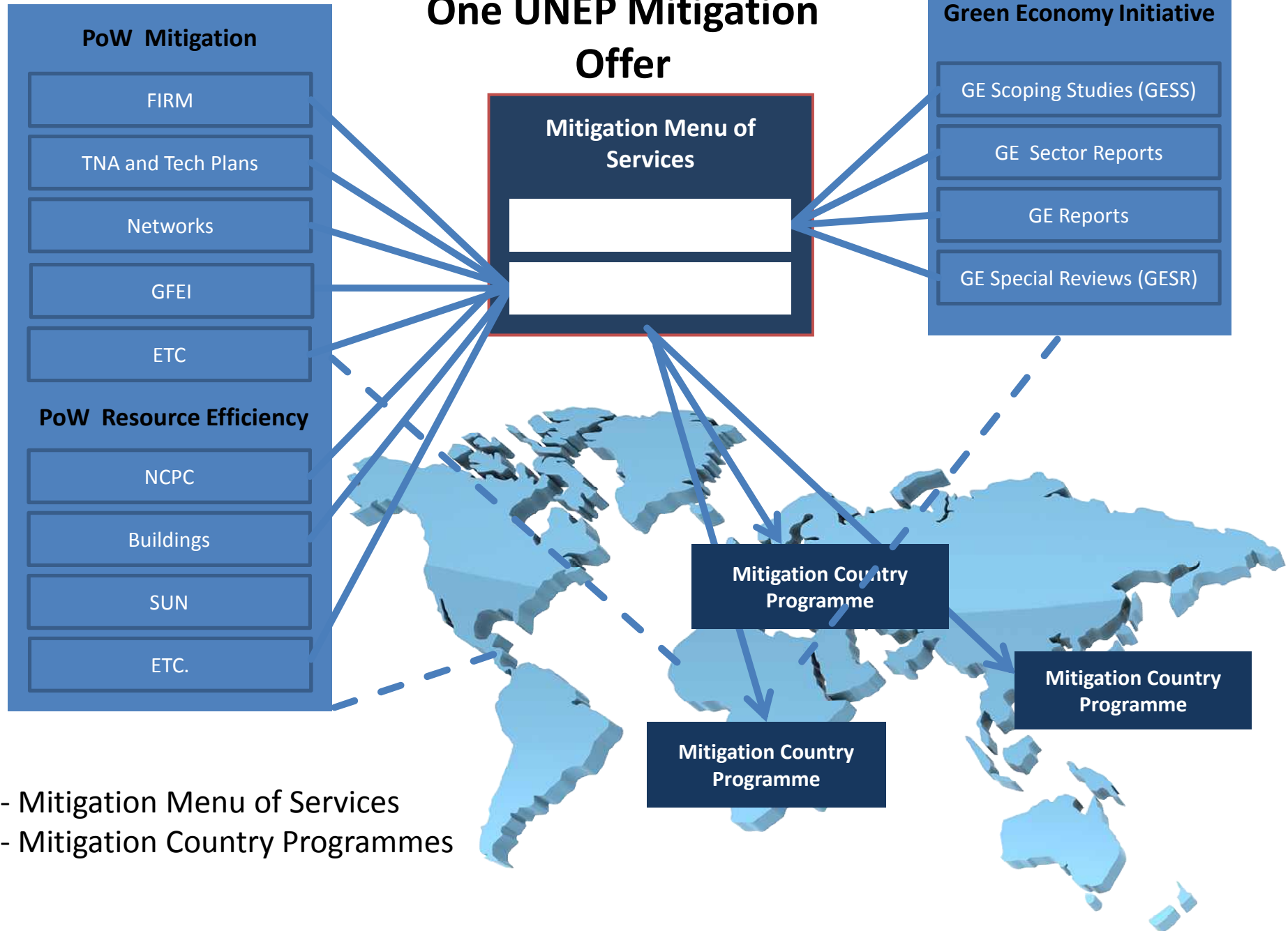




# Business as usual...still... but working on it



# One UNEP Mitigation Offer



- Mitigation Menu of Services
- Mitigation Country Programmes



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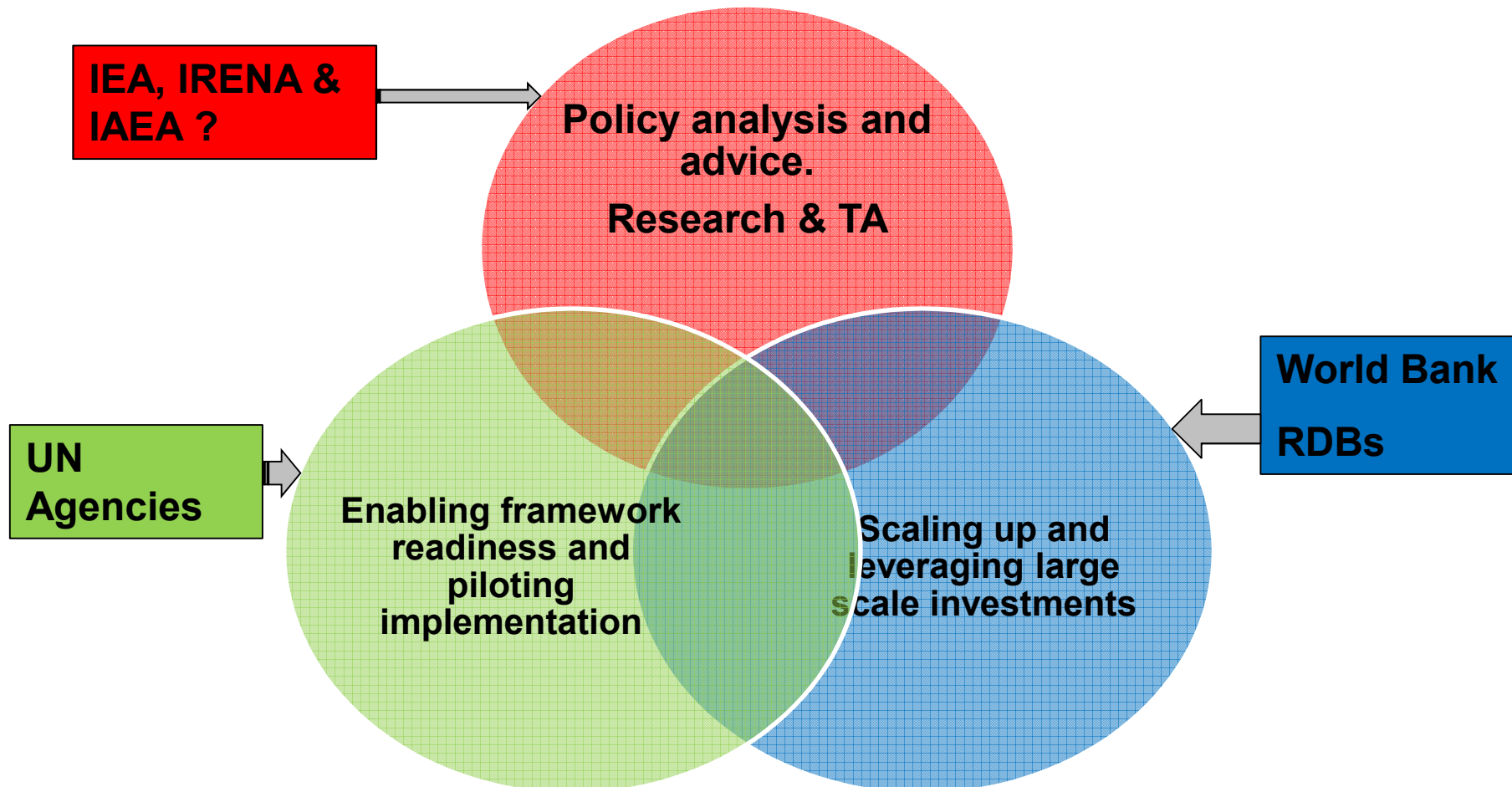
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**It's all good but does it add up to anything?**

**International level**



# Fitting together the pieces to support green energy action



The background of the slide features three black silhouettes of people in dynamic, expressive poses against a solid blue background. The figures are arranged in a way that suggests movement and energy, with one figure in the foreground and two others behind it, creating a sense of depth and action.

**More funds are becoming  
available to support  
green growth, BUT  
Proliferation of funding  
structures and associated  
procedures is a challenge  
for esp. smaller countries**

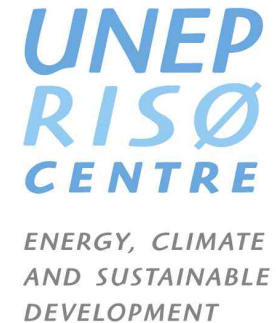
# A growing menu of climate finance instruments to catalyze and leverage





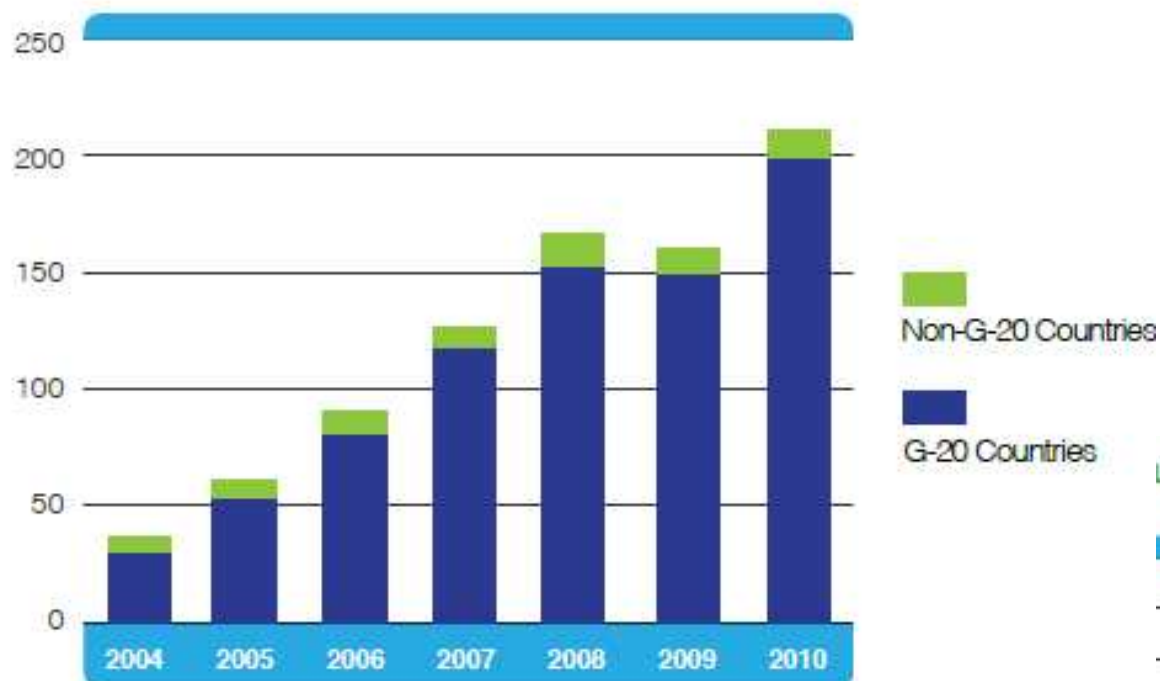


## Concluding reflections



- Strong engagement by international organizations in greening energy
- Major shifts towards RE & EE in portfolios of almost all organizations
- Overlap and duplication is a concern but both formal and informal coordination is trying to address this
- Investments in RE and EE increasing rapidly in many countries led by the G 20 countries but others are making progress too
- Core functions on policy analysis and advice, enabling environments and finance facilitation and leveraging still highly relevant to expand green energy options both in already active countries and to engage others in green growth

FIGURE 1: GLOBAL AND G-20 CLEAN ENERGY INVESTMENT, 2004-10 (BILLIONS OF \$)



\* Does not include research and development investments

GLOBAL CLEAN ENERGY INVESTMENT 2004-10 (BILLIONS OF \$)

