GEF-Supported Climate Change Initiatives

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The Global Environment Facility

The Global Environment Facility (GEF) was established in 1991 to forge international cooperation and finance actions to address critical threats to the global environment.

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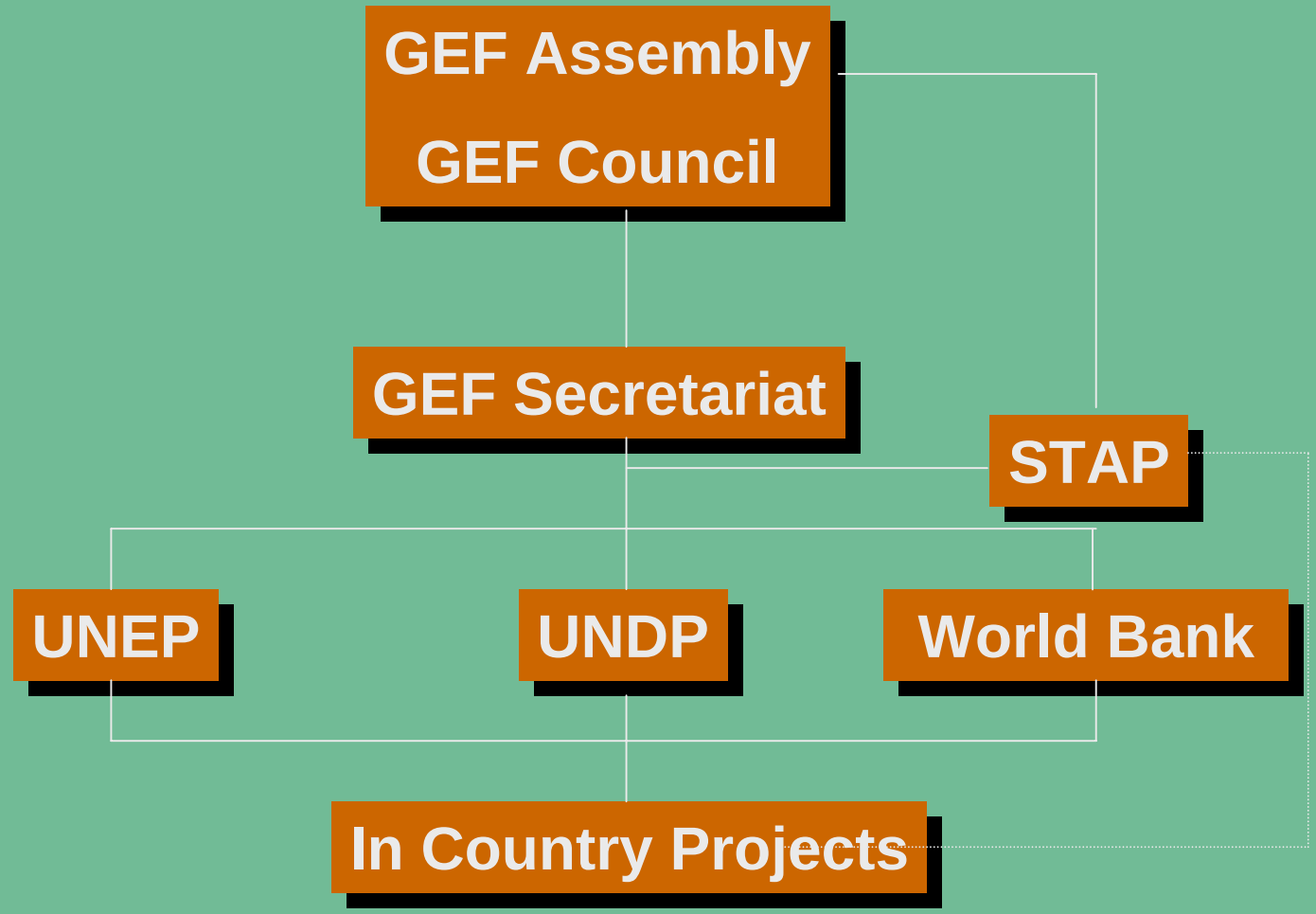
The GEF and the Global Environmental Conventions

- The GEF is the designated "financial mechanism" for the:
  - Convention on Biological Diversity (CBD)
  - Convention on Climate Change (UNFCCC)
- The GEF collaborates closely with other treaties and agreements to reach common goals (International Waters, POPs, CCD, Montreal Protocol)
- Convention Guidance is received from Conference of Parties, consisting of world wide representation

GEF Operational Framework



Global Environment Facility: Timeline

- GEF Pilot Phase
  - 1991 - 1994
  - $1 Billion US Dollars
- Replenishment:
  - 1995 - 1998
  - $2.2 Billion US Dollars
  - 1999 - 2001
  - $2.8 Billion US Dollars
  - $3.1Billion US Dollars for 2002-2005
- Projects funded on competive ,technical basis : No a priory allocation to an agency– agencies earn fees.

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Focal Areas of the GEF

CLIMATE CHANGE is one of the major GEF Focal Areas

Other GEF Focal Areas are:

- Biodiversity Conservation
- International Waters
- Ozone Depletion (only countries in transition)
- Land Degradation & Sustainable Land Management
- Persistent Organic Pollutants (POPs)

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UN Framework Convention on Climate Change

- Requires developing country states (non-Annex I Countries) to prepare National Reports on their: (1st Nat Com, SNCs)
  - greenhouse gas emissions
  - national climate policies
  - vulnerability to climate change
- Financial Mechanism - GEF is the financial mechanism of the Convention and provides funding for preparation of these reports.
- The Convention is also the source of guidance for GEF funding of climate change projects viz: Mitigation, Adaptation *(Bulk of GEF resources are here)*

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UNFCCC and Kyoto Protocol

Protocol (1997) sets greenhouse gas (GHG) emission reduction targets for industrialized countries and defines flexible instruments, emission credit trading, joint implementation, and the Clean Development Mechanism (CDM)

Determining Eligibility:

Beginning with an Idea

Which Focal area ?

3. The Global Significance Test

- Does your project concept deal with global significance : reduction of greenhouse gas emissions?

e.g : via energy use in industry, or transport or appliances or HH goods

OR

energy substitution or methane capture & utilisation etc etc

4. The National Priority Test

- Does your project concept reflect national environmental priorities and commitments?
  - GEF focal point endorsement is a requirement.

6. The Project Overlap Test

- Is your project concept unique? Has a similar initiative already been funded by the GEF in your country?
  - First learn about existing or planned GEF projects in your country.

Project Rationale and Objectives: Step back. Think holistically.

- Keep in mind that GEF will need to understand and describe the WHOLE problem.
- What do you already know about the problem you wish to solve?

GEF is a Co-financier

- GEF encourages partnerships by bringing together multiple sources of funding for projects
- Key Concept: the GEF is not a project financier, but a project Co-financier providing "new and additional" funds to address global environmental issues

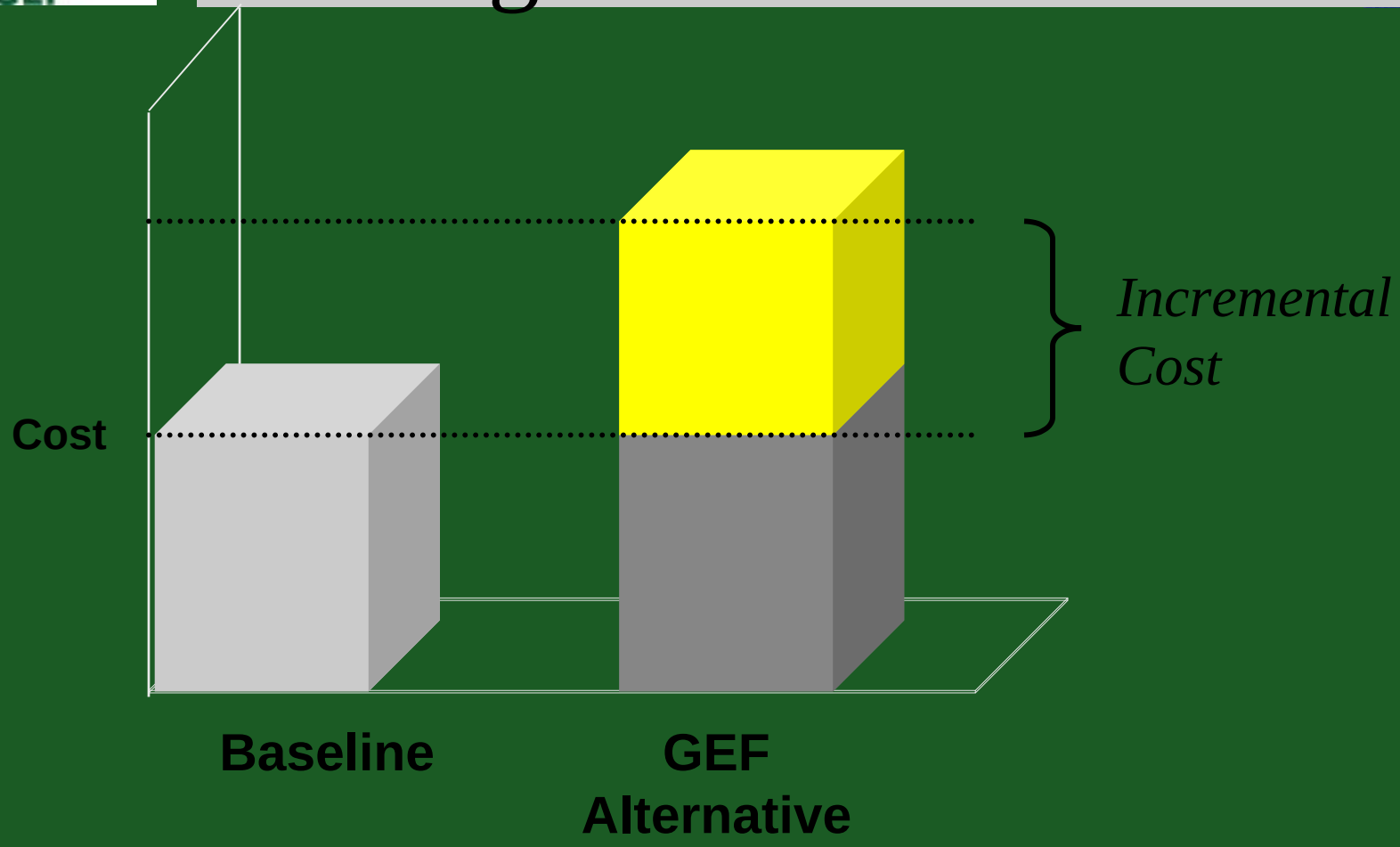
Assessing the Existing Situation

- What are local communities, local authorities, the national government, NGOs, private sector, and other donors already doing in the proposed project area?
  - This is the Baseline -- the “business as usual” scenario

Outcomes and Activities

- How can the root causes of the problem be eliminated and the threats diminished or the barriers removed? What would need to be done?
  - This is the Alternative -- the set of outcomes/outputs and activities that are the alternative to the Baseline.

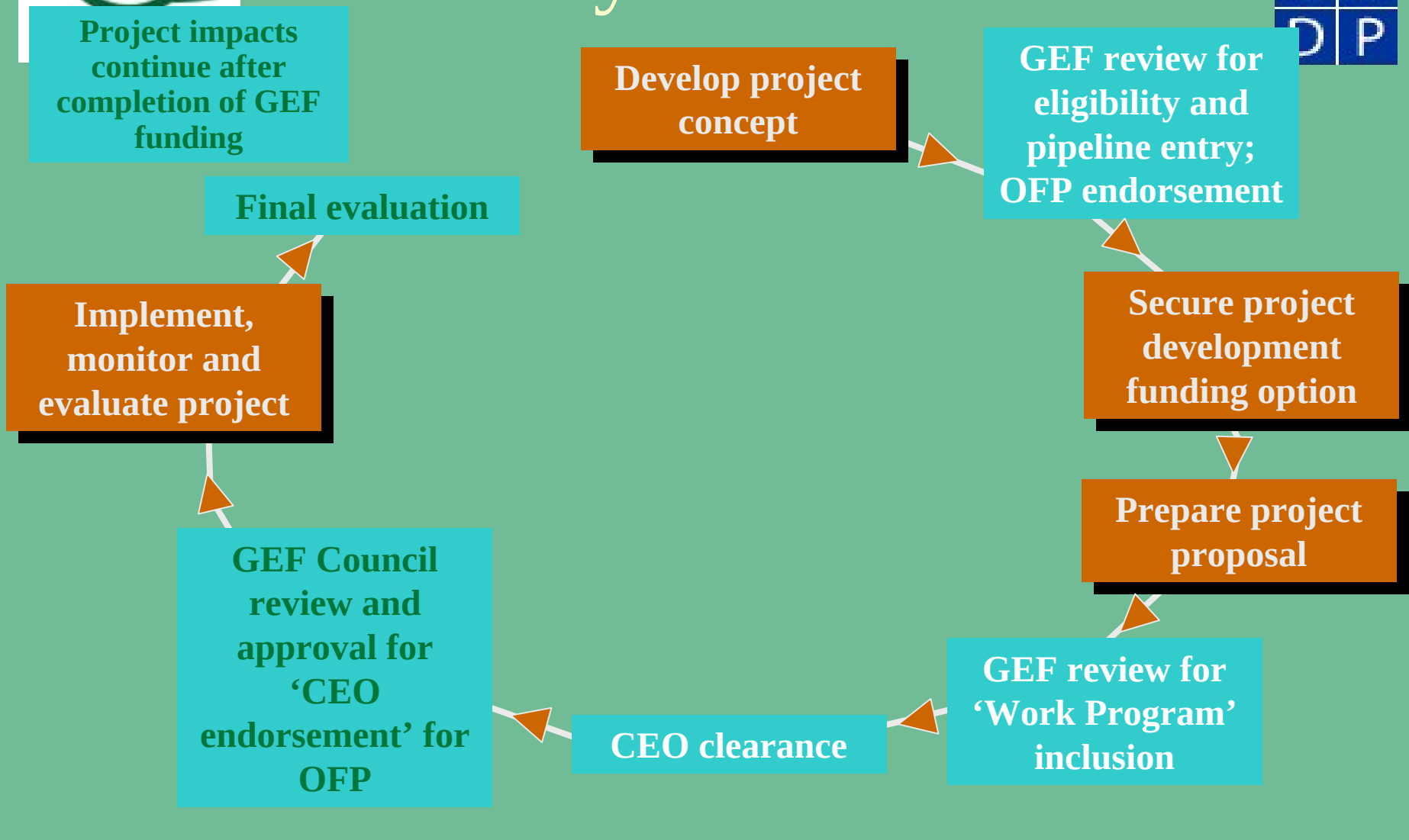
Baseline and alternative funding



Development of a Good Concept Paper: A Checklist

- Apply key eligibility criteria to project concept.
- Consult with people concerned with your project idea -- the stakeholders. Develop support and participation.
- Write the concept paper.
- Secure written endorsement of concept from Government GEF focal point.
- Submit concept paper to IA.

Basic Project Cycle



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Climate Change Emphasis

- Assess the economic scope of energy efficiency, energy conservation or renewable energy technologies to be covered by the envisioned project
- Estimate how much the project will reduce GHGs
- Identify all key barriers
- Propose measures to remove barriers, and estimate their costs, and
- Demonstrate the sustainability of "win-win" projects
- Propose approach for monitoring & evaluation

The Eligibility Tests

1. The **Convention Ratification** Test
2. The **GEF Operational Programme (OP) Fit** Test
3. The **Global Significance** Test
4. The **National Priority** Test
5. The **Co-Funding** Test
6. The **Project Overlap** Test

Concept Paper Content

- **Describe the Problem and Existing Situation**

9. Project Rationale and Objectives
10. Expected Outcomes
11. Planned Activities to Achieve Outcomes
12. Stakeholder Involvement
15. Estimated Budget

Concept Paper Content

1. Project name
2. Implementing Agency
3. Country or countries of implementation
4. Country eligibility
5. GEF focal area
6. GEF operational programme
7. Linkage to national priorities and plans
8. GEF focal point review/endorsement
13. Information on project proponent
14. Information on executing agency if different

GEF funding pathways

Funding Pathway	Funding level	~ Time required	Prep. funding
Full Project	$1 US million and up	6-24 months	up to $US 350,000
Medium Project	$US 50,000 – 1 million	6-12 months	up to $US 25,000
Small Grant	up to $US 50,000	3-6 months	up to $US $2000

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Climate Change Operations Programmes

- OP-5: Removing barriers to energy conservation and energy efficiency
- OP-6: Promoting the adoption of renewable energy by removing barriers and reducing implementation costs
- OP-7: Reducing the long-term costs of low greenhouse gas emitting energy technologies
- OP-11: Promoting environmentally sustainable transport

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Barrier Removal Projects

Generic Barriers to EC&EE and RE

- Policy Barriers
- Institutional Barriers
- Technical Barriers
- Market Barriers
- Economic and Financial Barriers
- Information Barriers

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Barrier Removal Projects

- Barrier-removal measures require a different mix of the following standard GEF modalities:

♦ Targeted research (e.g., adaptation to local conditions);
♦ Capacity building (e.g., financial evaluation or market instrument,microfinancing);
♦ Institutional strengthening (e.g., regulatory framework);
♦ Investments (e.g., demonstration projects); and
♦ Training (e.g., to operate, maintain demonstration sites).

A project is usually packaged as a combination of several of the above components.

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OPERATIONAL PROGRAMME No. 5: *Removing Barriers to Energy Conservation and Energy Efficiency*

Objective: The reduction of the risk of climate change through the reduction of net GHG emissions

Approaches:

- Removal of barriers to large-scale application, implementation, and dissemination of least-economic cost energy-efficient technologies
- Promotion of more efficient energy use

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GEF Operational Programme No. 5

Scope of "Win-Win" Opportunities

- Electricity production and distribution (load analysis, better maintenance and instrumentation, boiler and turbine improvements, demand side management)
- Industrial energy consumption (efficient drives, motors, and improved systems configurations)
- Manufacturing processes in energy-intensive industries (e.g., basic materials processing)
- Effective use of energy intensive materials
- Combined heat and power technologies

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GEF Operational Programme No. 5

Scope of "Win-Win" Opportunities

- Manufacture of more energy-efficient equipment (refrigerators, industrial motors, and lighting systems)
- Market transformation
- Energy for rural and agro-processing industries
- Passive heating and cooling (building regulations and designs)
- Commercial buildings (more efficient lighting and space conditioning)

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GEF Operational Programme No. 5

Examples of Measures to Address Barriers

Generic Barrier	E.g of Measures to Remove Barriers
Lack of information	Information centers and services, Appliance labeling, consumer information
Lack of trained personnel or technical or managerial expertise	Training programs (e.g., integrated resource planning; analyzing non-traditional projects)
Below long-run marginal-cost pricing and other price distortions	Instituting supportive legal, regulatory and policy changes
Regulatory biases or absence	Standards
High transaction costs	Market development and commercialization, Demand-side management programs, Energy service companies
High initial capital costs or Lack of access to credit	Innovative financing mechanisms
High user discount rates	Energy service companies
Mismatch of the incidence of investment costs and energy savings	Institutional matching of costs and benefits; Energy service companies

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OPERATIONAL PROGRAMME No. 6: *Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs*

Objectives

- Removal of the barriers to the use of commercial or near-commercial renewable energy technologies (RETs)
- Reduction of any additional implementation costs for RETs through economically profitable "win-win" transactions and activities

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GEF Operational Programme No. 6

Scope of "Win-Win" Opportunities

- Off-grid stand-alone PV solar home systems (30 – 100 W)
- Mini-grid village-scale power applications (1 – 100 kW)
- Small-scale wind turbines
- Biomass gasifiers
- Micro hydropower systems
- Hybrid PV/Wind/diesel systems integrated with battery storage
- Grid-connected large scale RE applications (1 – 800 MW)
- Large scale wind farms
- Large scale biomass power generation and CHP

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GEF Operational Programme No. 6

Scope of "Win-Win" Opportunities

- Geothermal power
- Methane from urban and industrial waste
- RE for heating applications
- District heating from biomass and geothermal energy
- Active and passive solar heating and solar hot water systems
- RE for productive use in rural areas
- Wind pumps for mechanical water pumping and water supply
- Biogas digesters for lighting and water pumping

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Examples of Measures to Address Barriers

- Improve legal, regulatory and policy framework to provide financial incentives for RE and attract private sector investment in RE
- Improve utility regulation, particularly regarding the price and quantity of utility power purchase from RE power producers
- Set up local community organizations to promote RE locally
- Promote RE delivery mechanisms, e.g., dealer sales model
- Develop standards and codes, as well as testing and certification capacity for RE equipment

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GEF Operational Programme No. 6

Examples of Measures to Address Barriers

- Provide technology transfer to local manufacturers
- Training programs on RE
- Evaluate market demand and develop market strategies
- Develop innovative financing mechanisms
- Conduct resource assessment
- Establish information centers and services
- Awareness campaigns

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OPERATIONAL PROGRAMME No. 7:
Reducing the Long-term Cost of Low GHG-emitting Energy Technologies

- **Objective:** Reduction of GHG emissions from anthropogenic sources
- **Approaches:**
  - Increasing the market share of low GHG-emitting technologies that have not yet become widespread least-cost alternatives
  - Promotion of such technologies so that, through learning and economies of scale, the levelized energy costs will decline to market competitive levels.

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GEF Operational Programme No. 7

Scope of "Win-Win" Opportunities

- photovoltaics for grid-connected bulk power and distributed power (grid reinforcement and loss reduction) applications
- advanced biomass power through biomass gasification and gas turbines
- advanced biomass feedstock to liquid fuels conversion processes
- solar thermal-electric technologies in high insolation regions, initially emphasizing the proven parabolic trough variant for electric power generation

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OPERATIONAL PROGRAMME No. 11:
Promoting Environmentally Sustainable Transport

- **Objective:** Reduction of GHG emissions from the transport sector, and specifically from ground transport sources
- **Approaches:**
  - Facilitation of adoption of sustainable low-GHG transport measures, and disengagement from unsustainable measures common in many parts of the world.
  - Improve the commercial viability of the application of sustainable measures for mitigating climate change.

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GEF Operational Programme No. 11

Scope of "Win-Win" Opportunities

- Modal shifts to more efficient and less polluting forms of public and freight transport through measures such as traffic management and avoidance and increased use of cleaner fuels
- Non-motorized transport
- Fuel-cell or battery operated 2- and 3-wheelers designed to carry more than one person
- Hydrogen-powered fuel cell or battery-operated vehicles for public transport and goods delivery
- Internal combustion engine-electric hybrid buses
- Advanced technologies for converting biomass feedstock to liquid fuels

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GEF Strategic Priorities in Climate Change Focal Area (2003 – 2006)

SP1 Transformation of markets for high volume, commercial, low GHG products/processes

SP2 Increased access to local sources of financing for energy efficiency and renewable energy

SP3 Power sector policy frameworks supportive of energy efficiency and renewable energy

SP4 Productive uses of renewable energy

SP5 Global market aggregation and national innovation for emerging technologies

SP6 Modal shifts in urban transport and clean vehicle technologies

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Climate Change Strategic Priorities

S1: Transformation of markets for High Volume, Commercial, Low GHG Products/Processes

Energy-efficient product standards and codes, utility DSM programs, voluntary agreements with the private sector, competitively allocated and limited subsidies, and low-cost loans and performance guarantees.

S2: Increased Access to Local Sources of Financing for Energy Efficiency & Renewable Energy

Supporting financial intermediaries like NGOs, microcredit lenders, savings groups, or Energy Service Companies, and providing risk-sharing instruments to financial players

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Climate Change Strategic Priorities

S3: Power Sector Policy Frameworks Supportive of Renewable Energy and Energy Efficiency

Clean energy into power sector policy frameworks.

Regulatory frameworks supportive of grid-connected renewable energy and utility DSM programs.

S4: Productive Uses of Renewable Energy

Applications of renewable energy that provide income generation and other essential social services.

Pilot new financing and delivery models for sustainable and replicable productive-use applications

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Climate Change Strategic Priorities

S5: Global Market Aggregation and National Innovation for Emerging Technologies

Building market development alliances, more attention to future markets, policy and political issues, institutional circumstances, and the need to match global benefits, local benefits and project opportunity cost

S6: Modal Shifts in Urban Transport and Clean Vehicle Technologies

Strategic long-term approach to urban mobility and integrated land use planning and management activities that lead to cost-effective and sustainable transport systems.

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Climate Change Strategic Priorities

S7: Adaptation to Climate Change

- NAPA for LDCs
- LDC Fund : $ 50.0 million for GEF disbursements of which $5.0 already disbursed to SGP.
- Other Adaptation Initiatives can still be packaged under OP12.

OP 15 : Land Degradation & Sustainable Land Management

Useful websites

Strategic Business Planning: Directions and targets (May Council 03)
http://www.gefweb.org/Documents/Council_Documents/GEF_C21/C21.Inf.11-_Strategic_Business_Planning.pdf

- **http://www.gefweb.org/Documents/Council_Documents/GEF_C21/C.21.9_GEF_Business_Plan_FY04-06.pdf**
- **UNDP/GEF & Others**
- http://intra.undp.org/gef
- www.undp.org/gef
- http://intra.undp.org/bdp/workspaces/energyenvironment/
- www.unmillenniumproject.org
- www.scidev.net/index.cfm
- http://roo.undp.org/gef/ncsa
- http://www.unfccc.org
- http://www.pewclimate.org

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- http://www.iisd.org
- http://www.iisd.ca/linkages
- http://roo.undp.org/gef/solarpv

http://www.uccee.org

Thank You!