



Investment Framework For Green Growth: Recent Experience from Middle- Income Countries

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Overview of DAF/INV Work on Green Investment

- Investment policy reviews: Policy Framework for Investment; chapters on infrastructure
- Green chapters and analysis of environmental issues
- Corporate Greenhouse Gas Emission Reporting
- Investment in water and sanitation: *Checklist for Public Action in Water*
 - country assessments + report on lessons learned
- Forthcoming *Policy Guidance for Investment in Clean Energy Infrastructure*



Structure of Presentation

1. Investment opportunities in green sectors
2. Benefits of green investment
3. Barriers to green investment
4. Measures to overcome barriers to green investment
5. Summary of lessons learned and the way forward

*examples from developing countries

*focus on clean energy



1. Opportunities for Green Investment

- **Significant, unexplored natural resources for RE generation**
 - Hydro: Only 7% of Africa's hydropower potential has been exploited
- **Rising population, increasing urbanisation**
 - Calls for low-carbon public transportation; solar heating; green buildings; sustainable townships; demand-side management
- **Energy shortfalls due to aging infrastructure and growing demand**
 - existing power stations will be retired
 - power consumption is growing rapidly in developing countries



1. Opportunities for Green Investment

Low access rates to electricity; insufficient infrastructure

- Mainly a problem in SSA and South Asia
- Presents an opportunity to leapfrog to cleaner generation sources

Country	Population without electricity (million)	without access	Share of population (%)
DR Congo	59 million		89%
Tanzania	38 million		86%
Ethiopia	69 million		83%
Kenya	33 million		84%
Myanmar	44 million		87%
Bangladesh	96 million		59%
Pakistan	64 million		38%

Source: IEA World Energy Outlook 2011



2. Barriers to Investment

- High upfront costs especially for exploration to determine resources and feasibility
- Long gestation period for some projects: several years before construction begins – no returns during this period
- High level of risk: technological and commercial risks in particular e.g. for geothermal
- Heavy reliance on fossil fuel-based generation (e.g. 98% in Jordan)
 - also, fossil fuel subsidies – harder for renewables to compete
- Foreign equity restrictions: the electricity sector is quite closed to foreign investment



3. Overcoming barriers to investment

i) Public sector support

Malaysia:

- Green financing schemes: in co-operation with commercial banks and private financiers
- Facilitation funds to cover the viability gap – also in India



3. Overcoming Barriers to Investment

ii) Green Investment Incentives: Malaysia

Type of Incentive	Beneficiary
Pioneer status and tax allowance for 100% of statutory income for 10 years; projects must be implemented within a year of receiving the incentive	Energy companies implementing energy conservation projects
100% tax allowance on capital expenditure within first 5 years of project	Companies generating renewable energy for their own consumption
Tax exemption on 100% of additional capital expenditure for green buildings	For green buildings
Import duty and sales tax exemptions on solar PV and solar heating equipment	Solar PV system equipment
Sales tax exemption on energy efficient products	Full exemption for locally manufactured energy efficient goods; partial exemption for imported equipment
100% Import duty exemptions and 50% excise duty exemption	Hybrid and electric cars and motorbikes
Exemptions on income tax from sales of CERs	CDM projects



3. Overcoming barriers to investment

iii) Feed-in tariffs:

- over 50 countries: Kenya, Uganda, Malaysia
- guaranteed access to the grid; long-term contracts; size caps on projects;
- e.g. Kenya pretty comprehensive: wind, biogas, biomass, geothermal, solar (PV and CSP), small hydro
- The experience of some European countries (Spain, Italy) cast doubt about the effectiveness of FiTs



3. Overcoming barriers to investment

iv) Development partners can play an important role

- Joint DAC-Investment Committee report on Aid for Investment; mapped donors' support for private investment in infrastructure:
 - blending grants: makes high-risk, commercially unviable projects more attractive to investors
 - risk mitigation: multilateral donors allays the risk of new technologies e.g. Geothermal Risk Mitigation Facility
 - export credits for green products from home countries
 - investment funds: equity participation in green projects in developing countries



4. Summary and Conclusion

- The opportunities for green investment are there and the time is ripe to explore them
- High level of risk and high project costs are significant barriers to investment;
- Initiatives in countries around the world show that these barriers can be overcome
- Governments (with development partners) must play the leading role – private investment follows from there



Thank you!

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