NAMA Financial Mechanisms

Issues to be Considered

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Center for Clean Air Policy
Objectives of NAMA Financial Mechanisms

• Expand availability of commercial financing of clean energy projects

• Use NAMA funds to attract private sector financing for climate change projects

• Use NAMA funds to mitigate project risks that are difficult to cover by the private sector

• Use or blend NAMA funds with private sector funds to make projects affordable
NAMA Financial Mechanism Design Criteria

• **Sustainability** – NAMA’s should be used in a revolving manner. Use donor resources wisely.

• **Leveraging capabilities** - Capacity to bring in private sector financing for every dollar of donor funding. Mobilize as much private financing as possible with limited donor resources.

• **Affordability** - Financing climate change projects exclusively with private sector financing is not affordable in most countries. NAMA funds should leverage private sector financing on affordable terms to project sponsors and developers.
Financial Impediments

• Lack of knowledge of renewable energy (RE) and energy efficiency (EE) technology by local banks
• High perceived credit risk of developers
• Local bank preference for balance sheet financing while energy projects are usually financed based on revenue flow - project financing mechanisms
• Currency risk
• High transaction costs for smaller-scale projects
• Affordability – high interest rates in many countries can not be covered by project revenues
Partial Credit Risk Coverage

• Provides partial guarantees to local banks, up to 50%, for lending to climate change projects
• Designed to stimulate local financing of eligible projects
• Has been used with mixed results by the Global Environment Facility (GEF)
• Shown to have limited leveraging capacity
• Limited application in high interest rate environments
Partial Credit Guarantee

- GEF/NAMA $10 million Grant
- Guarantee Reserve Account held by Trustee
- Guarantee 50% of Loan
- Local Financial Institution
- Loan
- Repayment
- RE or EE Project

Issues

- Leverage
- Eligible Projects
- Interest earned on reserve account
Performance Guarantees

• Proposed for energy efficiency projects
• Provides lenders a guarantee of projected savings in an Energy Services Company (ESCO) contract
• Would make payment equal to the difference between guaranteed and actual energy savings from a project
• Takes performance risk off the table for lenders with limited understanding of the ESCO business
• Has higher leveraging capacity
Two Primary ESCO Business Model

Guaranteed Savings
• Preferred by ESCOs
• Works best with start-up ESCO industry

Shared Savings
• Preferred by customer
• Off balance sheet to ESCO customer
Guaranteed Savings

CUSTOMER Borrower

Savings Guarantee

ESCO

Fixed Repayment

Lender
Shared Savings

- Customer
- ESCO
  - Borrower
  - Performance & Credit Risk
- Lender Funding
Two Elements of all RE and EE Project Risks

- **Credit risk** – capacity of ESCO or RE client – hotel, industry, utility to repay loan. Evaluation of this risk is core business of commercial banks. **Credit Guarantee**

- **Project risk** – capacity of project to achieve level of energy production or guaranteed energy savings. Evaluation of this risk is beyond the core capacity of commercial banks. **Performance Guarantee**
Flow of Funds and Contractual Agreements
100% Performance Risk Guarantee Program

GEF / NAMA Grant

GUARANTEE TRUST FUND
Private Sector Administrator

100% Performance Guaranty Contract

ESCO

TRUST ACCOUNT

C

C

C

BANK

BANK LOAN CONTRACT / TRUST AGREEMENT

SAVINGS PAYMENT

EXCESS CASH AFTER DEBT SERVICE

Contractual Structure

Flow of Funds
Creation of Special Funds to Finance Eligible Projects When Banks Will Not Lend

• Where commercial bank financing is not available. NAMA resources capitalize special funds with specific project eligibility criteria

• Competitive bidding for private sector management of the fund

• Repayments to the Fund from loans revolve and are used to finance future projects
Creation of Special Purpose Entities

• Can be used to bundle small-scale projects for financing from the private sector

• Can be public or private entities

• Can address management and capacity constraints in project risk assessment

• Management of SPE have special financial and project skills unique to target sector
Simplified Flow of Funds for SPE Pooled Financing

Gov’t Grant/or NAMA Grant

Reserve Account $33m

Gov’t SPE Pooled Financing Authority

Local Gov’t Project

Local Gov’t Project

Local Gov’t Project

Local Gov’t Project

Investors

Bonds

$100m

Principal & Interest Payments

If Necessary

Trustee

$100 Million
### Profile of Pooled Financing of Local Environmental Projects in New York State

<table>
<thead>
<tr>
<th>Offering</th>
<th>Number of Borrowers</th>
<th>Bond Amount (US$ in Millions)</th>
<th>Average Project Size</th>
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<tbody>
<tr>
<td>2010</td>
<td>29</td>
<td>$80.3</td>
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<td>2009</td>
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<td>2008</td>
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<td>2006</td>
<td>15</td>
<td>$75.5</td>
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</table>
CAINTRA – FINANCE STRUCTURE

$20 million
Credit Enhancements
NAFIN – Partial Guarantee
NAMA Grant

Debt 70%
NADBANK
50% = $7 million

Other Debt Financing
50% = $7 million
OPIC, NAFIN
NAMA Loan

Equity 30%

SPE
Managed by Private Sector Administrator

CAINTRA Member Company
CAINTRA Member Company
CAINTRA Member Company

$6 million Equity investors
Extension of Lending Maturities

• Provides longer-term financing for eligible projects than available from local banks
• Can substantially lower annual debt service payments for projects
• Has great leveraging capacity
• Relies on local lending institutions to make credit risk assessment
## Comparative Debt Service Table on a $100 Million Loan

<table>
<thead>
<tr>
<th>Term</th>
<th>Interest</th>
<th>Annual Payment</th>
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<tbody>
<tr>
<td>7 yrs</td>
<td>13%</td>
<td>$21.8 M</td>
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<tr>
<td>7 yrs</td>
<td>With Credit Enhancement 8%</td>
<td>$18.7 M</td>
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<tr>
<td>7 yrs</td>
<td>With Credit Enhancement 6%</td>
<td>$17.5 M</td>
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<td>15 yrs</td>
<td>13%</td>
<td>$15.2 M</td>
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<tr>
<td>15 yrs</td>
<td>With Credit Enhancement 8%</td>
<td>$11.5 M</td>
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<tr>
<td>15 yrs</td>
<td>With Credit Enhancement 6%</td>
<td>$10.1 M</td>
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</table>
Development Bank Co-financial with Local Banks at Below Market Rates

• Provide zero or low-interest loans to projects as a co-financing partner with local banks
• Relies on local banks to make credit risk assessment
• Can substantially lower annual debt service payments of projects
• Repayment of loan principal is used to finance new loans/revolving fund
Co-financing PWRF Structure

Stand-by credit line
For Bank loan
Refinancing rollover every 7 years

JBIC/DBP Loan
50% loan
4.5%
20 year tenor

Local Private Bank Loans
50% loan volume
12.5% floating
7 year tenor

Blended interest rate 8.5%
Tenor 20 years

Creditworthy RE projects

Creditworthy RE projects

Creditworthy RE projects
### 3 Billion Peso Loan Program

#### Comparative Annual Amortization of Debt Calculations

<table>
<thead>
<tr>
<th>YEARS</th>
<th>Y</th>
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<th>A</th>
<th>R</th>
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<td>428</td>
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<td>JBIC 50%</td>
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<td>75</td>
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<td>TOTAL</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
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</tr>
</tbody>
</table>
Mobilization of Pension Funds

• Provides financing on longer terms and at lower interest rates than local banks
• Removes currency risk
• NAMA funds could be used for co-financing projects to address risk sharing requirement of pension funds
• Must be designed to address constraints in pension fund project risk assessment capabilities
• Pension funds are generally more conservative than local banks
Kenya Pension Fund Framework

World Bank
Identify and Prepare Projects for Financing

JICA
4% years
20

SPE
Master Trust

Local Gov’t Projects
Local Gov’t Projects

Contractor
Contractor

USAID
DCA Guarantee

Pension Fund
6.5% 20 years

AfDB
8% 20 years
# Financial Mechanisms To Address Impediments

<table>
<thead>
<tr>
<th>Risks/Barriers</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived credit quality of borrowers or entering a new sector</td>
<td>Partial Credit Risk Guarantee – but not helpful in high interest rate environments</td>
</tr>
<tr>
<td>High transaction costs of smaller-scale projects</td>
<td>Creation of Special Purpose Entity (SPE) for project implementation</td>
</tr>
<tr>
<td>Lack of familiarity with technology</td>
<td>Performance Guarantee</td>
</tr>
<tr>
<td>High interest rate environments and/or lack of project revenues to cover market- terms of financing</td>
<td>Extension of lending maturities Soft loans Co-financing with local banks</td>
</tr>
<tr>
<td>Lack of capacity in local banks</td>
<td>Special Funds</td>
</tr>
</tbody>
</table>
How to Design NAMA Financial Mechanisms

Financial Market Assessment

• Work with financial specialist to assess local financial conditions
• Bank lending terms – interest rates, maturities, collateral
• National Development Bank lending – eligible sectors and terms
• Bond market – is it available
• Borrowing capacity of project sponsors
• Credit rating capacity and credit ratings
How to Design of NAMA Financial Mechanisms

Identify Impediments and Design Solution

• Discuss financing issues with project developers, bankers and government officials – focus on specific projects and specific impediments

• Consider the best way to use NAMA funds to address financial impediments – low costs financing, guarantees, SPE or special funds

• Discuss NAMA financial mechanisms with potential lenders/investors – use term sheets of specific projects

• Requires continuous dialogue among lenders, borrowers/donors, and government representatives
How to Design NAMA Financial Mechanisms

Implementation Issues

• Consider local conditions
• Consider donor requirements
• Designed to work effectively with NAMA policy actions
• Consider time and expenses of setting up NAMA financial mechanism
• Consider administrative costs and responsibilities
• Who will manage the mechanism/program?
• How will administrative costs be covered?
• What is the exit strategy for the program?
NAMA Perspective Innovative

- Careful Financial Analyses
- Identification of Real Barriers
- Design of Appropriate Tools
NAMA Financial Mechanism Design Criteria

• **Acceptable to private lenders** – A financial structure that does not require lenders to compromise on lending criteria or terms.

• **Acceptable to national and local governments** – Provides private sector financing at the lowest possible costs to local NAMA program beneficiaries.

• **Acceptable to borrowers** – Financial program will be utilized by project developers/borrowers

• **Unique to local conditions** - Designed to work effectively within policy and financial framework of the host country.
Conclusions

• NAMA financing mechanisms are currently undefined and therefore can be very flexible
• NAMA mechanisms must nevertheless be consistent with donor requirements and conditions
• Limited donor assistance requires that NAMAs leverage private sector financing and are sustainable
• Examples of GEF and other innovative financial programs can be very helpful but each NAMA has to reflect and respond to local financial and policy frameworks
• NAMA mechanisms must be designed through extensive consultations among donors, lenders, borrowers and local governments
California Residential Reservations Since Introduction of SolarCity’s Lease Option