Taiwan’s Prospective on Climate Finance

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A. Climate Disasters in SIDS
Climate Disasters in SIDS

57 small island developing states (SIDS)

12 countries of SIDS have diplomatic relations with Taiwan
Climate Disasters in SIDS

Annual Impacts of Natural Disasters in SIDS Compared to Other Country Groupings

- Number of People Affected (Million)
- % of Population Affected
- Annual Damage (USD Million)
- Annual Damage (% of GDP)

45% Population Affected
18% Annual Damage of GDP

Source: OECD and IBRD’s report “Climate and Disaster Resilience Financing in Small Island Developing States” 2016
Challenges in Accessing Effective Financing

- Institutional and policy challenges
- Reliance on a limited number of donors and fragmentation of financing
- The cycle of limited capacities and low use of country systems
- Resilience funding tends to follow large disasters and is likely to fall short of needs.
- Complex requirements and processes for accessing and managing resources from global climate funds.

Access the funds bilaterally or multilaterally will cause a fiscal burden to the governments.

Source: IMF, World Economic Outlook 2015
B. Green Finance in Taiwan
Taiwan’s strategy to establish Green Finance

**Policy**
- Draw a national roadmap for responding to climate change.
  - ✓ 2015: Greenhouse Gas Reduction and Management Act

**Green Finance**
- Develop green and climate finance to facilitate related investments.
  - ✓ 2016: Greenhouse Gas Management Fund

**International Participation**
- Learning by doing.
  - ✓ GCF: Talk over participation in Private Sector Facility (PSF) with the Head of PSF Ms. Jiwoo Choi.
  - ✓ EBRD: Talk over cooperation with Efficiency and Climate Chance department (E2C2)
Action plans for Green Finance in Taiwan

- Assist the green energy industry to obtain financing, and encourage banks to sign the Equator Principles.
- Encourage the insurance industry to invest in green energy industries and green financial products.
- Develop green bonds.
- Continually update teachers with green energy industry or green finance experience.
- Handle relevant courses or seminars.
- Promote the development of green financial products or services.
- Develop green insurances, green credit cards, green funds, and so on.
- Expose Green financial results.
- Cross-ministry information link.
- Promote the concept of green and sustainable development, green energy development, green finance and so on.

Expected benefits
- Assist green energy industry and energy transformation.
- Expand the scale of Taiwan's green finance market.
Greenhouse Gas Management Fund

Sources:
- Donations
- Penalties
- Government budget
- Transaction fee
- Revenue from sales and auction
- Others

Distribution:
- GHG Reduction Implementation Program
- Performance Standards
- Offset Project
- Cap & Trade
- National Climate Change Framework
- Requires relevant central government agencies to implement adaptation actions
- Encourage incentives and reward
- Boost the efficiency of resource and energy use
- Development of renewables

- 32~144 millions USD (estimated)
- The funds must be used exclusively in initiatives at national and local levels that reduce carbon emissions and adapt to climate change.
## Current status of Taiwan’s financial institutes following Equator Principles

<table>
<thead>
<tr>
<th>Status</th>
<th>Financial institute</th>
<th>Tools of green finance</th>
<th>Scale Unit: millions of USD</th>
<th>benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member of Equator Principles Association (EPA)</td>
<td>Cathay Financial Holdings</td>
<td>✓ Solar energy loans, ✓ Ecology funds, ✓ Green energy type of insurance, ✓ Invest in green industries, ✓ Green energy syndicated project loans</td>
<td>200 millions</td>
<td>207,180 ton/yr CO₂ reduced</td>
</tr>
<tr>
<td></td>
<td>E.SUN Financial Holding Co., Ltd.</td>
<td>✓ Export loans for green energy and related equipment, ✓ Solar rooftop project loans</td>
<td>270 millions</td>
<td>25,000 ton/yr CO₂ reduced</td>
</tr>
<tr>
<td>Adapt and apply Equator Principles on credit business</td>
<td>First Financial Holdings</td>
<td>✓ Green energy industry loans, ✓ Invest in green and ecofriendly industries</td>
<td>1.6 billions</td>
<td>54,460 ton/yr CO₂ reduced</td>
</tr>
<tr>
<td>Follow a apart of Equator Principles</td>
<td>Yuanta Financial Holdings</td>
<td>✓ Green credit, ✓ Purchase of green power, ✓ Invest in LED and solar energy industries</td>
<td>447 millions</td>
<td>7.68 kWh of power saved</td>
</tr>
</tbody>
</table>

Source: Taiwan Research Institute
Government can leverage **credit guarantee and preferential interest rate** to increase the investment from private sector and loans from banks.

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Financial tools</th>
<th>Authority</th>
<th>Energy saving equipment</th>
<th>Energy recovery equipment</th>
<th>Pollution prevention and control equipment</th>
<th>New transport facilities</th>
<th>Renewable energy equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Subsidy</td>
<td>• Bureau of Energy, Ministry of Economic Affairs</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loan</td>
<td>• Hsinchu City Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public–Private Cooperation</td>
<td>Concessional loan</td>
<td>• National Development Fund, Executive Yuan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preferential loan</td>
<td>• National Development Fund, Executive Yuan</td>
<td>•</td>
<td></td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>Direct credit guarantee</td>
<td>• Small and Medium Enterprise Administration, Ministry of Economic Affairs</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Source: Taiwan Research Institute
## Project loans for energy saving, carbon emission reduction and pollution prevention in Taiwan (2/2)

<table>
<thead>
<tr>
<th>Owner-ship</th>
<th>Financial tools</th>
<th>Authority</th>
<th>Energy saving equipment</th>
<th>Energy recovery equipment</th>
<th>Pollution prevention and control equipment</th>
<th>New transport facilities</th>
<th>Renewable energy equipment</th>
</tr>
</thead>
</table>
| Public-Private Cooperation | Project | [ ] New Taipei City  
[ ] Five major industrial areas | | | | | ● |
| | Project loan | [ ] Pingtung County Government | | | | | ● |
| | Preferential loan | [ ] Small & Medium Enterprise Credit Guarantee Fund of Taiwan | ● | | ● | ● |
| | Preferential loan | [ ] Small & Medium Enterprise Credit Guarantee Fund of Taiwan | | | ● | | |
| | Loan | [ ] Small & Medium Enterprise Credit Guarantee Fund of Taiwan | ● | ● | ● | ● |
| | Project loan Credit guarantee | [ ] Environmental Protection Administration, EY  
[ ] Small & Medium Enterprise Credit Guarantee Fund of Taiwan | ● | | ● | | ● |
| Private | Project loan | [ ] E.SUN COMMERCIAL BANK, LTD | | | | | ● |
| | Financing plan | [ ] First Commercial Bank | | | | | ● |
| | Project loans | [ ] Chaileasa Finance Co., Ltd | | | | | ● |

Source: Taiwan Research Institute
C. TRI’s Role in promoting Green Finance
Networking of TRI

- **NGO Observer of UNFCCC** (since 2014)
  - TRI actively participated the side events of COP, including press conference and exhibition.

- **Private Sector Observer of GCF** (since 2016)
  - TRI has participated the board meetings of GCF.

- **Network member of Climate Technology Centre & Network (CTCN)** (since 2017)
GCF’s Project Funding

As one of the finance mechanism, GCF plays an important and active role in climate finance with 54 project funding over 2.75 billion USD.

Private Sector Facility

Extra investment opportunities open to private sector

TRI’s opportunities in participating GCF (1/3)
The Functions of GCF Readiness Programme:

a) strengthening the institutional capacities of National Designated Authorities/focal points ("NDAs") and direct access entities to effectively engage with the Fund

b) assisting countries in undertaking adaptation planning and developing their long-term climate action agenda

- TRI has strengths in project planning and management which can help our SIDS friends to prepare for the Readiness.

- 130 readiness requests approved in 92 countries amounts USD 411.8 millions; 66% for LDCs, SIDS and African States
The functions of Private Sector Facility (PSF):

a) catalyzing funding for high impact, transformative and innovative climate projects and activities

b) scaling up private sector investment flows for low carbon and climate resilient development

TRI approached Ms. Jiwoo Choi, the Head of Financial Institutions and Structured Finance of PSF, to build up the bridge between financial institutions in Taiwan and the climate finance of GCF.
Promoting Green Finance in COP22

Press conference with Palau in COP 22

Topic: Taking Steps Further to Cushion Climate Change Impact

Nov. 15, 2016

Promote and develop green finance strategies in line with Paris Agreement.
Government should integrate the strategies of different climate funds and lower the risk and cost for SMEs to invest in green finance.

Establish a sustainable and revolving fund with a well-established financing mechanism.

Integrate available funding and enhance international cooperation on green finance.
Promoting Green Finance in Taiwan (2/2)

Topic: Green Finance Facilitate The Development of Energy Industries Seminar

July 25, 2017

- Develop the public-private partnership on the transformation to green energy to explore business opportunities and encourage long-term investment.
- Build energy sector’s capacity on risk assessment to attract investment.
- Leverage green finance to catalyze the energy transformation of Taiwan.
D. Conclusion
Leverage international climate funds on capacity building in response to climate change:
- Increase cooperation with GCF and multilateral banks
- Enhance productivity and create more job opportunities.
- Taiwan looks forward to interact and cooperate with SIDS in issues related to climate change and green funding

Develop climate change risk assessment tools to reduce the loss of climate risk:
- Multi-hazard early warning systems
- Pre-Disaster Risk Assessment (PDRA)
- Statistics and risk factors database (including gender, age, migration movement, social economy status)
Conclusion (2/2)

- Develop **project financing mechanisms** and **sustainable revolving funds** to establish renewable energy and energy-saving systems:
  - Provide project financing of renewable energy and energy-saving equipment
  - Improve the fund efficiency

- Leverage **energy saving insurance** to promote private sector participation and investment:
  - By the financial institutions to provide energy-saving insurance mechanism
  - Private sectors could bring productivity, capacity, & the possibility of business establishment
  - Signals to help adjust extra investment (bring out potential)
Thank You

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The Clean Energy Finance Forum of the University of Yale has identified ESI as a winning idea and a successful financial vehicle for climate change mitigation.

The solutions are in the process of being implemented in Colombia, Mexico, El Salvador, Brazil and Peru.

Constitutes the performance risk associated with investment projects in energy efficiency (EE) measures so that: i) potential private sector investors feel confident that their EE projects will generate enough energy savings to pay for the loans assumed to make the investments and eventually make a profit; and ii) local financial institutions become more aware of the real risk and returns associated with these projects and hence increase their willingness to finance them.
