

# *Potential Geothermal Risk Funds*



*presented by Tom Hamlin  
GEF Climate Change Coordination  
Technology Industry and Economics  
United Nations Environment Programme*



# *Operational Goal*

To assist clients in their efforts to address problems hampering recognition & achievement of global benefits.

---

*Key problems may include:*

- ◆ *Lack of information/ awareness*
  - ◆ *Institutional & capacity constraints*
  - ◆ *Assessment tools and know-how*
  - ◆ *Access to capital , transaction costs*
  - ◆ *Perceived incremental investment risks*
  - ◆ *Market imperfections*
-

*Constraints may include access to mainstream finance, increased initial transaction costs and perceived risks.*

*Project modalities may include:*

- ◆ *grants (technical assistance and policy support to public agencies)*
- ◆ *contingent grants*
- ◆ *contingent loans*
- ◆ *partial risk guarantees*
- ◆ *insurance modalities*
- ◆ *mixed modalities depending on the proponent*

# *Insurance Model*

---

- ◆ *A fee is paid up front for partial coverage of losses*
  - ◆ *In the event of loss, half the assessed amount of loss is reimbursed from the Risk Fund*
  - ◆ *Losses account for reinjection wells, target heat rate, resource quality*
-

# *Guarantee Fund*

---

- ◆ *funds not transferred unless there is a loss*
-

# *Contingent loan*

---

- ◆ *successful drilling repays loan on a repayment schedule*
-

# *Contingent grant*

---

- ◆ *grant is repaid on successful exploration from plant development financing*
-

# Process

---

- ◆ *Steering committee to establish and oversee process (GEF countries and donors)*
  - ◆ *Technical review board to review and advise on technical justification and estimate risk*
    - ♂ *Actuarial data is insufficient*
    - ♂ *Independent Expert opinion*
  - ◆ *AfD fund administrator (agreed executive functions)*
-



# *Incremental costs of problem resolution*

---

- ◆ Incremental Cost relates to problems currently hindering GEF clients to take opportunities to contribute to the achievement of goal environmental objectives in their mainstream business operations.
  - ◆ (Perceived) costs of problem resolution would be of incremental nature
  - ◆ Grant coverage of these costs is warranted if sponsored activities are not likely to allow cost recovery during the project life cycle.
  - ◆ Contingent financing modalities would be more appropriate if the activities are of commercial or quasi commercial nature - perceived incremental costs would be a function of performance uncertainties
-

# *Incremental costs of problem resolution*

---

## The concept of cost, risk and benefit sharing

- ◆ Budget ratios should be proportional to respective ranges of expected domestic and global benefits
  - ◆ Agreements would be supported by appropriate quantitative and qualitative comparisons of local economic, social ecological and global environmental benefits
  - ◆ Incremental Cost disbursements may be linked to benchmarks and milestones for progress towards projected impact/achievement of global benefits
-