

Insurance and Reinsurance for Natural Catastrophe Risk in Africa

November 13-14, 2006

Agriculture and Weather Cover



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Weather cover a solution for agriculture

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- For Developing countries looking for funding solutions
- Example: Ethiopian drought structure

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Weather cover for developing countries

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Weather derivative/insurance is a new instrument used in developing countries to :

- **Protect small farmers against drought**
- **Finance emergency aid for non governmental or governmental institutions in case of drought, flood....**
- **To provide insurance to populations that can't access to it**
- **Create a loan offer from banks for the farmers**

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New players and stakeholders

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- **Involvement of the World Bank since 2001 (CRMG team) on pilot projects design and implementation**
- **Involvement of non governmental organization to finance emergency aid (ex : WFP)**
- **Involvement of different donors in financing project development costs**
- **Involvement of local government and states to protect their population and farmers**

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Different needs

Two types of approaches:

- **Macro with government or international organizations as counterparts**
 - => The final beneficiary is not linked with the weather pay off formula**
- **Micro with local insurers or financial institutions as distributor**
 - => The final beneficiary is linked with the weather pay off formula (insurance contract)**

Specific issues with developing countries

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- **Data availability and quality is a big issue in developing countries:**
 - Few historical records,
 - Poor quality
 - Lack of transparency
- **Third party data provider involvement is essential**

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Specific issues with developing countries

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- **Weather hedge for Macro agriculture cover is very complex. Index is:**
 - Multi-station
 - Multi-period
 - Multi-crop
- **Greater diversification**
- **No hedging available**

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Some successful projects

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- **Mexico**

Macro approach with state government as sponsor and local farmers as beneficiaries

- **India**

Micro approach, weather insurance link with loans (bank as beneficiary)

- **Ethiopia**

Macro approach with the World Food Programme as counterpart and donors as premium payer.

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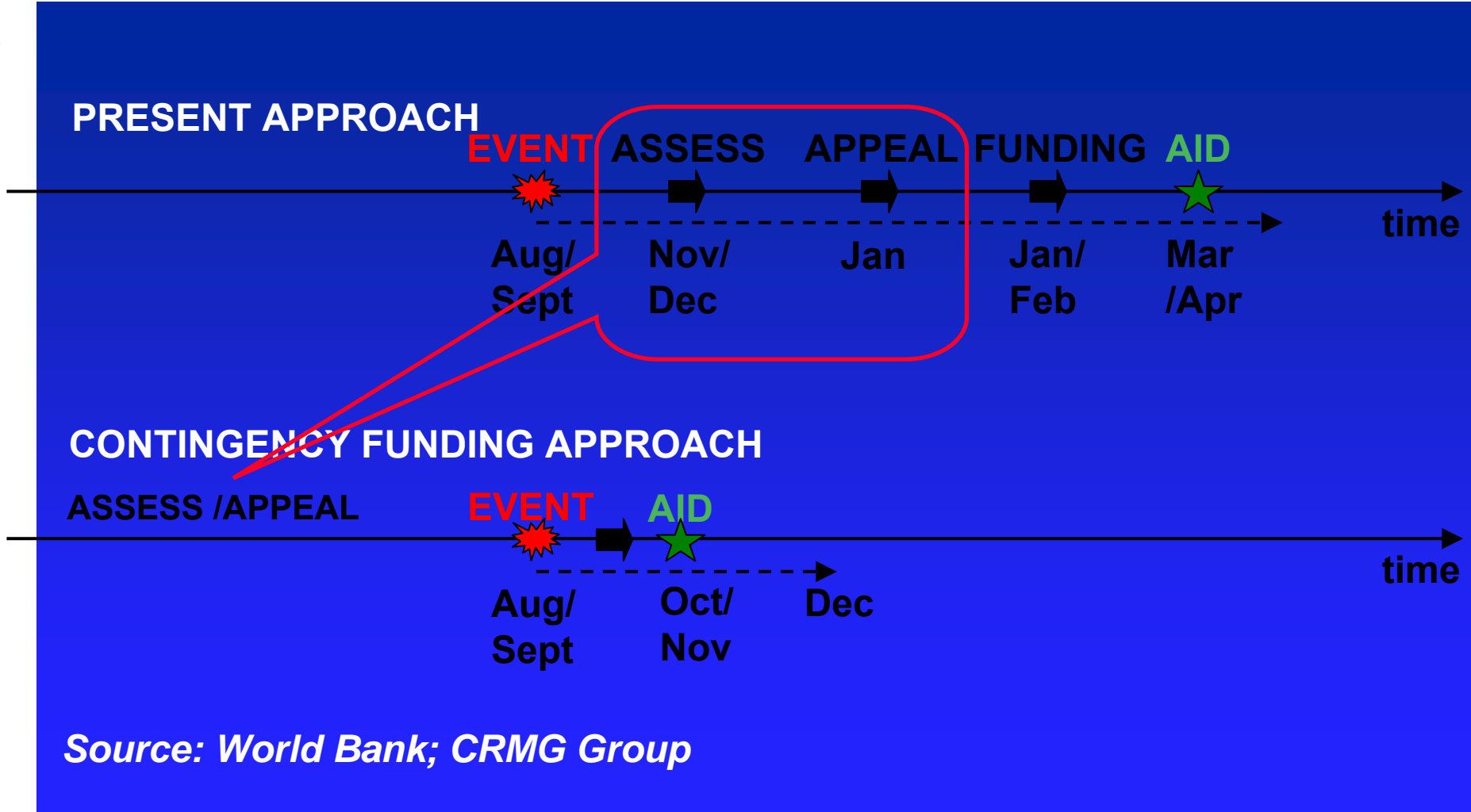
Example: Ethiopian drought structure

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Aid Funding

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Ethiopian Structure

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- **Target : to establish contingency funding for an effective aid response.**
- **Vehicle : based on FAO's crop water balance model and 26 primary weather stations with daily data**
- **Structure defined by crop and by weather station. Indexed yield calibrated to the income losses of "at risk farmers"**

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Ethiopian Transaction

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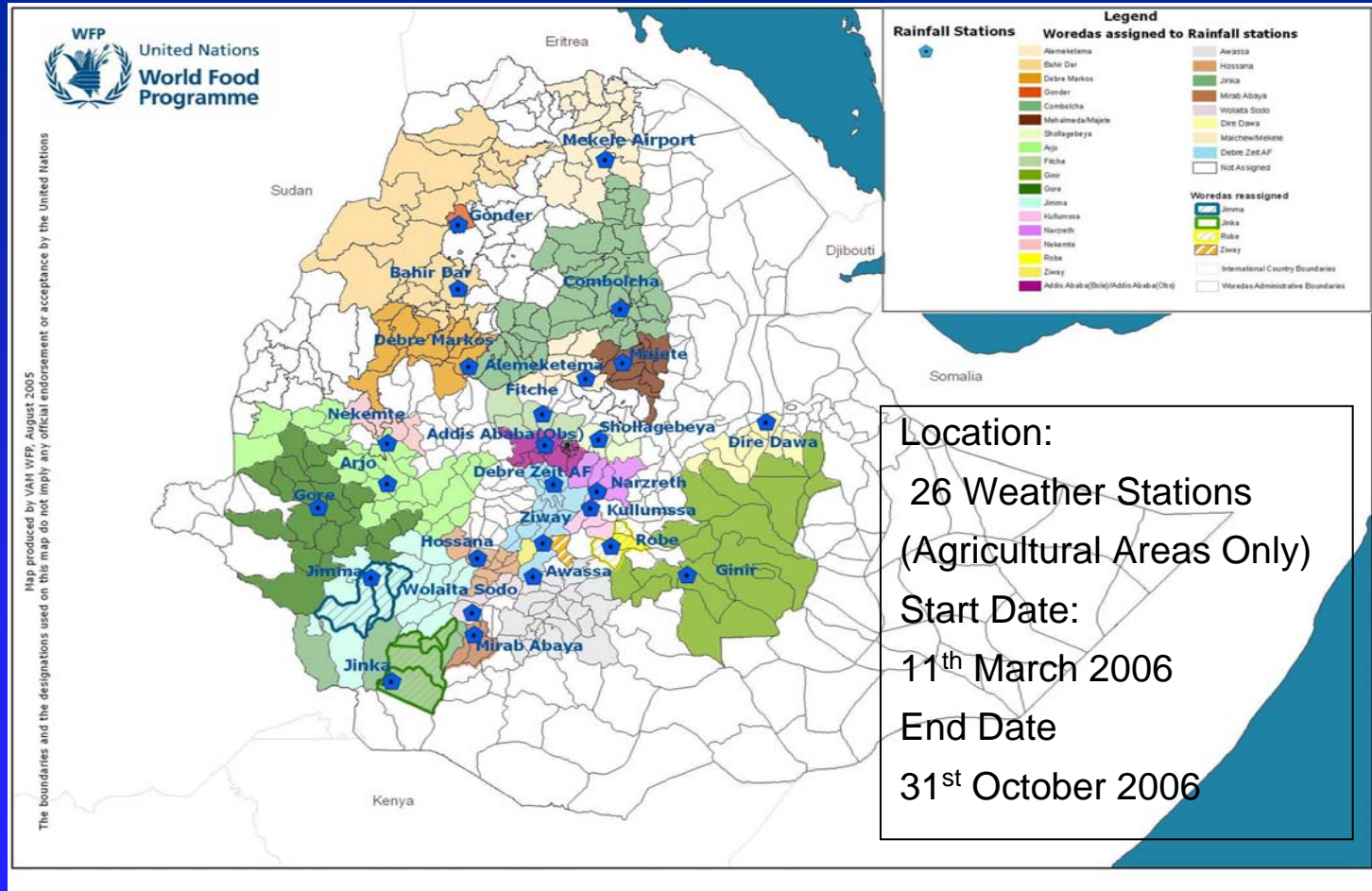
- **Derivative based on Master ISDA Documentation**
- **Counterparty: World Food Programme**
- **Trigger level: \$ 55 000 000**
- **Premium: \$ 930,000**
- **Payout rate: 0.35c per \$1 Index**
- **Maximum Payout: \$ 7,100,000**

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Ethiopian Weather station location

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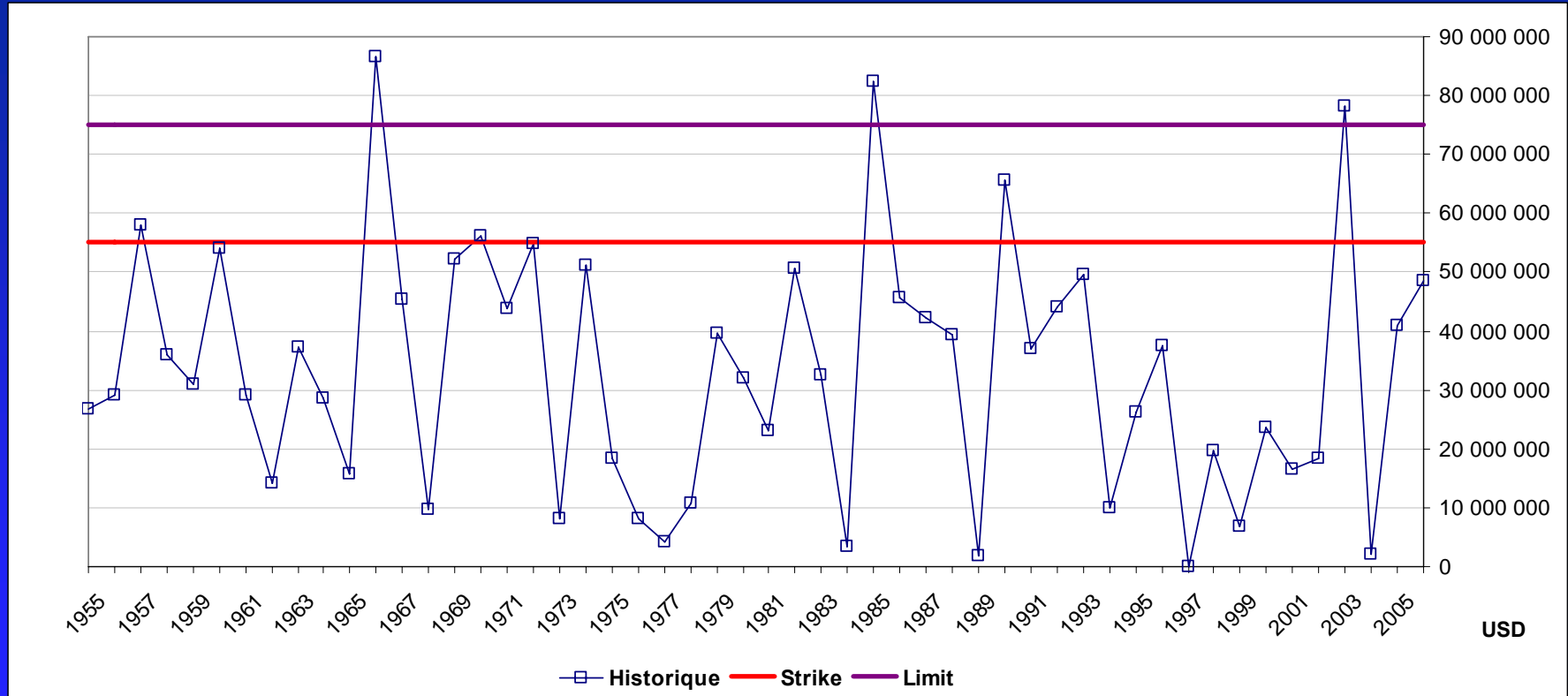


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Ethiopia drought Index

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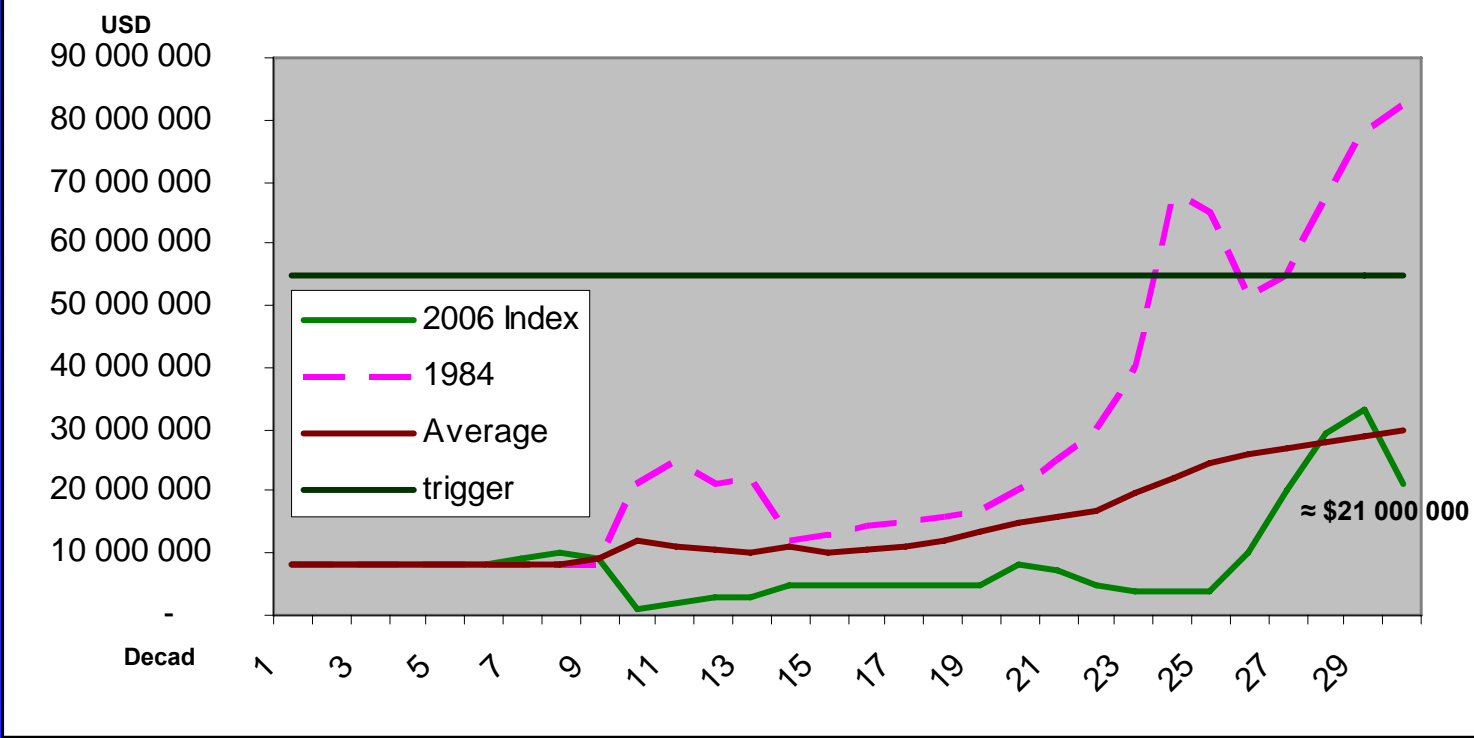


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Ethiopia 2006 drought Index value

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A dedicated team at your entire disposal:

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