

The logo for EcoSecurities, featuring the text "ECO SECURITIES" in white capital letters on a dark blue rectangular background.

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The background of the slide is a landscape photograph of a snow-capped mountain range under a clear blue sky. In the foreground, there are green fields. A circular inset in the upper right corner shows a person wearing a white shirt and a hard hat, working inside a large, dark tunnel. Dotted lines connect the logos in the top left to the circular inset.

# Climate Change Financing for the UNCCD – Funding Opportunities to Support SLM and Project Examples from Asia and Africa

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*UNCCD-CRIC, Istanbul, 13 November 2008*



- 1. Policy and market background**
- 2. Carbon markets and adaptation funding**
- 3. UNCCD relevant mitigation and adaptation measures**
- 4. Project examples from Asia and Africa**



# The Answers to Climate Change

## Climate change mitigation:

An anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases.

→ Many sectors have mitigation potential

→ Untapped potential in the agricultural, rural and land use sector

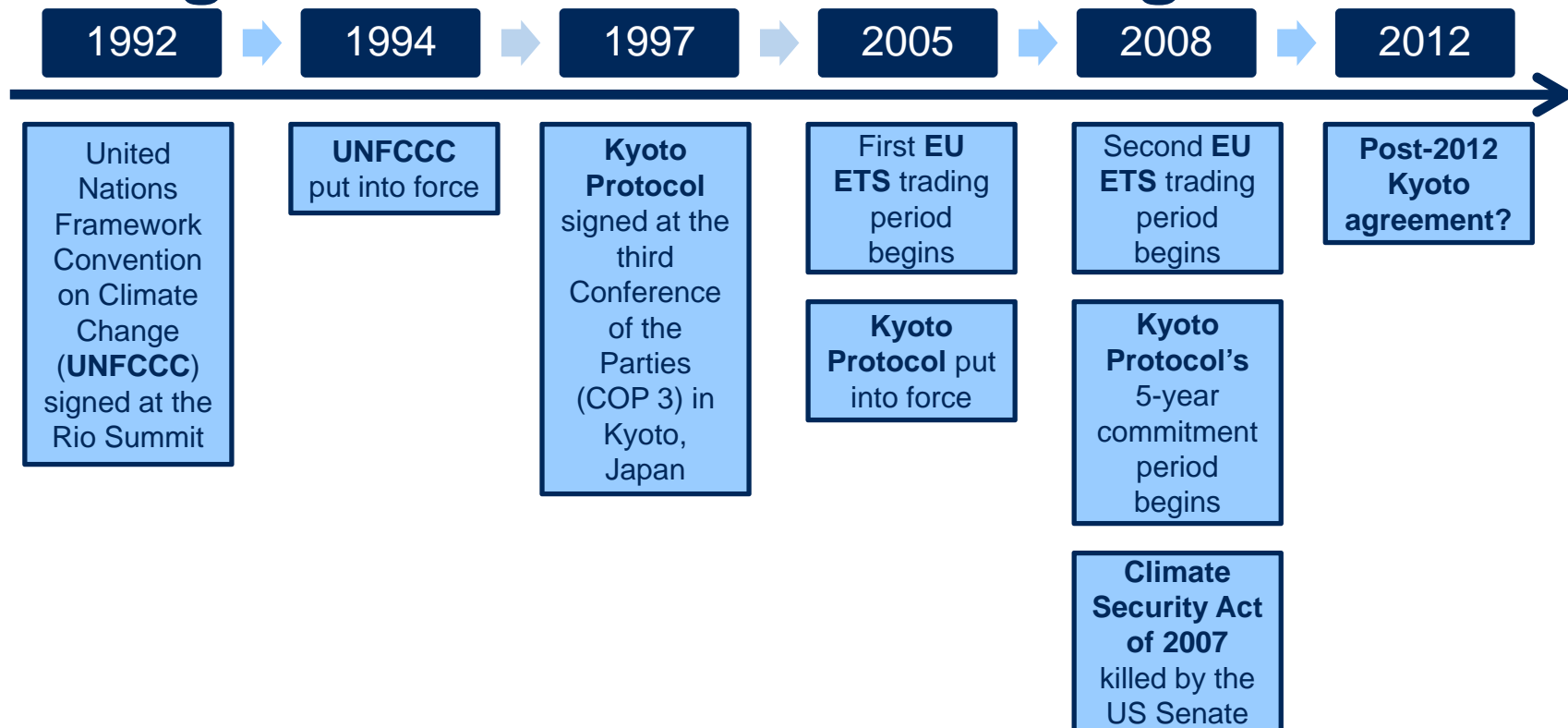
## Climate change adaptation:

The adjustment in natural or human systems in response to actual or expected stimuli or their effects, which moderates harm or exploits beneficial opportunities.

UNFCCC mainly focused on climate change mitigation in its early days, but the issue of adaptation rise fast in the priority list of the UNFCCC.

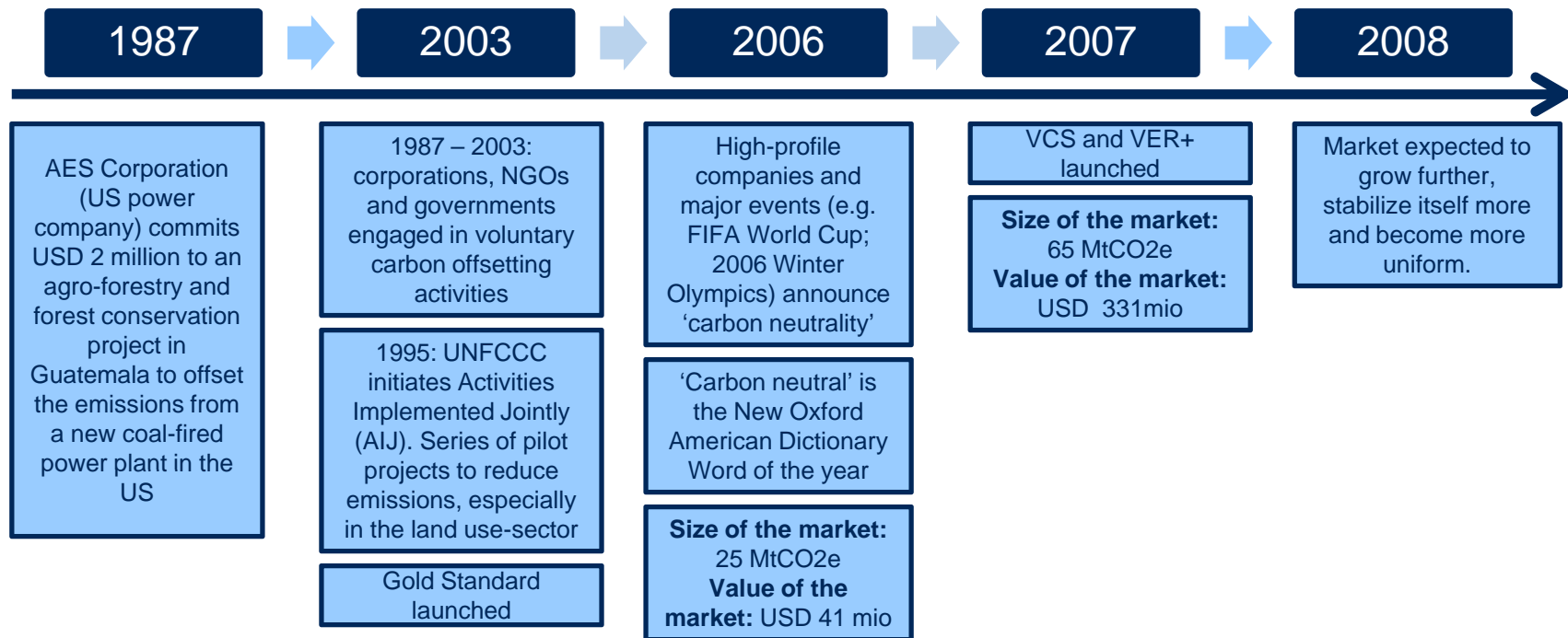


# The International Policy Framework for Mitigation and Carbon Trading



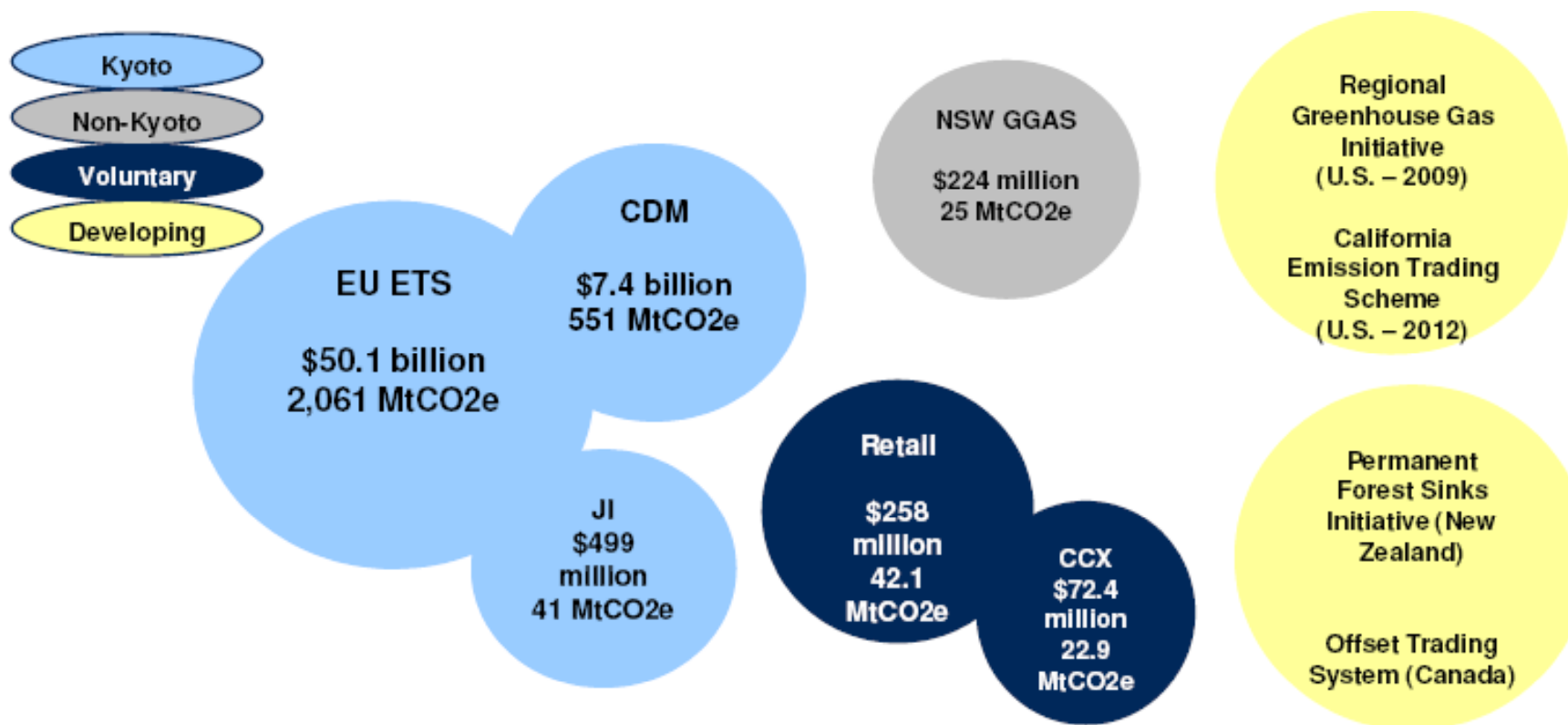


# The Voluntary Carbon Market(s)





# The Various Carbon Markets in 2007



Source: State of the Voluntary Carbon Markets 2008



# Flexible Mechanisms and Offsetting

**Flexible mechanisms** allow countries (or entities within these countries) to achieve their emission targets in a cost effective way

- **Emission Trading** (trading of allowances between Annex I governments)
  - AAUs
- **Joint Implementation** (projects between Annex I countries)
  - ERUs
- **Clean Development Mechanism** (projects in Non-Annex I countries with participation of Annex I countries)
  - CERs
- **Voluntary offsetting** (projects that mitigate climate change but outside the Kyoto compliance regime – offsetting emissions voluntarily)
  - VERs



# Adaptation Funding (UNFCCC/GEF)

## Least Developed Countries Fund (LDCF)

- Focus on the urgent and immediate adaptation needs of least developed countries.
- Operated by the GEF; the GEF partly finances projects with the idea that its involvement will either support or help to attract co-financing

## Special Climate Change Fund (SCCF)

- Finance adaptation worldwide
- Operated by the GEF; the GEF partly finances projects with the idea that its involvement will either support or help to attract co-financing

## Adaptation Fund (The Kyoto Protocol Fund)

- Funds adaptation activities in developing countries that are parties to the Kyoto Protocol, in particular in those most vulnerable to the adverse impacts of climate change.
- Administered by an independent Adaptation Fund Board; it is financed by a share of proceeds from CDM project activities.
- Expected to have access to USD 100-500 million by 2012



# Adaptation Funding (GEF/others)

## Strategic Priority for Adaptation (SPA) Fund

- Run by the GEF
- Responsible for financing the first concrete adaptation projects implementing measures for the specific purpose of reducing vulnerability and increasing the adaptive capacity of vulnerable communities and the ecosystems that they live on

## Other funding options

- Bi-lateral/ multi-lateral (donor) funding
- Private sector increasingly affected and interested



# Status of Adaptation Funds

	<u>Pledges</u>	<u>Project Approvals</u>
SPA	\$50 mil.	\$47.28 mil. (21)
LDCF	\$180 mil.	\$36.79 mil. (12)
SCCF	\$90 mil.	\$67.60 mil. (17)

- Project approval includes all projects officially approved as well as those in the process of being approved.
- **SPA funding has all been allocated** and will undergo an evaluation.
- Additional **LDCF projects** will be approved once **countries submit their NAPA.**
- **SCCF funding is approaching to total pledge.** Additional projects will be approved once pledge is received.

Source: GEF



# Opportunities to generate carbon credits in the land-use, rural and agricultural sectors

Reducing emissions by...

- ... reducing fertilizer use*
- ... anaerobic digestion*
- ... modifying livestock management*
- ... using bioenergy*
- ... use of renewable energy*
- ... improving energy efficiency*
- ... increasing sequestration or conservation of carbon through various forestry and land use based activities*





# Adaptation Measures

Projects may therefore include the following:

- Safeguarding water resources
- Implementing disaster management
- Diversifying economic activity
- Protecting health

Specific adaptation measures in the land-use sector may include:

- Protecting and enhancing agriculture and forestry
- Protecting natural resources and ecosystems
- Protecting coastal zones



## Biogas Support Program – Mitigation Project, Nepal

### Project description

- ✓ **Reduction of GHG emissions** by displacing fuel wood and kerosene
- ✓ **Distribution of biogas digesters** to households located primarily in the rural areas
- ✓ **9,708 small biogas digesters** installed from Nov 2003 to June 2004
- ✓ **Sub-project of the BSP-Nepal umbrella biogas program:** installment of a total of 200,000 small biogas digesters all over Nepal
- ✓ **Primary buyers of the biogas plants: farming households** in remote areas
- ✓ **Technology:** households feed **cattle dung (cows or buffaloes) mixed with water** into the biogas plant - anaerobic digestion produces **biogas**

### Project participants

- ✓ Alternative Energy Promotion Centre, Nepal (AEPC), Households Maiya Gautam and Suk Man Tamang, The Community Development Carbon Fund (CDCF)
- ✓ (Financial and technical assistance by KfW and SNV)

**Standard applied for high-quality/premium sales: CDM Programme of Activities** (first phase consists of 2 small scale CDM projects)



## Biogas Support Program – Mitigation Project, Nepal

**Carbon credits:** ~329,000 tons of net emissions over a crediting period of 7 years (2004-2011). Average of 46,990 tCO<sub>2</sub>e per year ~ US\$700,000 per year/US\$4.93 Mio over crediting period (at \$15 per ton for primary CERs)

**Project costs:** US\$ 25 million

**Timeline :** starting date - Nov 2003; operational lifetime: 21 years (3x7)

### Status

- ✓ registered
- ✓ issuance of CERs rejected because of technical issues related to monitoring – should be solved

**Stakeholder consultations:** local consultations were undertaken with biogas users and non-users in two districts in the Terai (Dhanusha) and Hills (Baglung) regions plus an int. consultation as part of the project design process



## Biogas Support Program – Mitigation Project, Nepal

### Sustainable development benefits:

- ✓ **reduction of collection and use of firewood** for cooking (and heating) while supporting forest conservation goals
- ✓ residual biological slurry from the biogas plants can be used as **superior organic fertilizers to enhance agricultural yields**
- ✓ reduction in time and energy spent by women and children in collecting firewood for cooking
- ✓ attachment of latrines to biogas plants providing better sanitation to rural households
- ✓ potential employment will add more than 15,000 skilled people in the construction, maintenance, marketing, and financing of biogas plants
- ✓ the use of biogas means negligible smoke/avoidance of indoor air pollution

### Collaboration with Private Sector/Private Sector Involvement

- ✓ The CDCF purchases the CERs – CDCF consists of public and private participants



## Ugastove Project – Mitigation Project in Uganda

### Project description

- ✓ **Reduction of emissions from the burning of wood** (unsustainably harvested)
- ✓ **Fuel-efficient stoves distributed** to individuals and organizations (including schools) throughout Kampala - stoves replace old, wood- and charcoal-intensive stoves traditionally used for cooking throughout the area

**Standard applied for high-quality/premium sales: Gold Standard**

**Project participants:** Climate Care and CEIHD (non-profit)

**Carbon credits:** ~**518,581 tCO<sub>2</sub>e** over crediting period of 7 years (2006-2013). Crediting period is renewable. **Average 75,000 tCO<sub>2</sub>e per year ~ US\$750,000 per year/US\$5.18 Mio** over crediting period (at \$10 per ton for VERs)

**Timeline:** Starting date of first crediting period: 1<sup>st</sup> April 2008; operational lifetime: 7 years, renewable

**Status:** Listed under the Gold Standard and about to complete validation



## Ugastove Project – Mitigation Project in Uganda

**Stakeholder consultation:** two local consultations with representatives from government, environmental and civil society organizations, academia and the private sector **plus an int. consultation**

### **Sustainable development benefits:**

- ✓ **reduced pressure on remaining forest reserves/forestland** (incl. positive impact on local biodiversity and avoidance of further degradation processes) – **reduction in fuel wood and charcoal use**
- ✓ human and institutional capacity raised through business development component
- ✓ reduced fuel costs
- ✓ reduced exposure to health-damaging airborne pollutants
- ✓ increased employment opportunities
- ✓ stoves more convenient, shortening the cooking time
- ✓ technological self-reliance (locally manufactured with energy efficiency)

### **Collaboration with Private Sector/Private Sector Involvement**

- ✓ Climate Care (JP Morgan) is a private sector player and key project participant



# Solar Water Heaters Programme – Mitigation Project in Tunisia

## Project description

- ✓ **Displacement of carbon intensive electricity** from the grid and fossil fuels currently used to provide hot water in the households.
- ✓ **Installment of ~ 30,000 solar water heaters per year** in households
- ✓ **Loan support programme** for the installation of domestic solar water heaters

**Standard applied for high-quality/premium sales:** CDM Programme of Activities

**Project participant:** Tunisian National Agency for Energy Conservation (ANME)  
(technical support to the project by GTZ)

**Carbon credits:** approx. **670-700,000 CERs** from 2009-2018 ~ **US\$10.5 Mio** (at \$15 per ton for primary CERs)

**Timeline :** Starting date - 23/01/2007

**Status:** Under Validation – (CDM PoA still at an early stage)



## Solar Water Heaters Programme – Mitigation Project in Tunisia

**Stakeholder consultations:** organized nationally at various events including users (households), NGOs, trade union associations, government representatives plus there will need to be an int. stakeholder consultation.

### **Sustainable development benefits:**

- ✓ clean, practical and convenient way to meet daily hot water demand
- ✓ improving the indoor air quality
- ✓ decreasing the households' and country's dependence on fossil fuels
- ✓ strengthening the solar water heater sector in Tunisia by providing state-of-the art technology, creating job opportunities in the manufacturing, supply, installation, operation and maintenance fields

### **Collaboration with Private Sector/Private Sector Involvement**

- ✓ A national (ALCOR) and international private sector player (EcoSecurities) provide expertise to the development of the project



# Coping with drought and climate change – adaptation project in Ethiopia

## Project description

- ✓ Enhance food security and capacity to **adapt to climate change in agricultural and pastoral systems**
- ✓ Develop and **pilot coping mechanisms for reducing vulnerability of farmers and pastoralists** to future climate shocks: (1) cope with drought, (2) early warning systems provide timely and relevant information, (3) drought preparedness and mitigation policies, and (4) deploy and replicate successful approaches.

**Agency:** UNDP

**Funding:** Total US\$2.8 Mio, incl. GEF US\$995,000 (SCCF)

**Timeline :** January 2007, 5 years duration

**Status:** Grant approved



# Climate Adaptation for Rural Livelihoods and Agriculture – Malawi

## Project description

- ✓ investments aiming to improve agricultural, land management and natural systems as well as rural livelihoods through targeted on the ground adaptation interventions
- ✓ fostering adaptation of individuals, communities and the private sector
- ✓ enhance water distribution, promote better irrigation efficiency, change irrigation schedules, water recycling, groundwater capture, and system rehabilitation.
- ✓ creation of an enabling environment for climate risk management
- ✓ lay the foundation for replication of best practices

**Agencies:** AfDB, Ministry of Mines, Natural Resources and Environment, Ministry of Irrigation and Water Development

**Funding:** Total US\$ 27 Mio, incl. GEF US\$ 3Mio (LDCF)

**Timeline :** August 2008, 5 years duration

**Status:** Grant approved



Questions?  
Thank you!

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