

# Frameworks and Mechanisms for New Markets for Biodiversity Products and Services

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## 2. Practical initiatives from the *Dutch Fund for Nature Development*

- Forest Certificates Fund
- Green Fiscal Policy
- Firm relocation
- 'Red-for-Green'

## 3. Other financial constructions one can think of.....



# 1. Increasingly a market oriented approach to biodiversity conservation (1)

- Shifting focus from government regulation (laws/regulation, budget for PAs) to a *market-based approach*
- Different approaches:
  - Payments for ecosystem services
    - Different ES: 1) water; 2) carbon; 3) biodiversity; 4) scenic beauty.
    - One-time payments vs real markets
    - Public (government agencies)
    - Private (individual companies/investors)
  - Focusing on the biodiversity risks & opportunities corporations are exposed to



# 1. Increasingly a market oriented approach to biodiversity conservation (2)

- Creating demand is crucial
  - Solid business case: focus on the needs of the private sector
  - Develop innovative finance mechanisms (e.g. Eco-Securitization)
  - Target new stakeholders in a new way (e.g. Landscape Auctioning / YourGoodNature)
  - But....the government often has to play a major role in making markets successful
    - Regulation
    - Imposing caps on ecosystem degradation (e.g. cap-and-trade markets / create scarcity)



## 2. Practical initiatives from the DFND

### Overview assets Dutch Fund for Nature Development (DFND)

31-12-2007

- ✓ Balance (debit/credit): € 1 billion
- ✓ Loans receivables: € 580 million
  - of which 'fiscal green' loans: € 179 million
- ✓ Project account: € 133 million
- ✓ Subsidies paid: € 927 million
- ✓ Equity: € 31 million

### Financial products with a focus on biodiversity

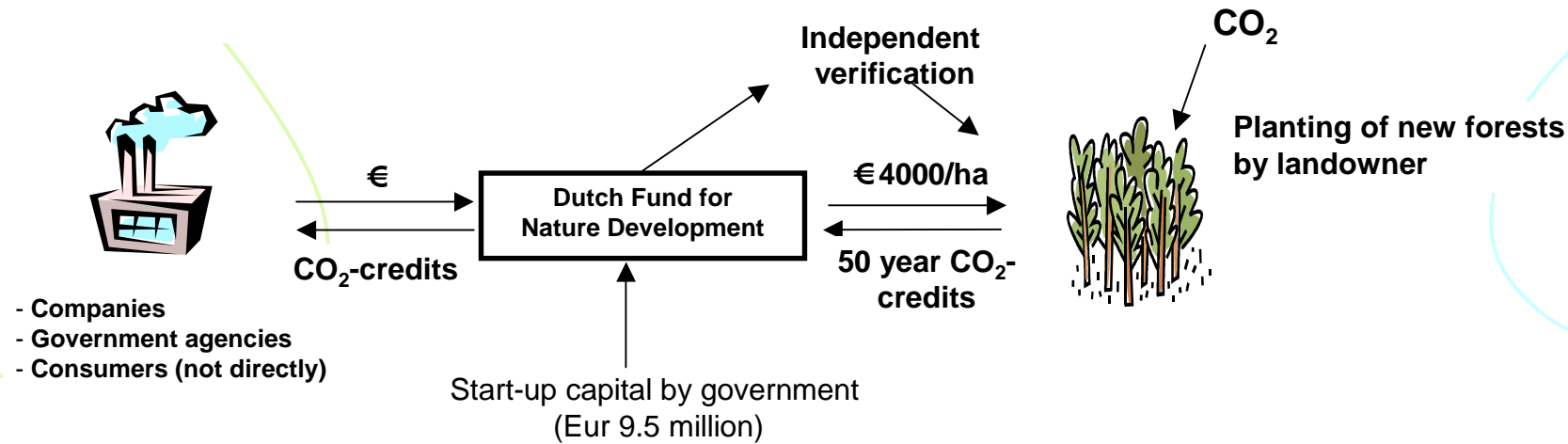
1. Forest Certificates Fund
2. Fiscal Green Regulation
3. Firm relocation
4. 'Red-for-Green'

#### Critical condition

Government creates favorable conditions by 1) providing start-up capital and/or 2) set new rules/regulations that triggers private sector interest



# 1) Forest Certificates Fund



## Motive government

- Stimulate afforestation at reasonable costs

## Motive seller CO2 credits

- Land owner: Considerable financial compensation for switching to forestry

## Motive buyer CO2 credits

- Companies: 1) reputation; 2) corporate responsibility; 3) improve staff morale

## Motive DFND

- Attractive way to stimulate afforestation in the Netherlands
- Create revolving fund

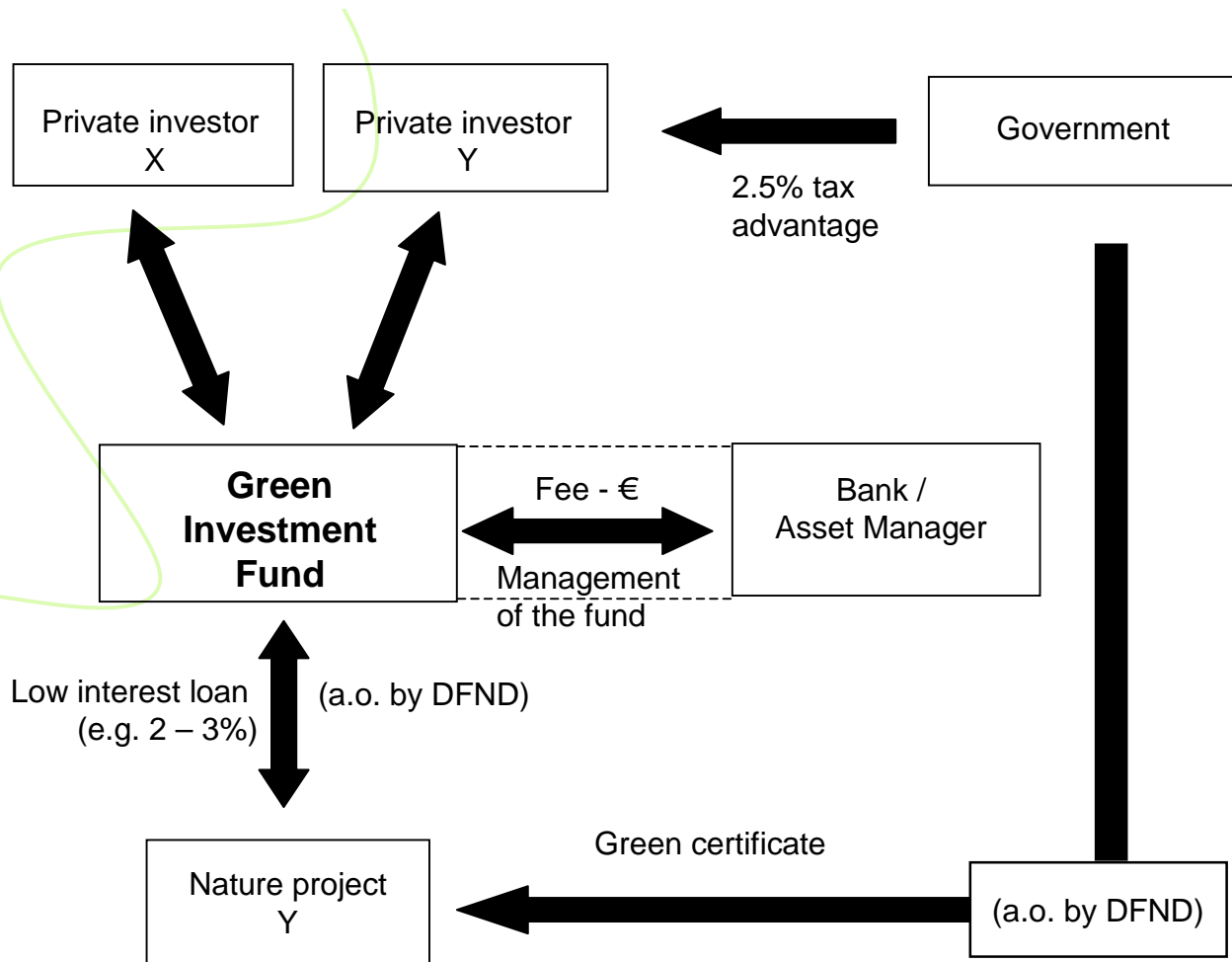
## Current situation

- 258 ha of new forests in 2007 (goal: 250 ha/yr)
  - 1770 ha of forests in portfolio – 164 afforestation projects
  - 1st monitoring underway: measures sequestered CO<sub>2</sub>
  - Independent verifier: SGS
  - Focus on 'voluntary carbon market'
  - In the process of developing our product (VERs or 'futures')
    - Legal
    - Fiscal
    - Demand from the market
- ential value CO<sub>2</sub>-credits = EUR 11 mil (depending on sale price)



## 2) Green Fiscal Investments

**Goal: Stimulate private investment in biodiversity-friendly projects**



### Motive investor

- Moderate investment return is about 2% (equal to investment return government bonds)
- Fiscal advantage = 2.5%
- Total investment return = 4.5%
- Stimulate projects that benefit nature conservation

### Motive government

- Stimulate investment in nature projects by private investors at low costs (reduction in tax revenue)

### Motive bank

- Fee for managing the 'green investment fund'
- Increase total assets under management
- Increase reputation

### Budget

- Total Eur 1.7 billion
- Conservation projects: EUR 60 - 80 million

### Types of nature projects

- Landscape restoration
- Bird protection systems
- Fish regulation systems in dams
- City development (housing / nature)



### 3) Low interest loans for firm relocation

- Government policy: relocation of intensive agricultural firms from vulnerable nature areas (e.g. National Ecological Network) to a 'farm development area'
- Government: subsidises break-down of farm on old location.
- Farm often needs a new loan to finance its business on the new location
- A commercial bank + DFND (up to a maximum of €250.000): finance relocation of het farm to a agriculture development area. DFND provides low interest loan.
- Example of firm relocation in the south of the Netherlands



#### Motive farmer

- Possibility to grow in the new location
- Government finances break-down of old farm
- Part of the loan has a low interest

#### Motive commercial bank

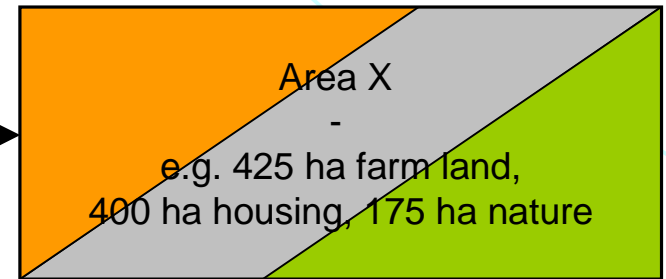
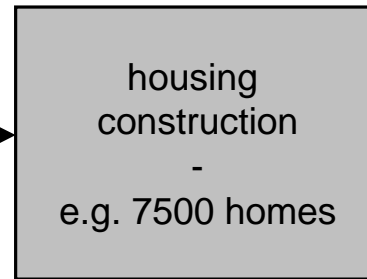
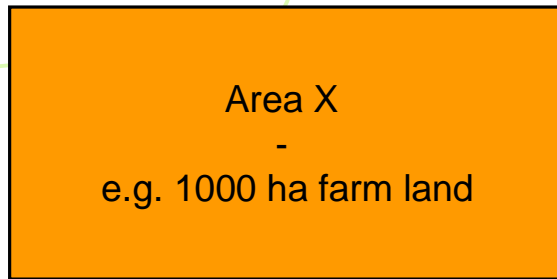
- Part of the financial arrangement is covered by DFND (risk sharing)

#### Motive government / DFND

- Stimulate relocation of intensive agricultural firms to relieve stress on nature area



## 4) 'Red-for-Green' (Red = housing / Green = nature)



'Red has to pay for Green'

### Motive farmer

- Good price for the land

### Motive private partner (e.g. project developer)

- Increase chances of project development (i.e. access to land)
- Develop new niche market for 'green living'

### Advantage government

- Improve quality/quantity of nature conservation (= policy goal)
- Support nature development more quickly
- Increase quality of living

## Other interesting financial constructions to think of.....

- **Combination of financial arrangements!!!**

*.....other financial mechanisms or products one can think of*

- **Biodiversity offsets** (conservation banking and wetland mitigation banking in the US. Also in Brazil, the Netherlands, Germany, UK .....??)
- **Eco-securities** (sustainable forestry bonds securities that can be offered to the capital market)
- **Landscape funds** (bundling public and private capital in a local fund to use for nature-related projects)



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# New York Catskill watershed

- Initiated in 1997
- *Context:* A extensive watershed payment scheme was set-up to *sustain* the water quality for NY
- *Motivation:* It was perceived to be cheaper to reduce non-point source pollution through *forest protection strategies* (US\$ 1-1.5 billion over 10 years) than to build *water treatment plants* (US\$ 6-8 billion over 10 years)
- *Buyer:* Consumers (residents of NY) are paying through water bills
- *Seller:* Dairy farmers and timber companies are compensated for adopting best-management practices



# Nestlé Waters

- *Context:* Payments to farmers are made in order to control the quality of the aquifers, Nestlé is drawing its mineral water from. US\$ 9 million invested to buy farm land (giving it back to farmers) + additional payments of US\$ 230/ha to manage land sustainably.
- *Motivation:* Reforesting sensitive infiltration zones, financing farmers to build modern facilities, and switching to organic farming practices **cheaper** than building filtration plants.
- *Buyer:* Nestlé Waters (formerly known as Perrier-Vittel)
- *Seller:* Farmers in the Rhine-Meuse watershed



# Wetland Mitigation Banking, USA

- *Context:* Wetland being degraded throughout the US for the past decade. The Clean Water act, enabled building a “off-set market” whereby land developers were obliged to offset damage made to wetlands.
- *Motivation:* Cost-effective (economic) solution to enable development while maintaining form of ecological health.
- *Buyer:* Land developers (both public and private)
- *Seller:* Landowners
- *Intermediary:* Wetland mitigation banks (500 active banks), who restore or create new wetlands.

Market Snapshot	
Market Volume	US\$289,659,866
Transaction Volume	47 transactions
Total wetland credits	7,967 credits [\$36,357.46/credit]
Land Area Protected/Restored	9,229 hectares (22,805 acres)

January 1, 2000 to April 30, 2005 | View Source Data/Assumptions

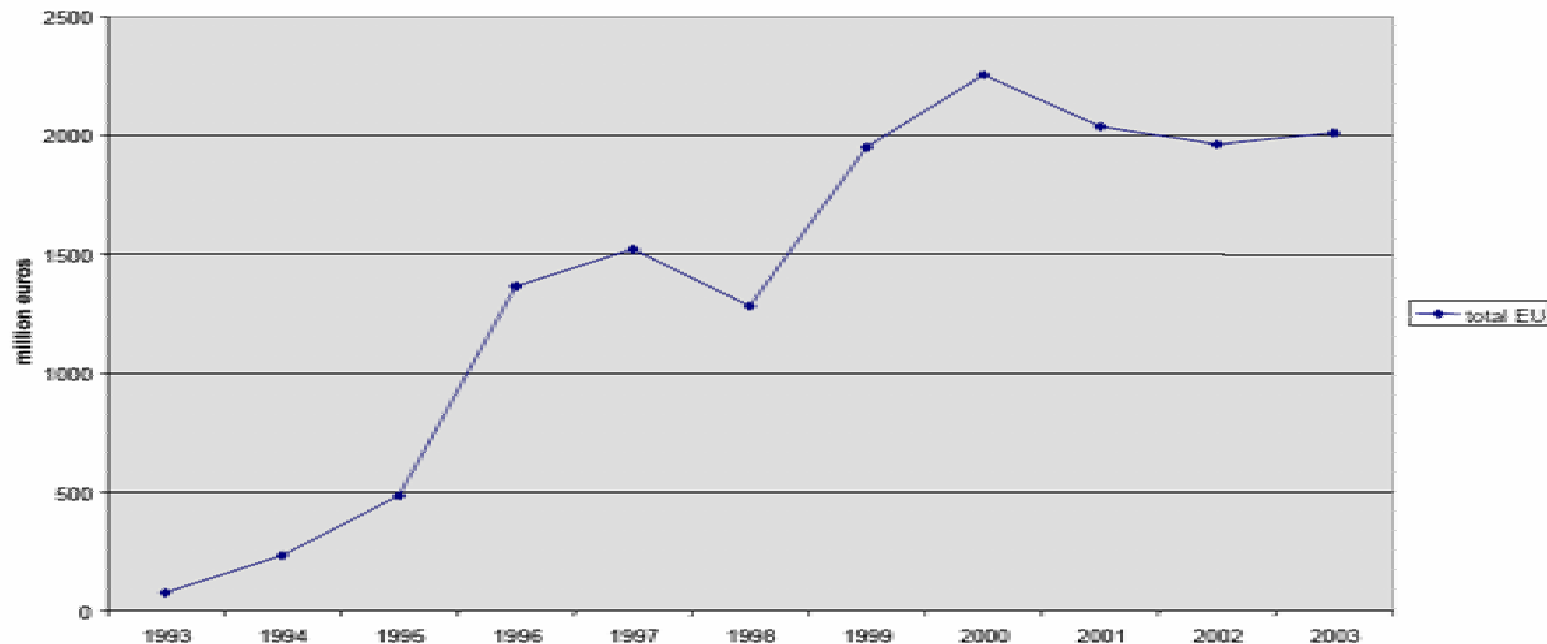
THE ECOLOGICAL GROUPS  
Ecosystem Marketplace



# EU Agri-Environmental Payments

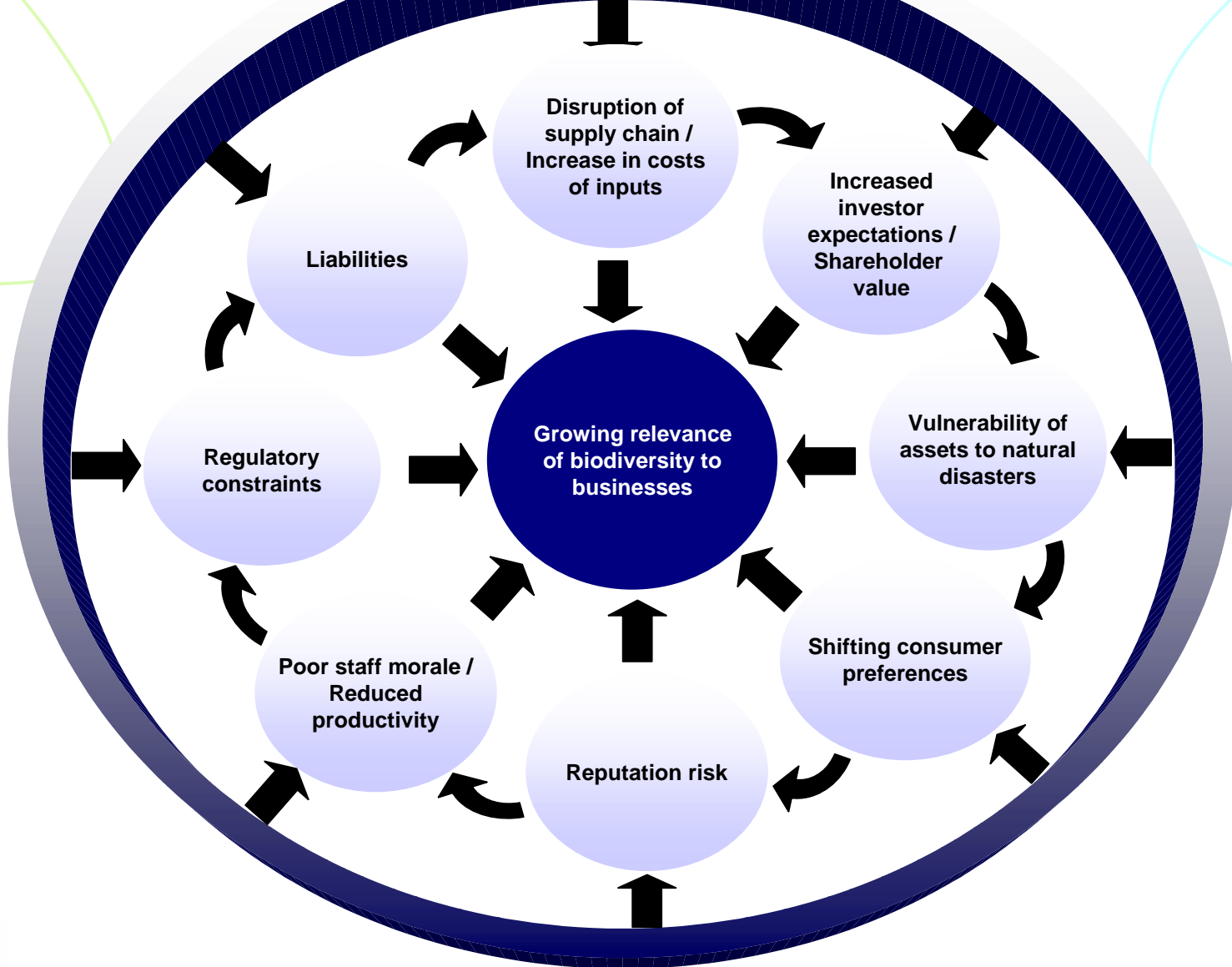
- *Buyer and seller.* Farmers are compensated by the EU and member states for:
  - *Additional costs* of implementing good-farming practices (beyond legal compliance)
  - *Any losses of income* (due to reduced income)
- *Types of payments:* a.o. measures to reduce the nitrate level, so to increase groundwater quality
- *Motivation:*
  - Laws are not always supported
  - Enforcement is sometimes weak

EU budget spending on agri-environment, 1993-2003



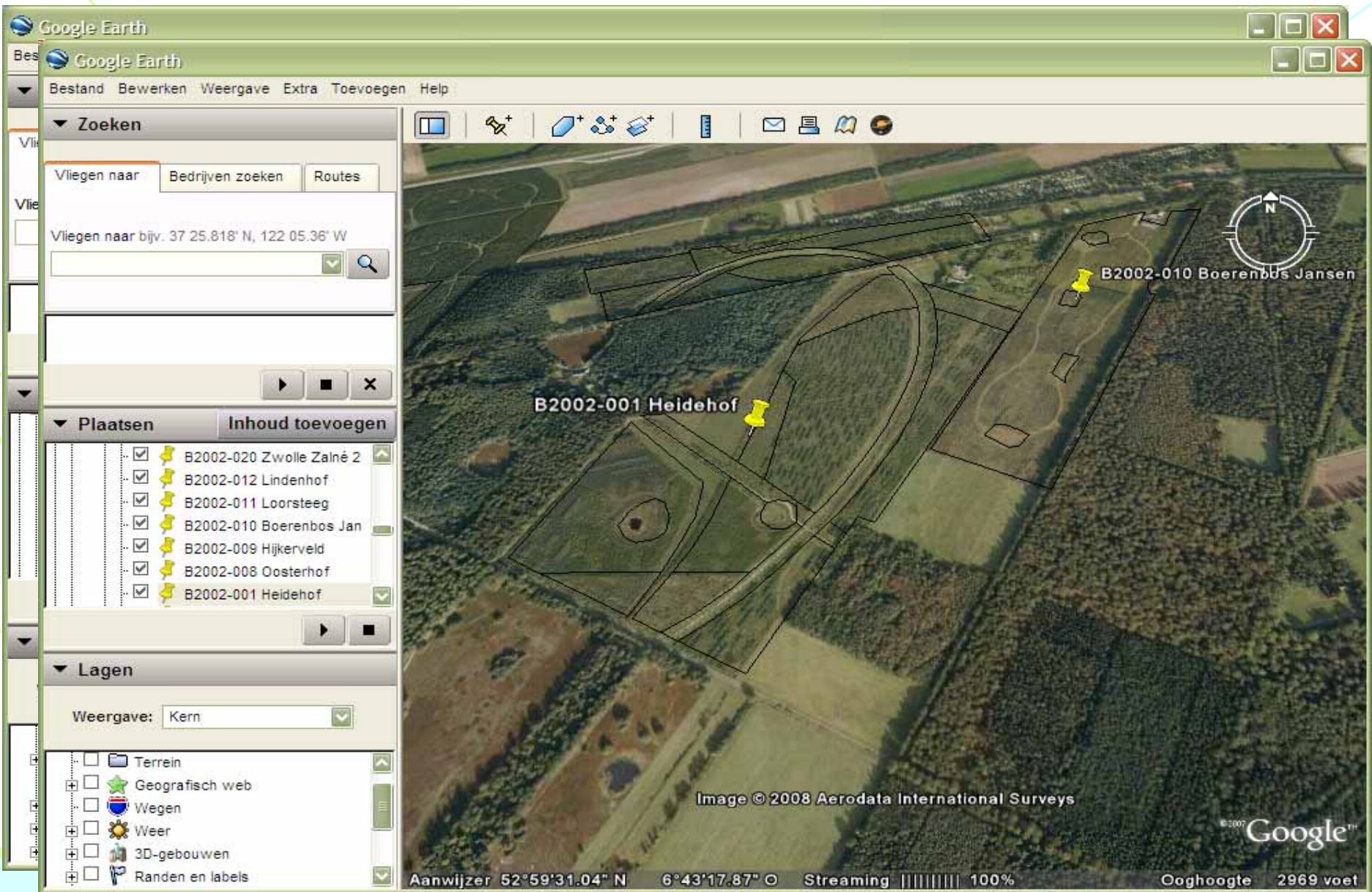


# Continued loss of global biodiversity



# Share price *Associated British Ports*

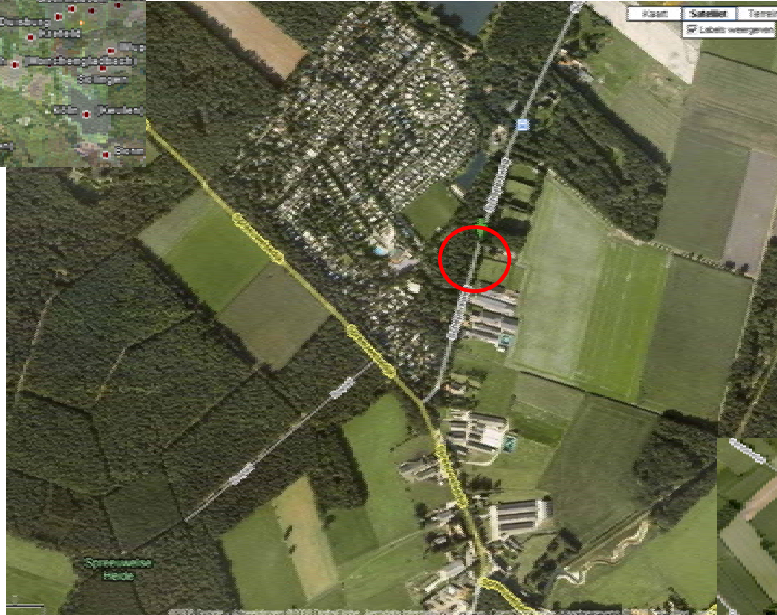








Old location: Farm was closely situated to National Ecological Network



New location: The farm is able to grow in size at the new location (about 20 km north)

