



CDM project developer's perspective

**Fourteenth Asia Pacific Seminar on Climate Change
September 21-24, 2004**

Presentation outline

- **Carbon Market & projects portfolio**
- **India and Kyoto protocol**
- **Indian CDM Project development**
- **Concerns in CDM**



**Carbon Market
&
projects portfolio**

CDM Milestones

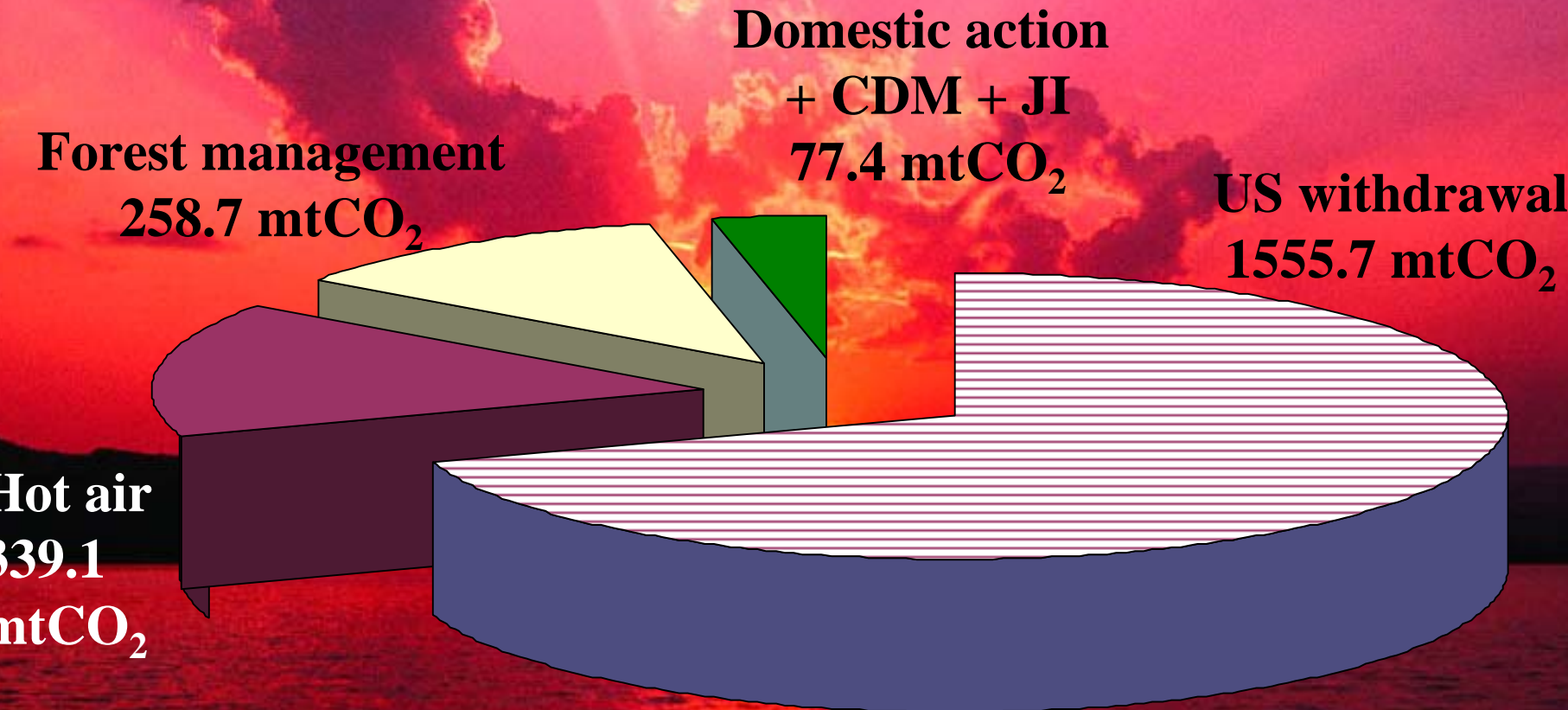
- **CDM Registry : early 2005**
- **Registration : August 2004**
- **EU:ETS CDM LD Adopted**
- **4 OEs designated (24/2)**
- **COP9 operationalizes LULUCF**
- **Several SSCPDDs for validation**
- **Several PDDs/PINs flying**
- **India No. 1: Investor's HC ranking destination for CDM under Point Carbon survey**



Size of the CDM market?

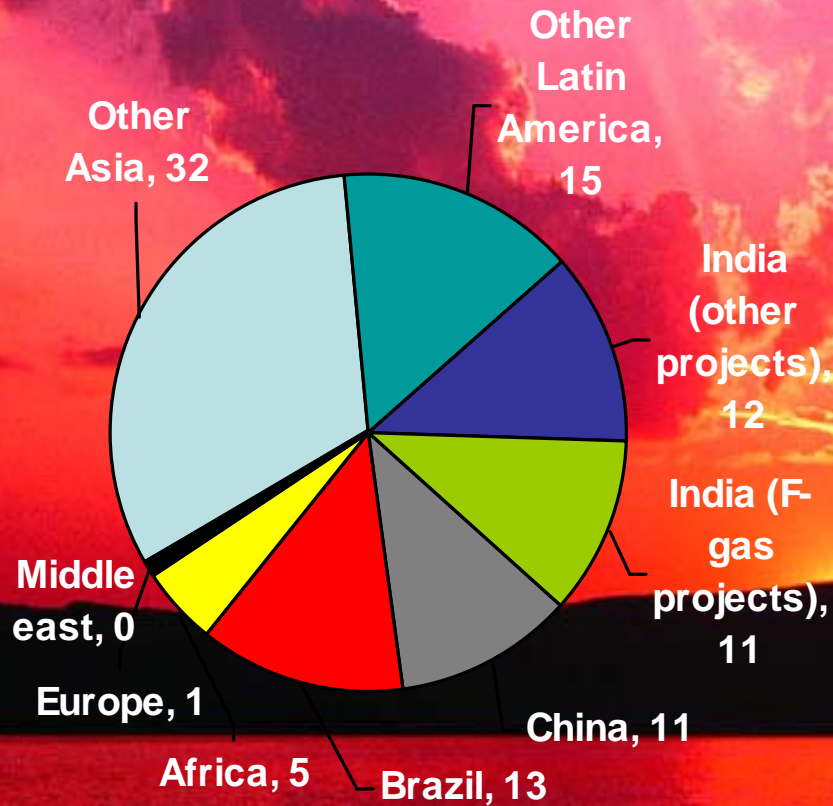
Decline in
price of carbon

Dilution of Kyoto
commitments

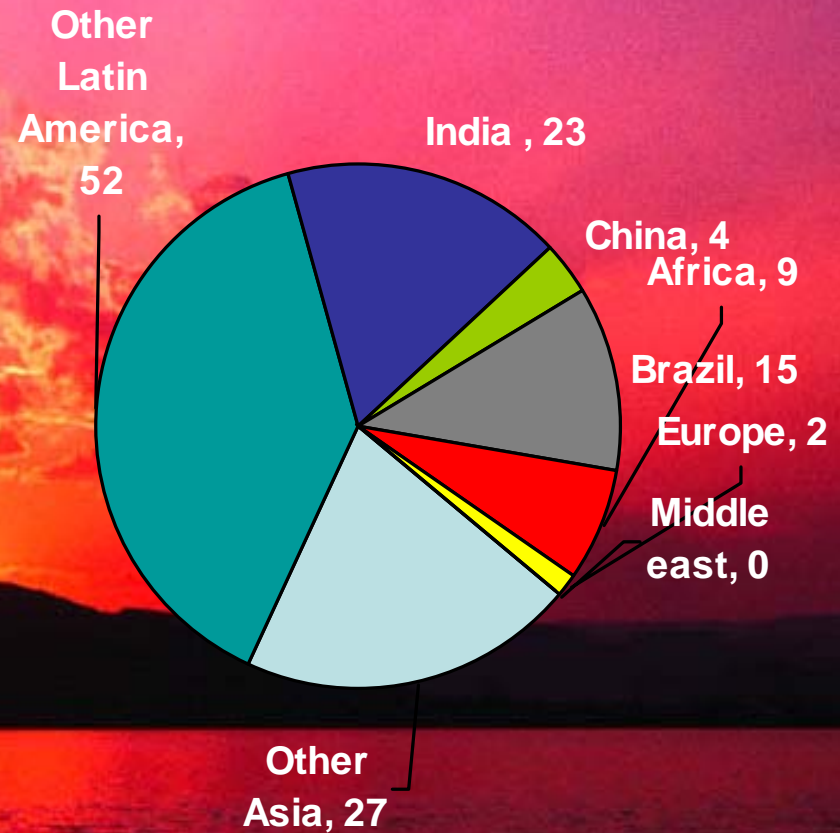


Projects distribution : CDM

% of annual credits

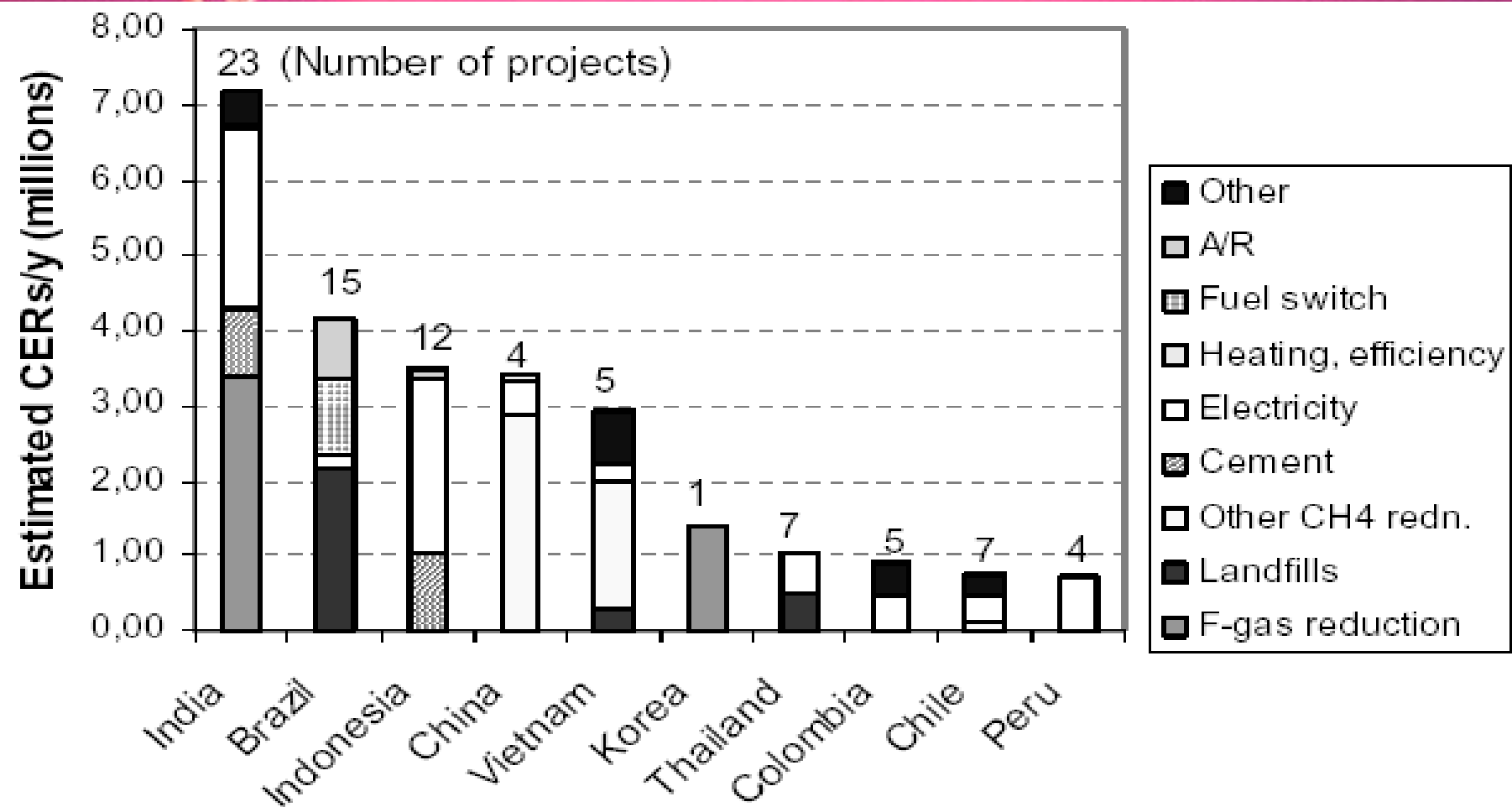


No. of projects

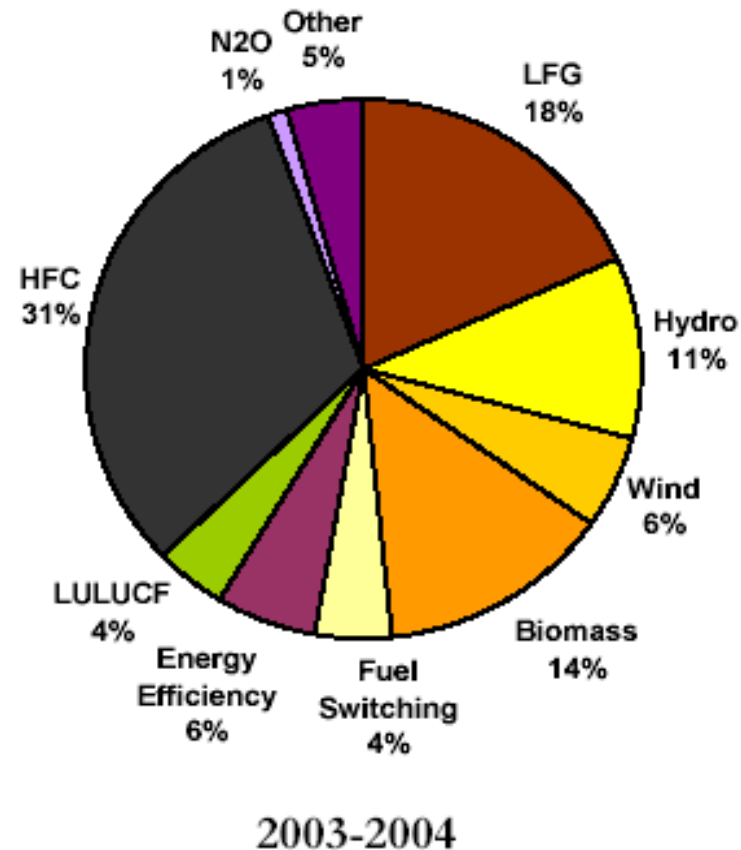
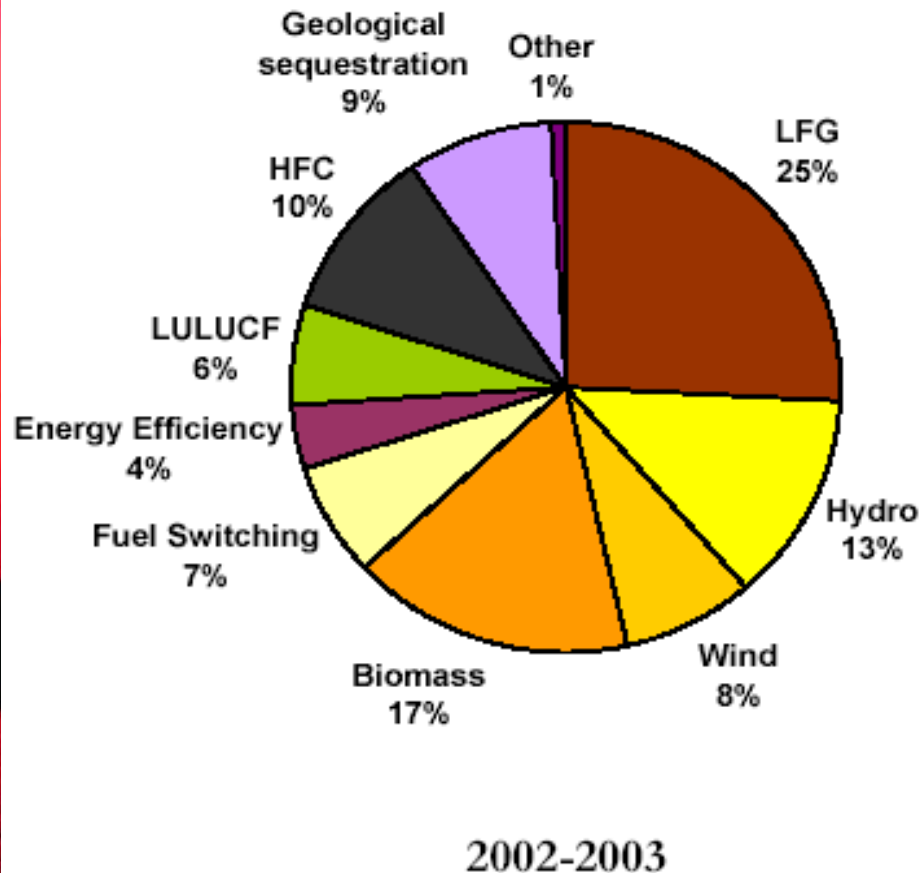


Source: OECD June '04

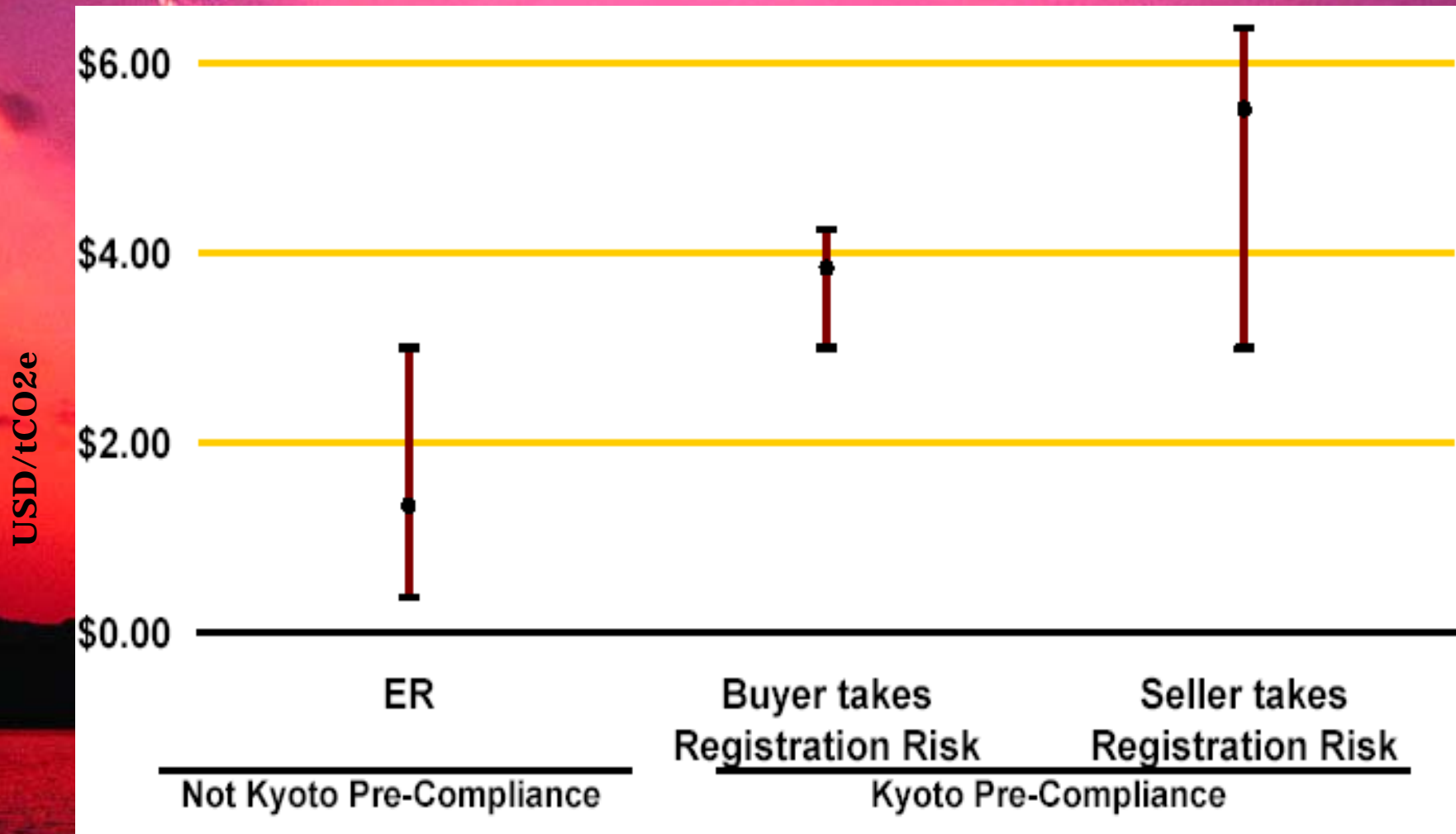
CDM Portfolio : Top 10 countries



Technology share of projects 2003 - 2004 (%)



Prices for non-retail ERs (03-04)



India and Kyoto protocol

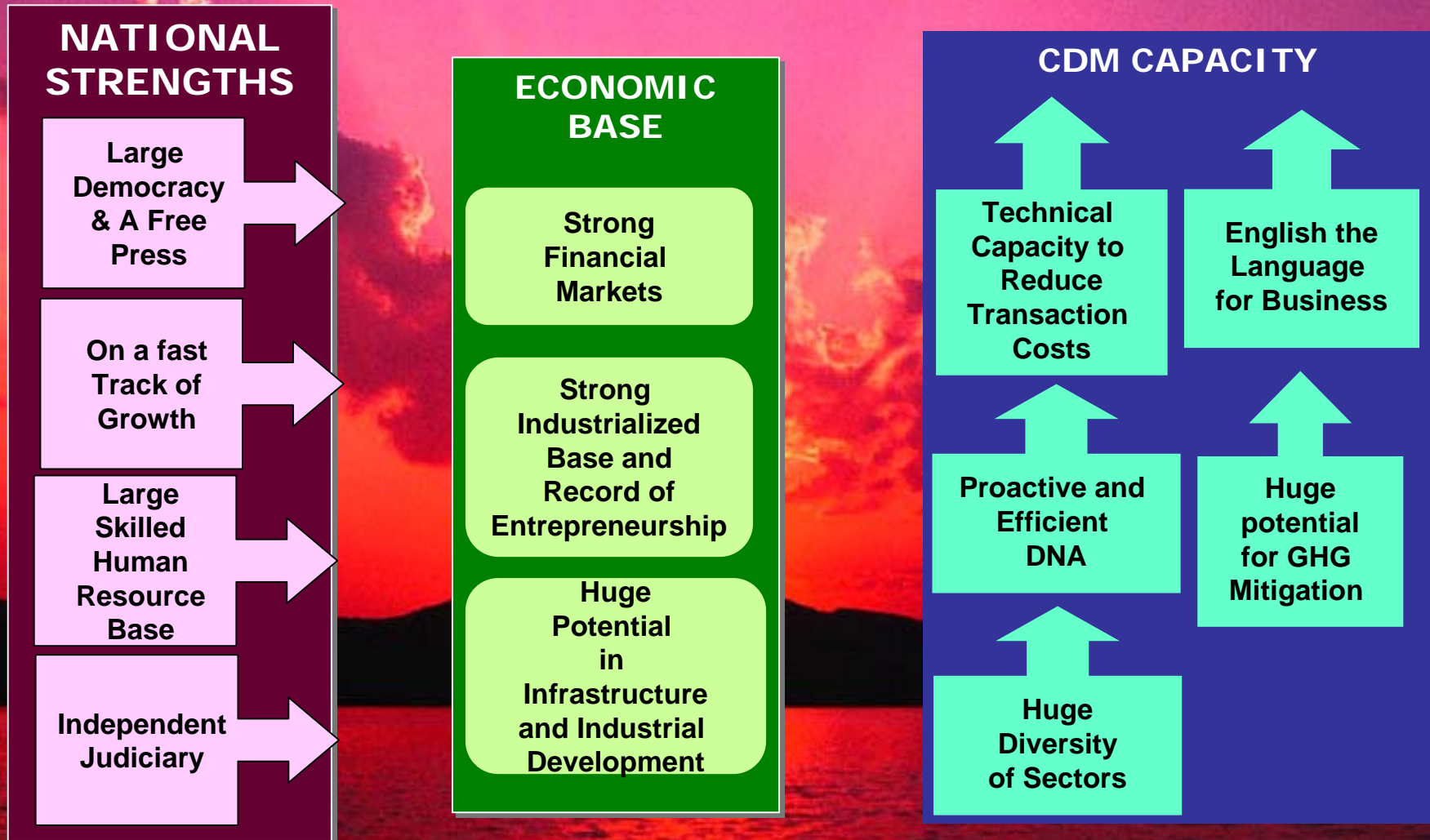




India and the Kyoto Protocol

- **Kyoto Protocol – acceded in August 2002**
- **Hosted COP – 8 (2002)**
- **Presidency of COP (2002-03)**
- **Climate Technology Bazaar & Conferences (2003)**
- **Establishment of DNA (December 2003)**

CDM : Destination India



National Strategy Study - India

Objectives

- Assess issues & opportunities presented by potential international markets for GHG offsets
- Evaluate processes & methodologies to facilitate CDM project cycle

Partners

- TERI
- IDFC & Legal expert
- INFRAS AG
- Ernst Basler+Partners Ltd.
- LASEN, Swiss Federal Institute of Technology

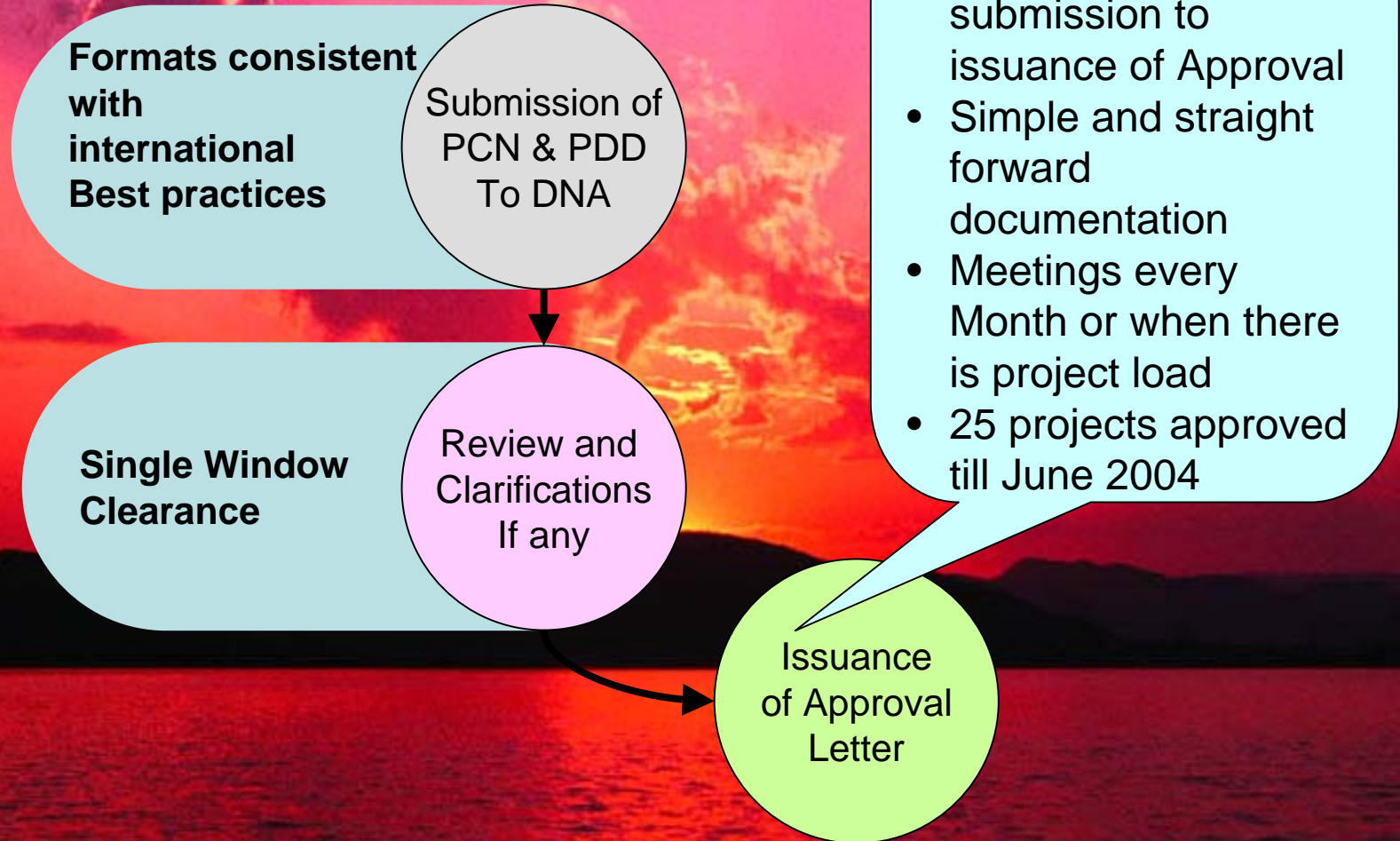
Tasks and activities

- Review of studies on national and sectoral CDM potential
- Modelling scenarios of international demand for GHG offsets
- Recommendations on institutional, legal, financial, and regulatory issues
- Pipeline of potential projects and methodological guidelines

Emphasis on capacity building and project development



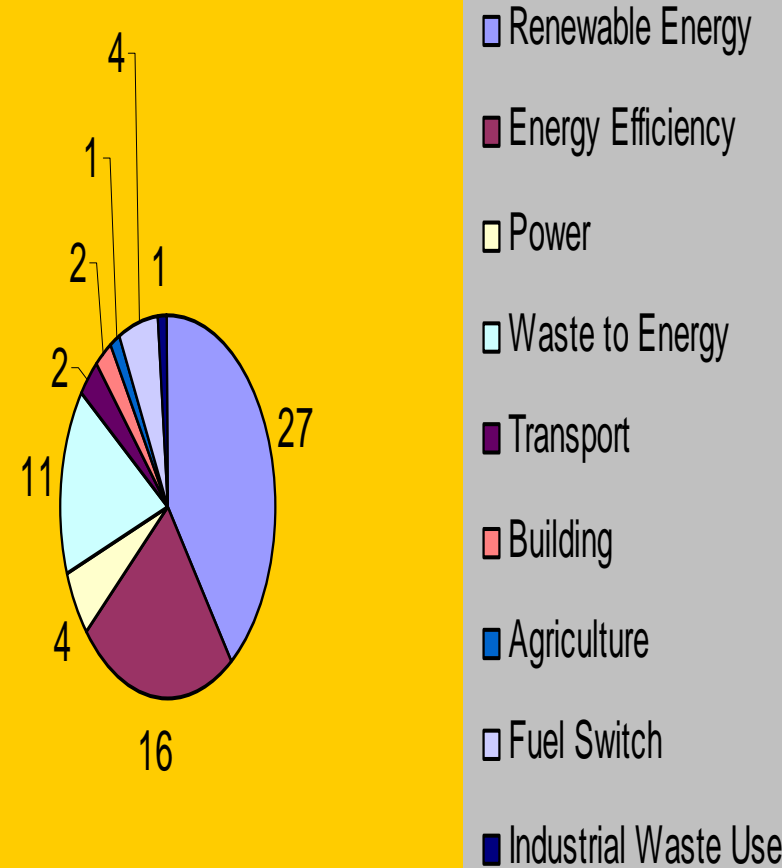
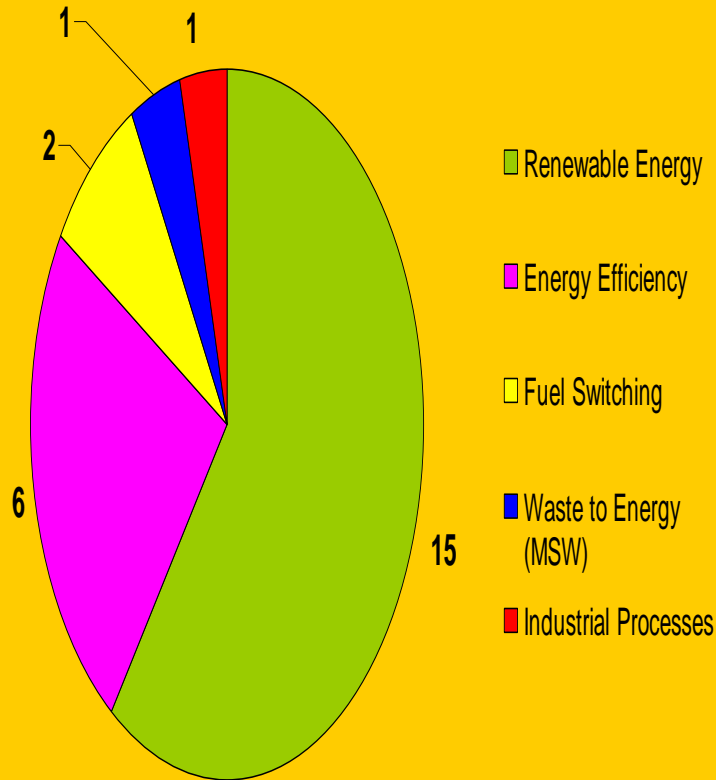
Host Country Approval



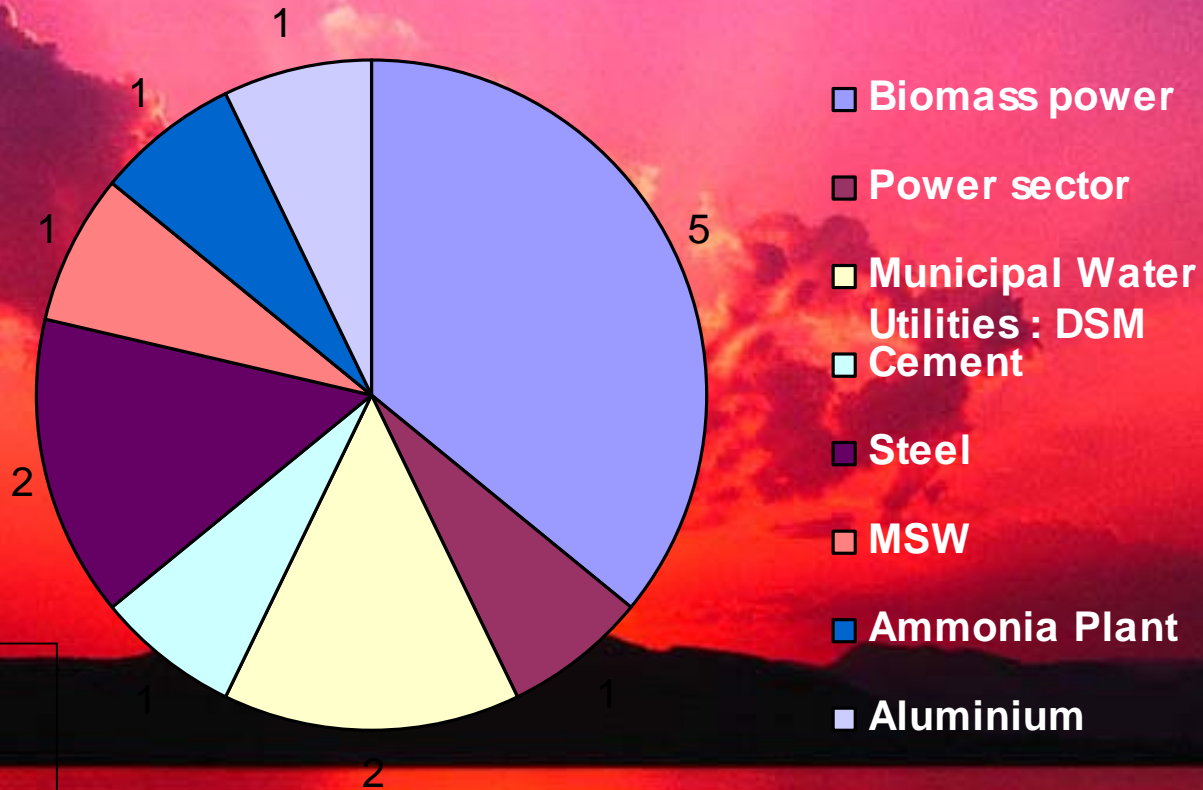
Indian update on CDM

DNA approved projects : 25 Nos.

NSS Call for PINs: 68 Nos.



New methodologies submitted to CDM EB



Approved : 4*

Rejected : 4

Withdrawn : 1

Pending : 5

* 2 with modifications



Indian CDM Project development

PDD development

- **Largely consultant driven**
- **Different service packages**
(full fee, success fee, donors fund, buyers fund, loan facility, in-house)
- **RE, EE in industries & hotels, Power sector**
- **All KP gases except SF6**
- **Enhanced corporate participation**
- **Mostly unilateral CDM**

NSS Survey results :

- **25 PDD consultants involved in at least 1 PDD**
- **46 PDDs from 8 consultants (1.7 Mn CERs/yr)**
- **40 PDDs by one consultant**
- **One PDD on HFC to yield close to one Mn CER/yr**
- **25 PDDs under donor programme**
- **150-200 PDDs being developed**

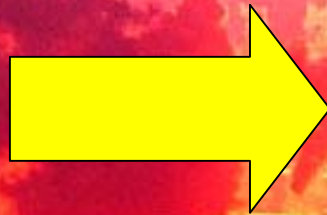
Project selection criteria

Eligibility level

CDM Executive Board

- The Supreme court

(SSCP, PDD, DOE, New Methodologies, DNA)



National & Local level

Social

(Employment : quality, livelihood of poor, participatory, energy access, non-depriving, local awareness/capacity/skills etc.,)

Economic

(Employment : quantity, income, local economy , energy enhancement, net increase in foreign exchange etc.,)

Environmental

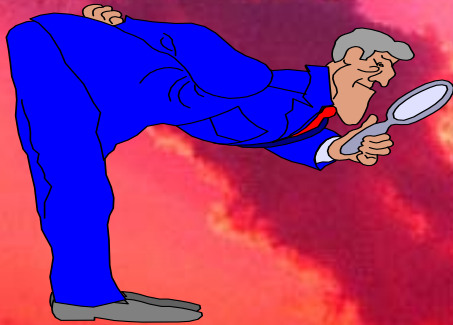
(Net +ve impacts, maintain status of natural resources & agricultural activity etc.,)

Technology

(Technology status, TT, Replicability, Skill levels etc.,)

Project selection criteria

Buyers perspective



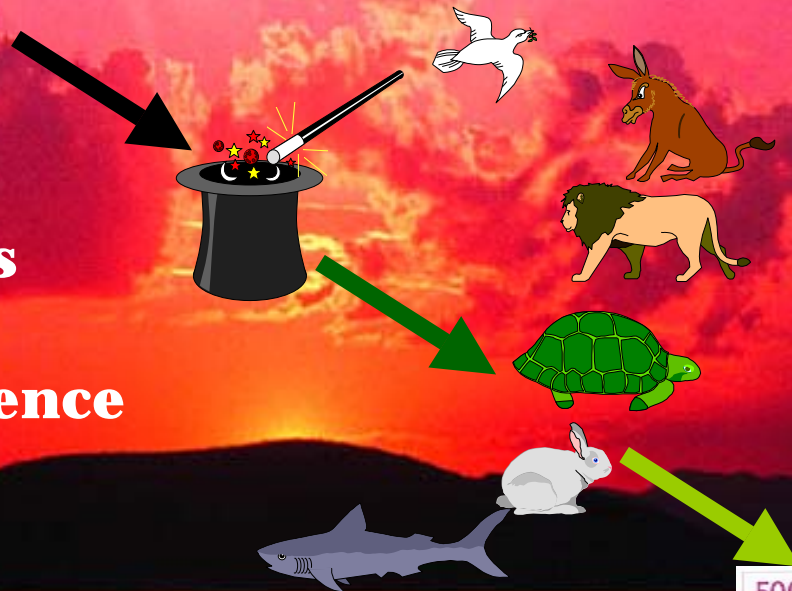
Tender norms

Sector preference

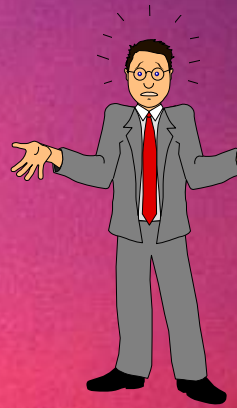
Fixed price

100% CER ownership

Quality CERs ? (WWF-Gold Standards)



Project selection criteria



Sellers wish list !

Reasonable price

Better price

Higher price

Advance payments (risky?)

Project participation

Debt facilitation

Bundling ?

Technology Transfer

IMPORTANT LOOKOUT

Simplified National &

International procedures

DREAMING ALOUD



Project selection criteria

Eligibility level

Buyers perspective

National & Local level

Sellers wish list

Sector level

Statewise CDM project pipeline ?

Analysing existing project pipeline

Likelihood of implementation

High abatement potential at LAC

Similar projects

Replicability (Risky?)

Technical & financial competence

O&M, R&S capabilities

Local skills

Indigenous technology levels

Transfer of technology



CDM sectoral List : Indian scenario

Power Sector (EA 2003)

Renewable Energy (EA 2003)

Waste to Energy (SC order)

Energy Efficiency (ECA 2000)

Fuel Switching (picking-up)

Transport (no takers/complex)

LULUCF (Recent addition: COP9)

HFCs (large volume and cheap, SD ?)

Agriculture (Unclear)

CDM and Rural electrification

Destination : India

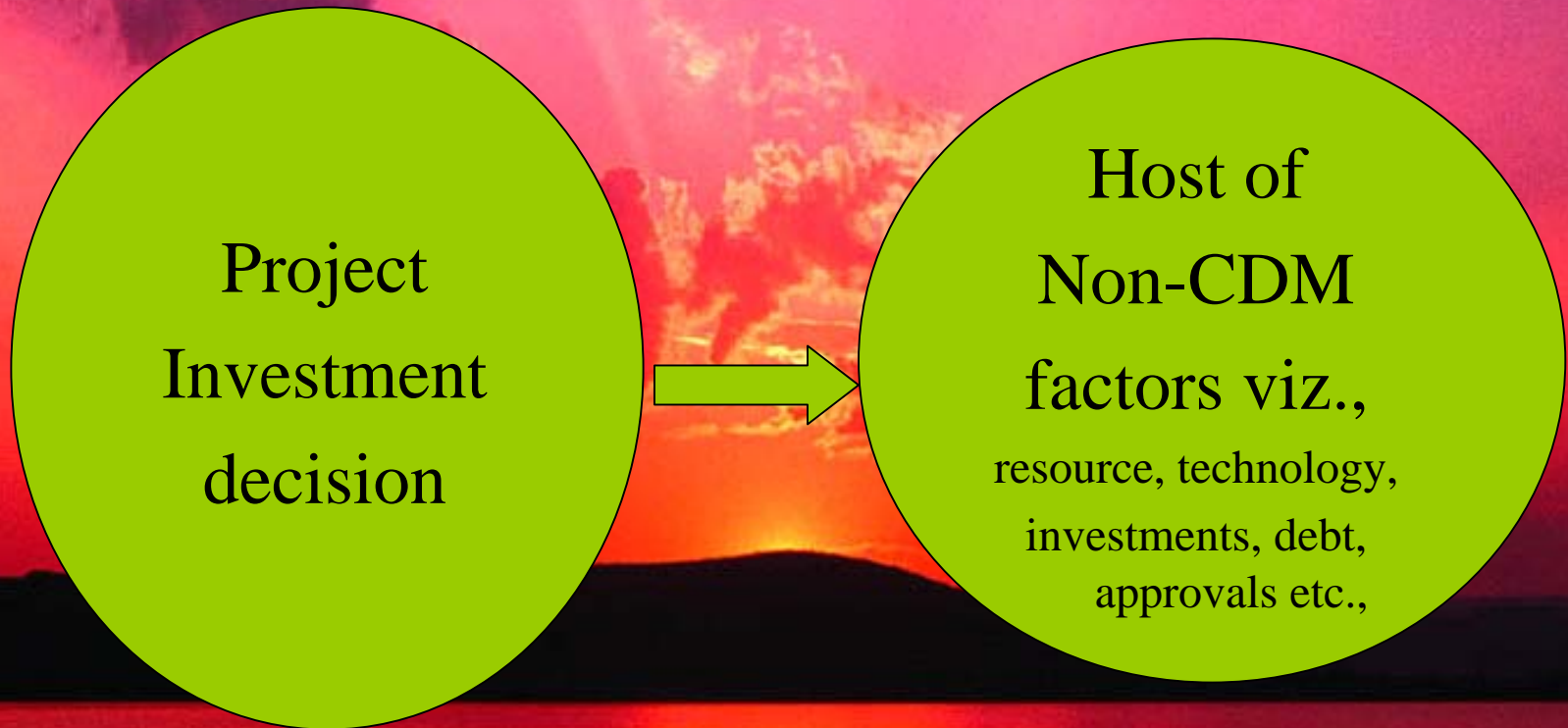
Rural electrification through Renewables

- ◆ 18000 villages by 2012 (balance 52000 through grid)
- ◆ Village Electrification Programme (VEP) by MNES,
- ◆ Budget allocation of 756 Million USD (2012)
- ◆ SPV, Biomass, Mini Hydro, Wind battery chargers
- ◆ Community development oriented VEP
- ◆ Involvement of power utilities in rural electrification
- ◆ CDMability of such projects ?

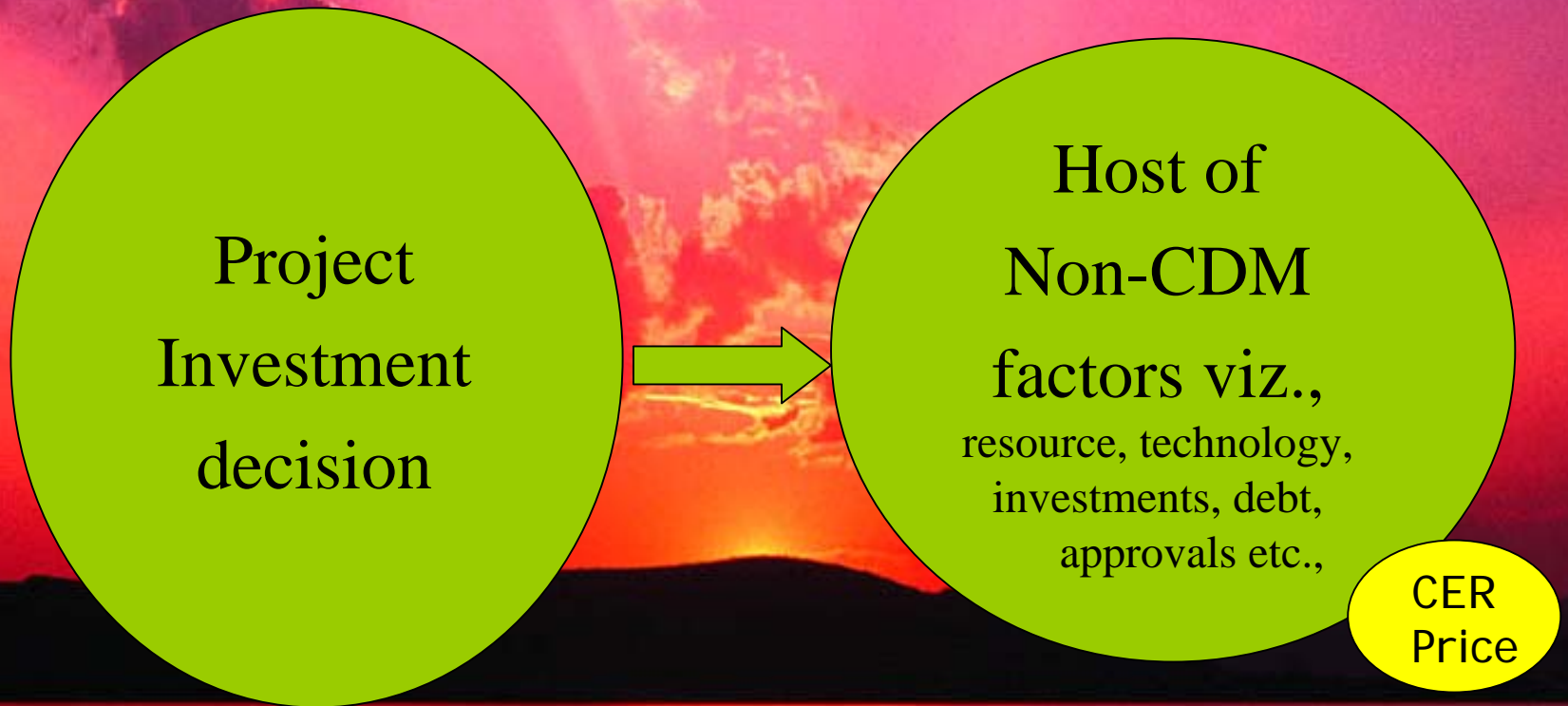


Concerns in CDM

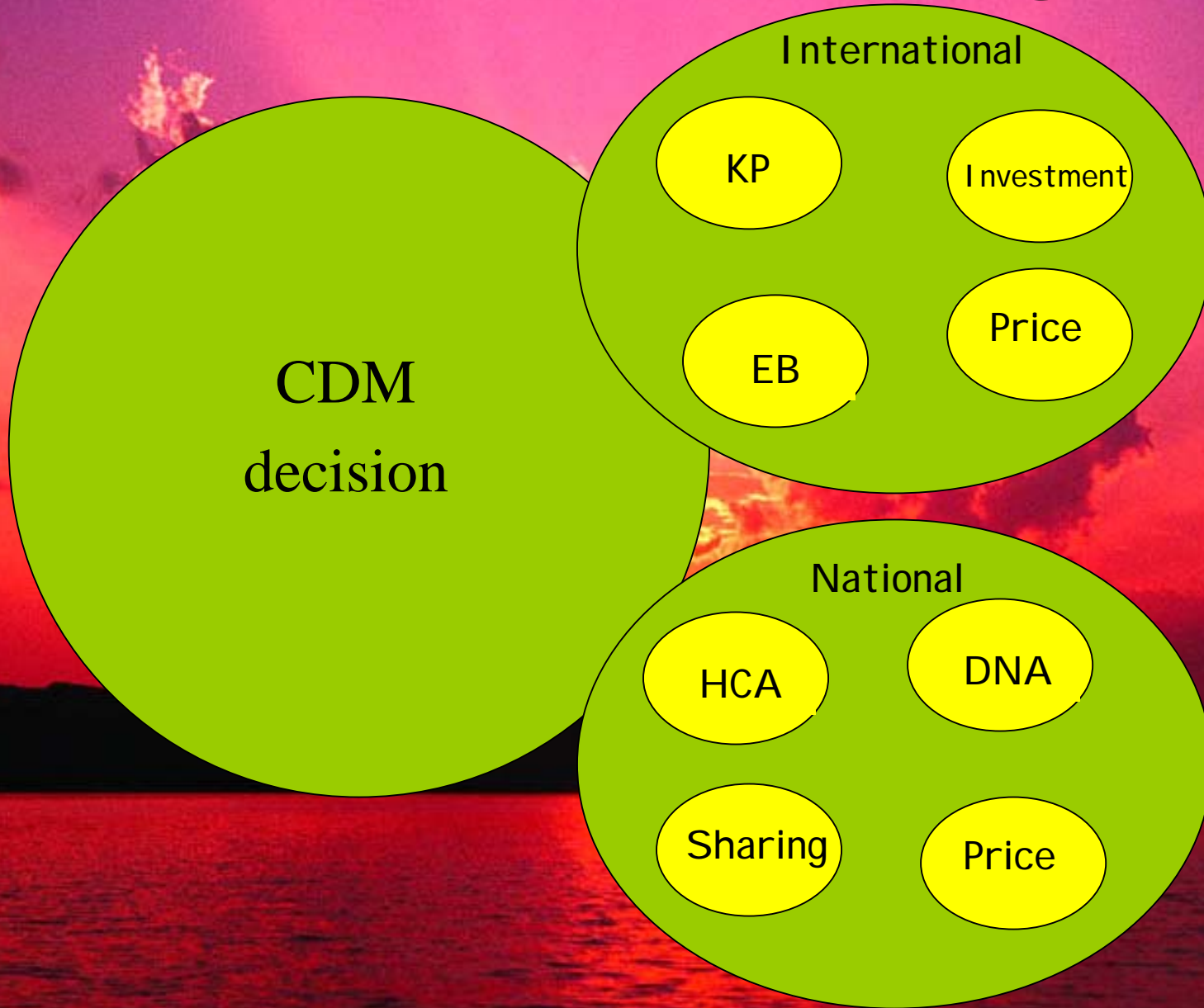
Investment Influencing factors



Investment Influencing factors



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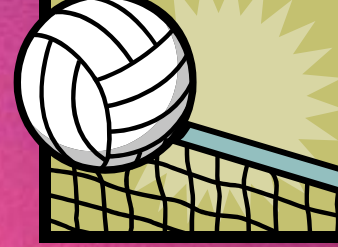


NSS launch – feedback

- No prioritization of sectors
- No additional SD criteria
- DNA – need of the hour
- Capacity enhancement of key stakeholders
(Private sector, FIs, insurance, regulators, industry associations, policy makers etc.,)
- Legal status, sharing, taxing of CERs
- Regulatory concerns : additionality



PDD developers' concerns



- **Limited access to authentic data for BL development – DNA to facilitate the same**
- **Difficulties in convincing promoters**
- **Time consuming approval process at CDM EB**
- **Lack of clarity on additionality**
- **Frequently changing M&P**
- **Need for a national pool to promote SSC, unilateral projects etc.,**
- **Low price and less access to CDM finance**
- **National level CDM project development fund**

SSC : Barriers /Challenges

- **High transaction cost**
- **Difficult M & P (e.g monitoring)**
- **Additionality**
- **Lack of verifiable data / references**
/ confidential data (financial)
- **Lack of plausible BL scenarios**
- **Sustainable Development components**
- **Lack of bundling cases & institutions**
- **Unilateral projects ?**
- **Financing / Risk mitigation options (e.g non-delivery)**



SSC barriers : Mitigation

- **Bundling & same DOE (waiver of 2 % AF)**
- **Sample monitoring methods (standards)**
- **Standard list of additional SSC projects**
- **Institutions to develop CDM data banks**
- **To follow approved BL scenarios**
- **Local SD aspects (economical benefits > social or vice versa)**
- **Manufacturers / FIs as bundlers**
- **CDM EB should decide quickly on UL CDM**
- **Involving Insurance Cos (sell part CERs ?)**



Features of a successful PDD

- **Addressing local needs**
- **Involvement of local community**
- **Authenticity and consistency in facts and arguments**
- **Crisp PDD (avoid story telling !)**
- **Analyse all possible baseline scenarios**
- **Follow CDM EB guidance on additionality**
- **High level of clarity with the promoter**
- **Use CER revenues for local developmental activities**



Ongoing Donors programme Vs Sectors

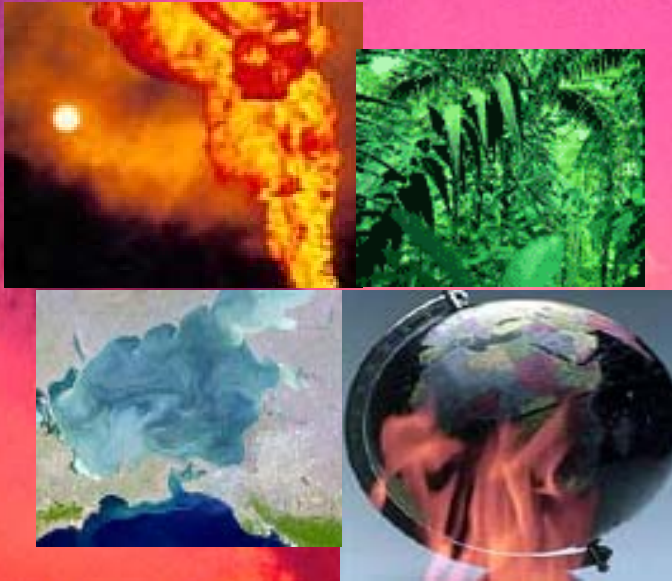
Sector	Donor Agency							Under call for CDM tenders		
	GTZ India	Canada : Pembina	FCO, UK : Ecosec urities	Japan : NEDO	EU : IT Power, ECN	IDFC :PCF	Rabo India	CERUPT	SICLIP (Sweden)	Finland
Renewable Energy										
<i>Wind Power</i>										
<i>Small Hydro</i>										
<i>Biomass</i>										
<i>Co-generation</i>										
<i>Waste to Energy</i>										
<i>Solar</i>										
Energy Efficiency										
Fuel Switch										
Transport										
Coal Bed Methane										
Power Sector										

Enabling environment for CDM

- **National CDM Authority – Regulatory and promotional role**
- **Various legislations (energy and environment) - additionality**
- **Role of states in encouraging CDM - minimize conflicts and disincentives**
- **Entitlements of CERs**
- **Transaction costs**
- **Strengthening local operational entities, FIs, insurance sector**
- **Promotion of small and rural oriented projects**
- **Synergising bilateral & multilateral capacity building efforts in India (awareness, development, and facilitation)**

TERI's initiatives in CDM

- ❁ **National Strategy Study : The World Bank**
- ❁ **Country baseline for Ministry of Non-Conventional Energy Sources (MNES) (report posted for comments :<http://mnes.nic.in>)**
- ❁ **Developing CDM projects in power sector for Ministry of Power**
- ❁ **Developing CDM projects for private sector**
- ❁ **Capacity building (brain storming, training programme, workshops)**



**Thanks for all your
attention !**

contact details :

N Yuvaraj Dinesh Babu

TERI

Darbari Seth block

Habitat place

Lodhi road

New Delhi - 110 003

India

Ph : +91 11 2468 2100 Fax : +91 11 2468 2144

email : ydbabu@teri.res.in

website : www.teriin.org