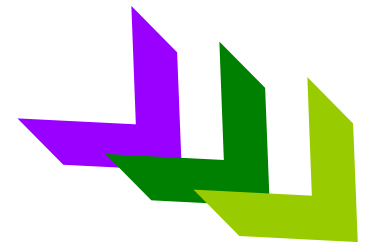


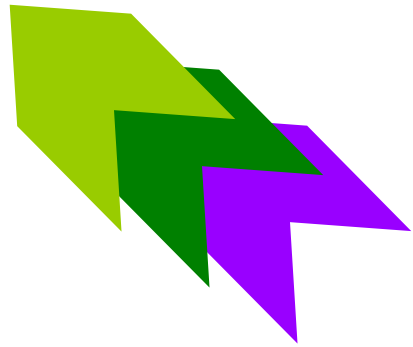
Forestry's Role in World Business Council for Sustainable Development Vision 2050

Bob Ewing

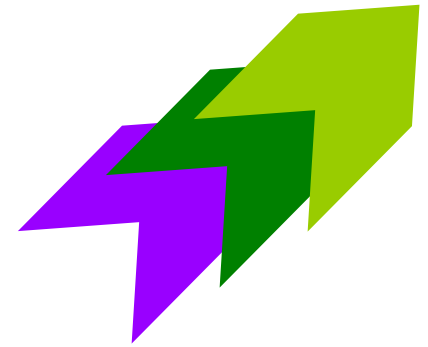
Western Forest Economists Meeting

May 5, 2009





Topics



- **World Business Council on Sustainable Development (WBCSD) Vision 2050**
- **Forests / Forestry Role**
- **Framework for Valuation**



Vision 2050 Companies



Infosys®

VOLKSWAGEN AG

 storebrand

GDF SUEZ

 Duke Energy®


大阪ガス

RioTinto


ALCOA

 Weyerhaeuser

GRUPO
NUEVA

 Fortum


BOEING®

accenture

P&G

 Eskom

 GRUPPOFALCK

e-on

 Holcim


ArcelorMittal


TEPCO

 EVONIK
INDUSTRIES

SONY

syngenta

TOYOTA


umicore

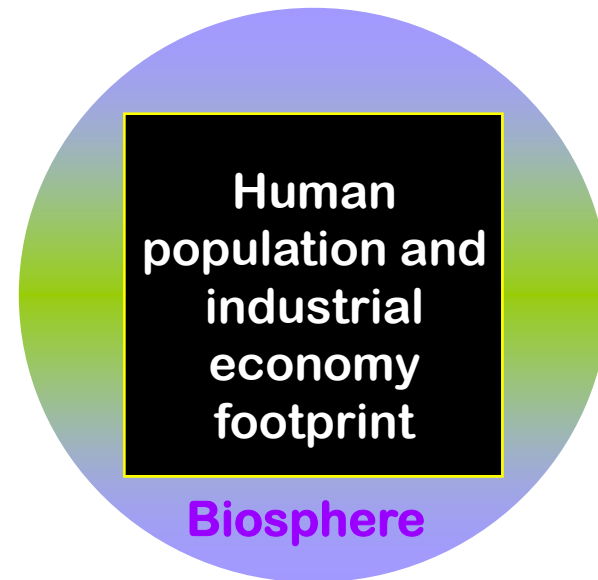
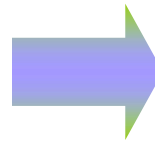
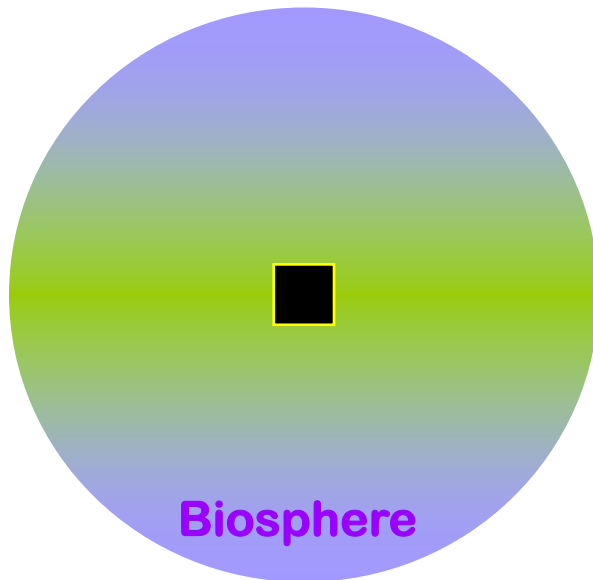
PRICEWATERHOUSECOOPERS 

Empty World to Full World

Population

Energy

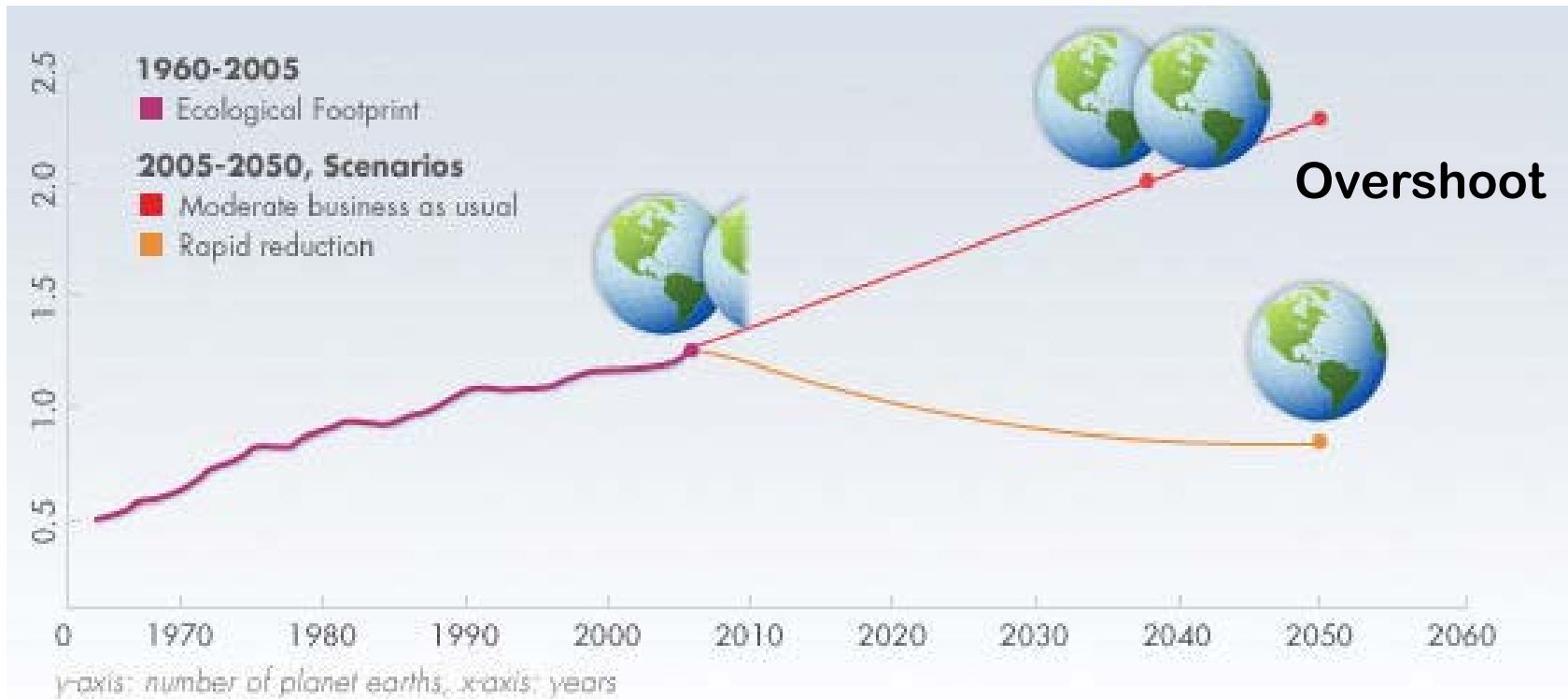
Economics



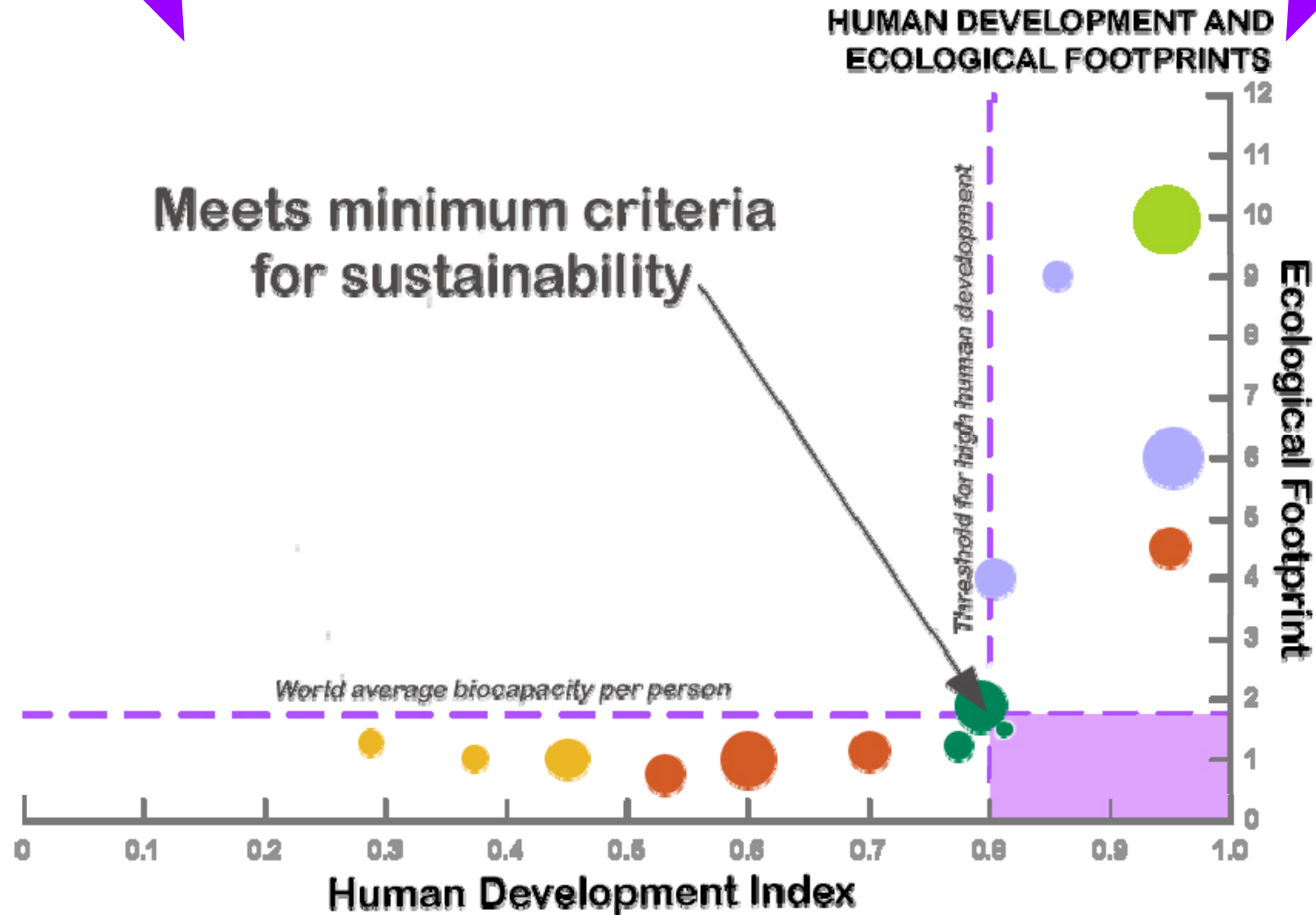
Climate

Environment

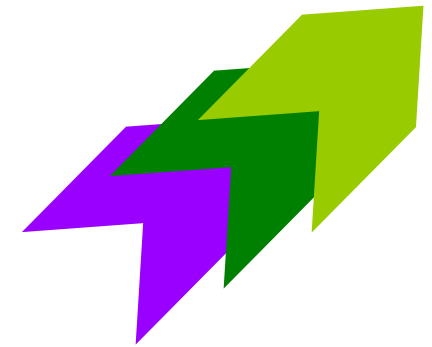
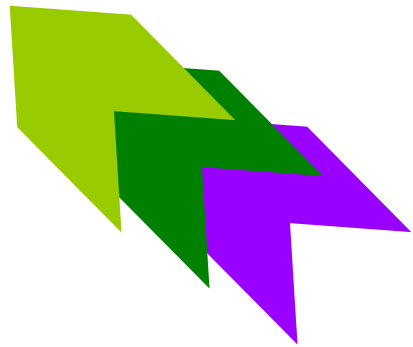
Ecological Footprint



Consumption, Biocapacity and Human Development



2050 Process



Vision Elements

Resources,
Energy and
Environment



Governance



People and
Values



Economy



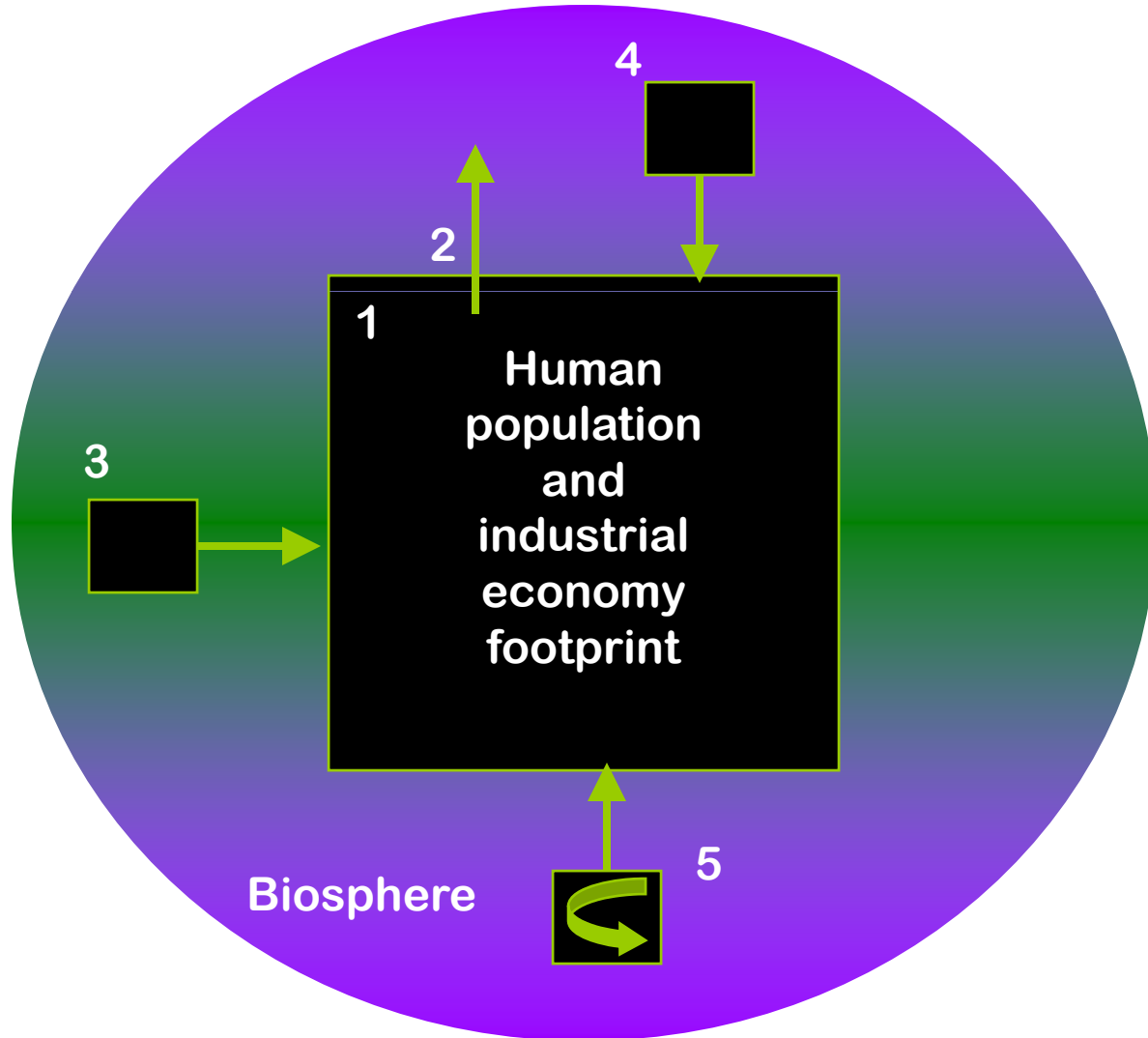
Pathways

Low (carbon) footprint
 New energy mix
 Ecosystem services and capacity
 Life-cycle and resources management
 Global governance
 New standards and measures
 Incentives mandates and policies
 Eco-affluence
 Human well-being
 All stakeholders
 Inclusive economy
 Green economy
 Sound financial system

Solution Spaces

Water and
ecosystem services
 ↔
 Resource
management
 ↔
 Systems solutions
 ↔
 Human well-being
 ↔
 Financial
frameworks
 ↔
 Radical business
change

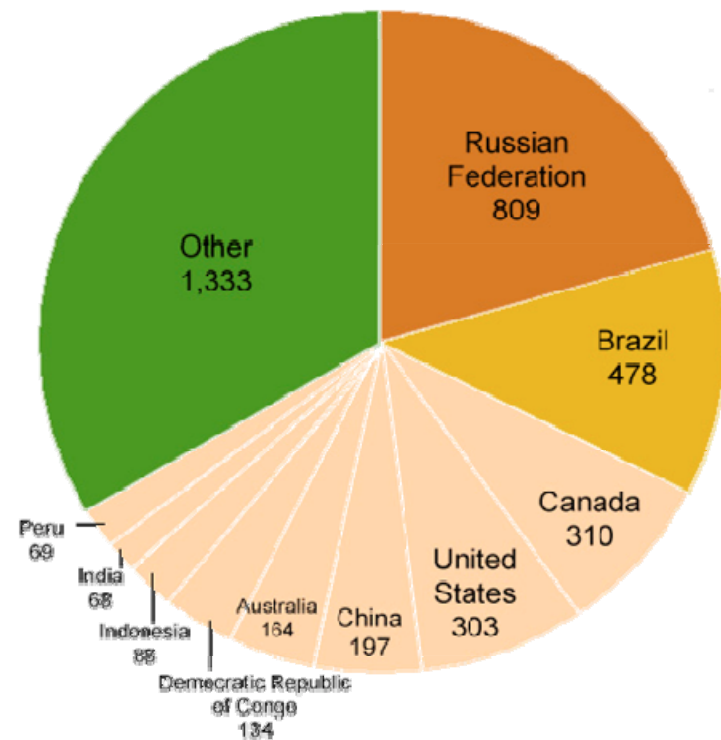
Ecosystem Services



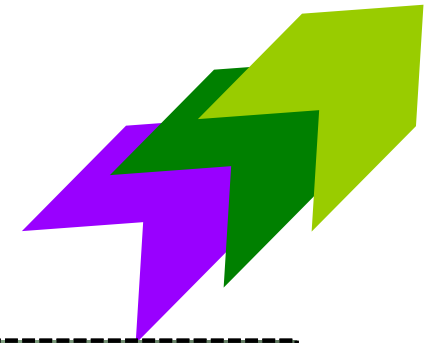
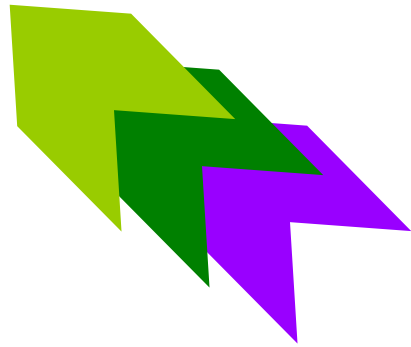
Forests / Forestry Contributions

- **Forests comprise 30% of world land area**
 - 84% publicly owned
- **Forest area has declined by 225 million hectares since 1980 – contributing 17% of global CO₂**

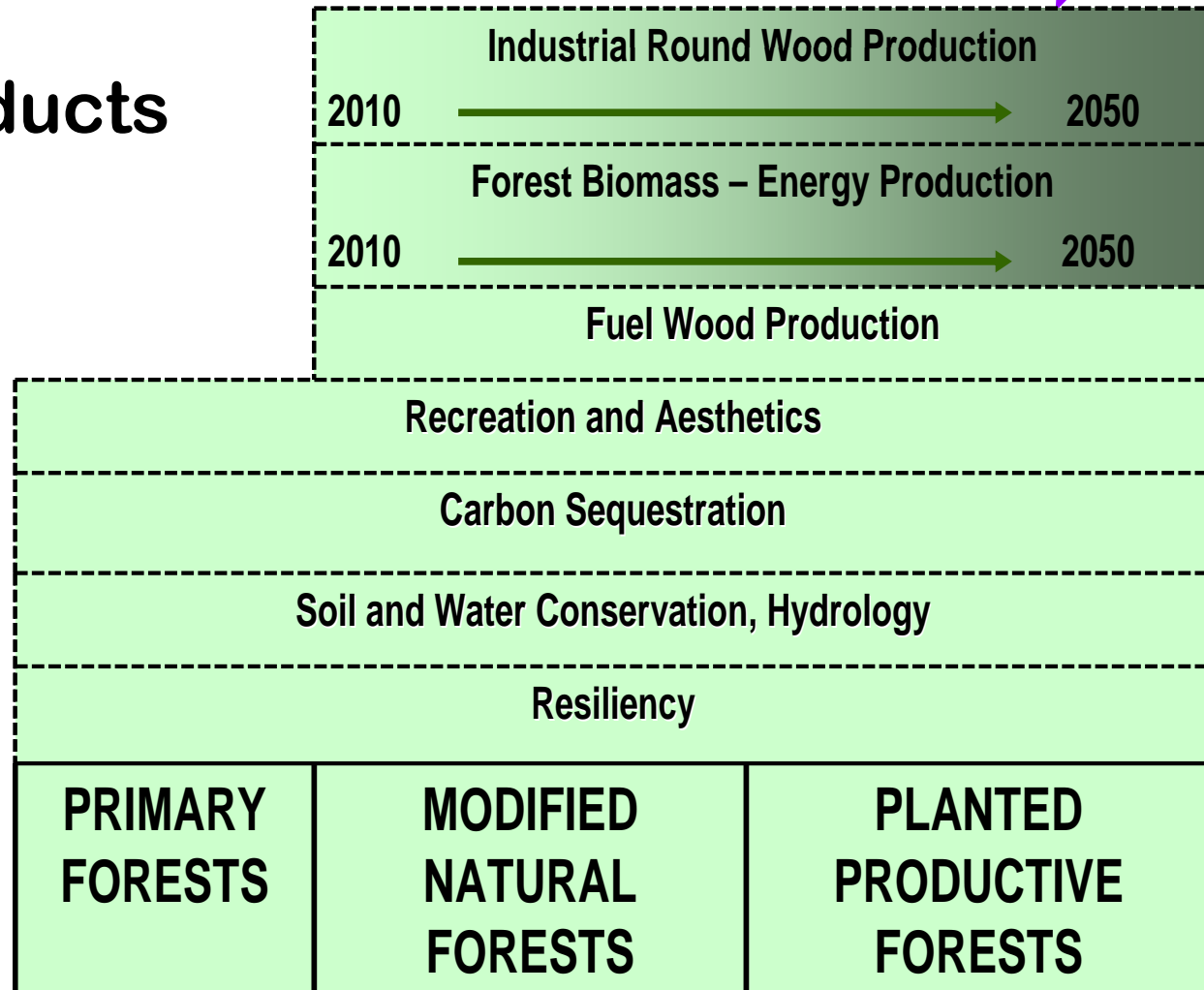
Forest Area
(million hectares)



Forests / Forestry Contributions



Forest Products & Services

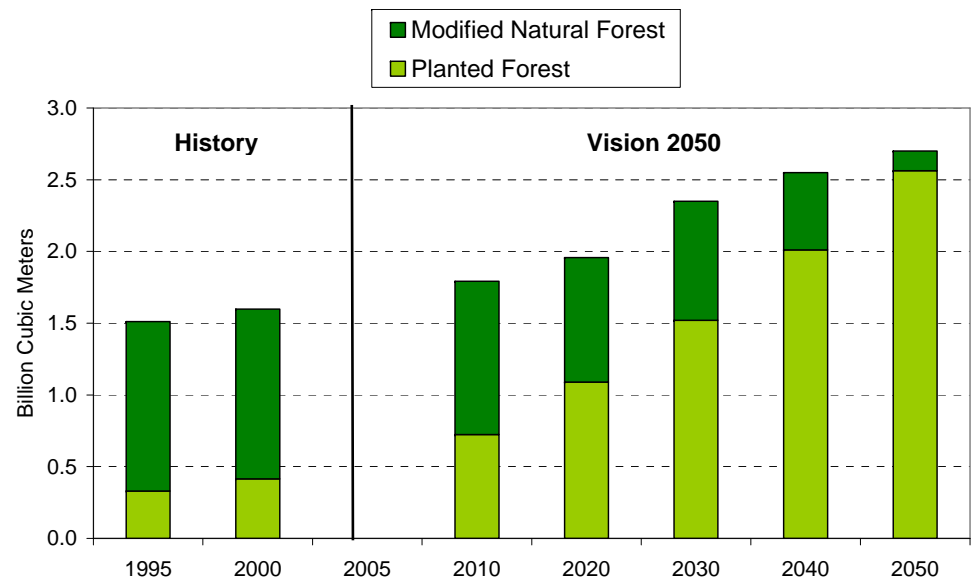


Forests / Forestry Contributions

Planted Productive Forests

- Shift production from modified natural forests to planted forests by:
 - Expanding planted forest area by ~70 million hectares
 - Increasing management intensity to double planted forest yields by 2050

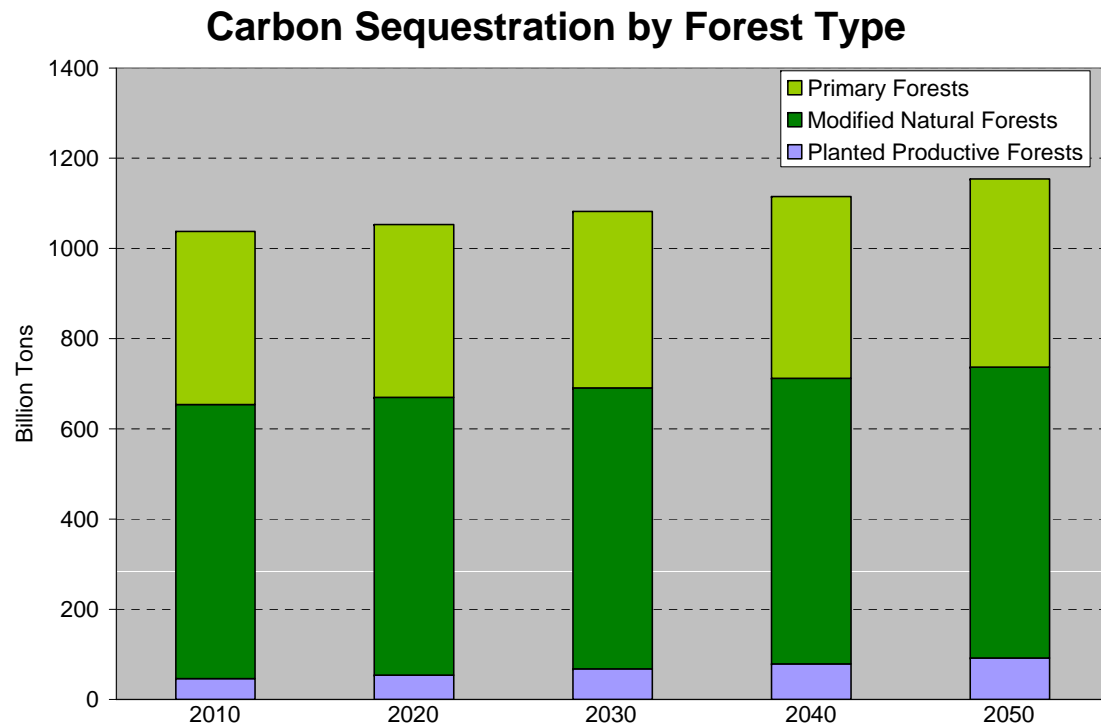
Industrial Roundwood Harvest by Forest Type

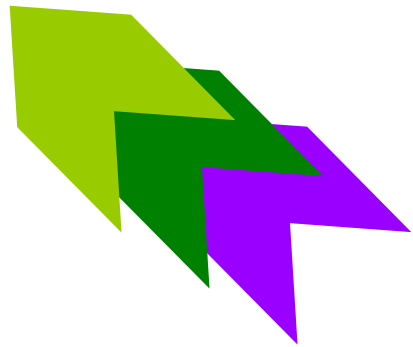


Forests / Forestry Contributions

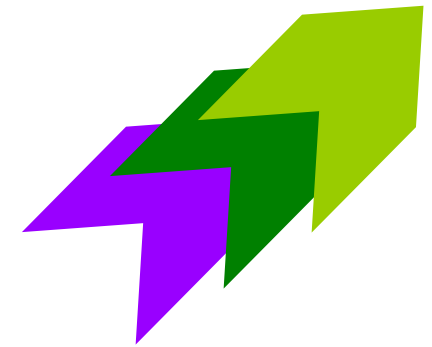
Forest carbon sequestration

- **Forests can fix 1.1 trillion tons of carbon**
 - **Avoided deforestation**
 - **Restoring degraded areas**
 - **Managing for carbon**





Next Steps



- **2050 – Soft launch in October, 2009**

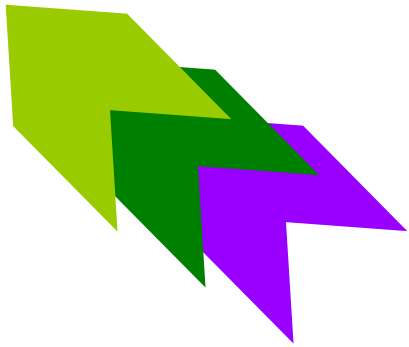


World Business Council for
Sustainable Development

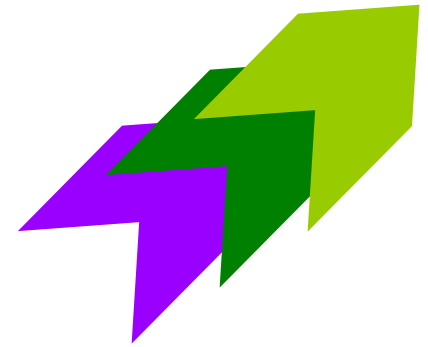
Mission Statement

Our mission is to provide business leadership as a catalyst for change toward sustainable development, and to support the business license to operate, innovate and grow in a world increasingly shaped by sustainable development issues

The World Business Council for Sustainable Development (WBCSD) is a CEO-led, global association of some 200 companies dealing exclusively with business and sustainable development



Ecological Footprint



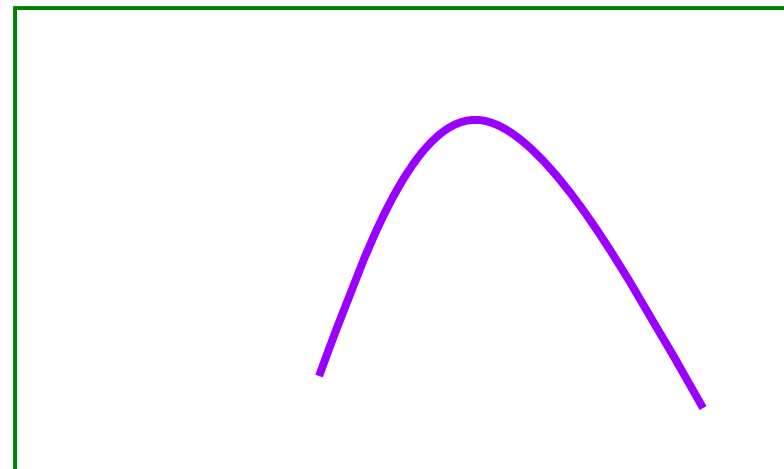
- **Natural capital accounting in biophysical units – global hectares**
- **Area of land and water required to produce resources**
- **$I = P \times A \times T$**
- **Complement to an economic perspective**

Traditional Capital Theory

- **Forest values are derived from product prices**
 - Rent as limiting factor of production
- **Discounted cash flows with interest**



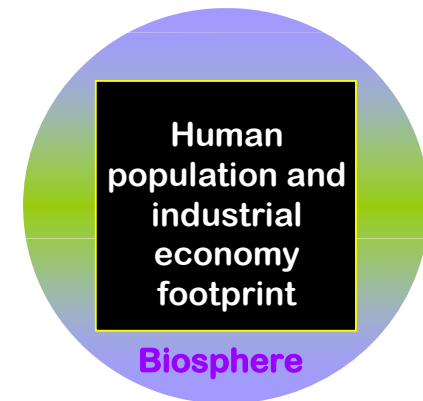
Net Present Value (NPV)



Stand Age

Environmental Economics

- Putting a price on nature – what are people willing to pay?
- Forming markets and clarifying property rights



	Price of CO ₂ (Dollars)
Afforestation	
Management	
Biofuels	



Ecological Economics



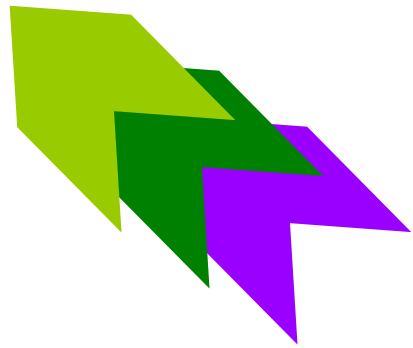
- **Operating an economy within ecological constraints**
- **Wealth is real and physical**
- **Laws of thermodynamics are primary**

Current Value

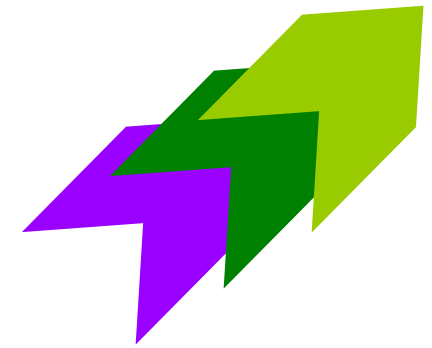
Protection / Management

Discounting

Uncertainty



Forests as Solutions



- Global “stresses” open the door for forestry
- Emergence of new clients and partners
- Monetizing products, services and “ecosystem states”
- What valuation methods are appropriate?

