

Policies, Institutions and Advocacy

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- **Setting**
- **Policy reforms**
- **Emerging development of compensation for environmental services from agroforestry systems**



G = Governance processes

- Land use rights
- Effective rewards for upland services

-capacity building
for INRM

L = Multifunctional landscapes

- Watershed functions, Biodiversity
- Dynamics of land use change
- Community institutions & social capital

F = Farmers' Land Management - Plot-level technologies

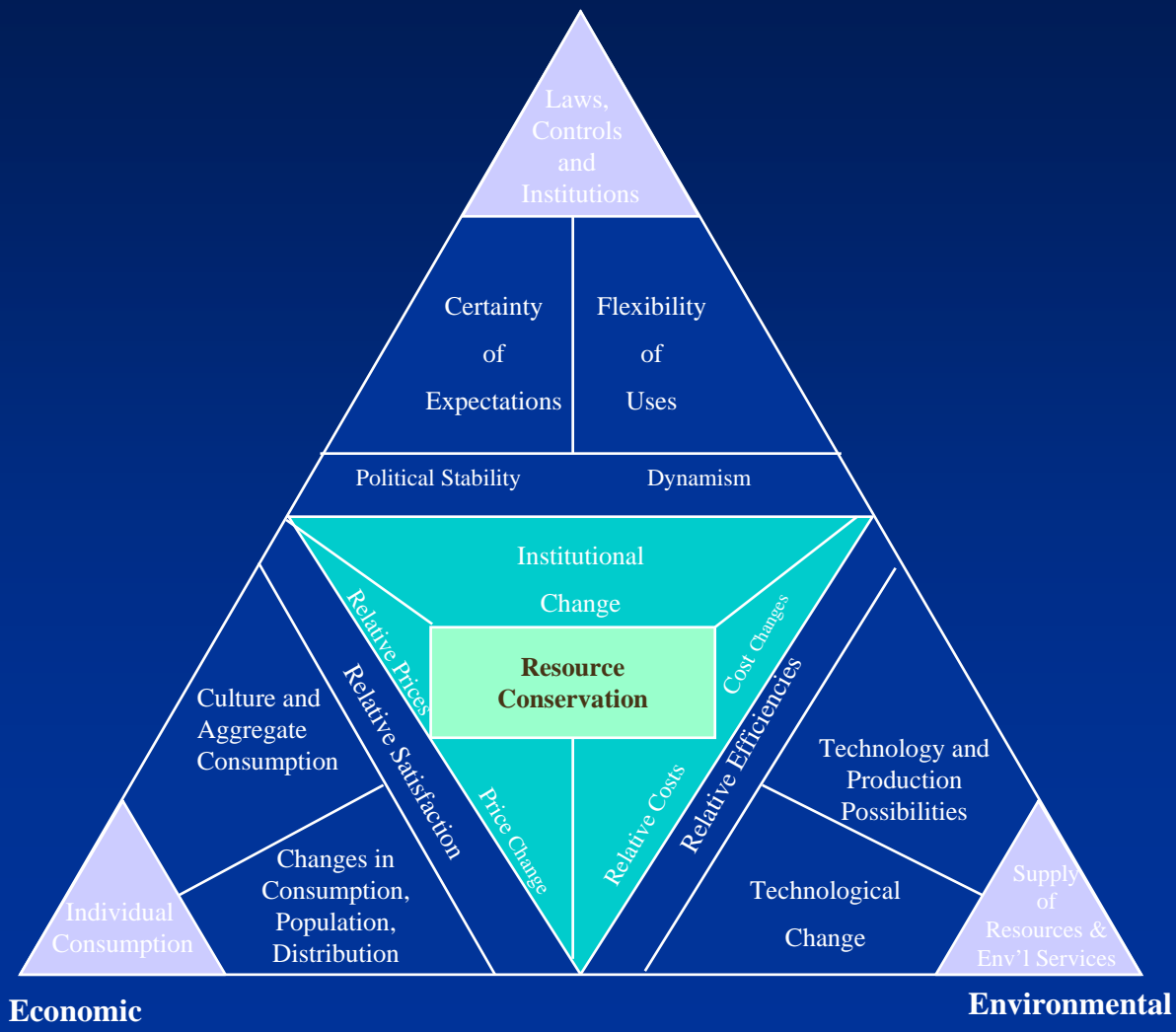
- Household decisions & extension
- Tradeoffs

T = Trees & Markets

- Tree options
- Planting material
- Markets

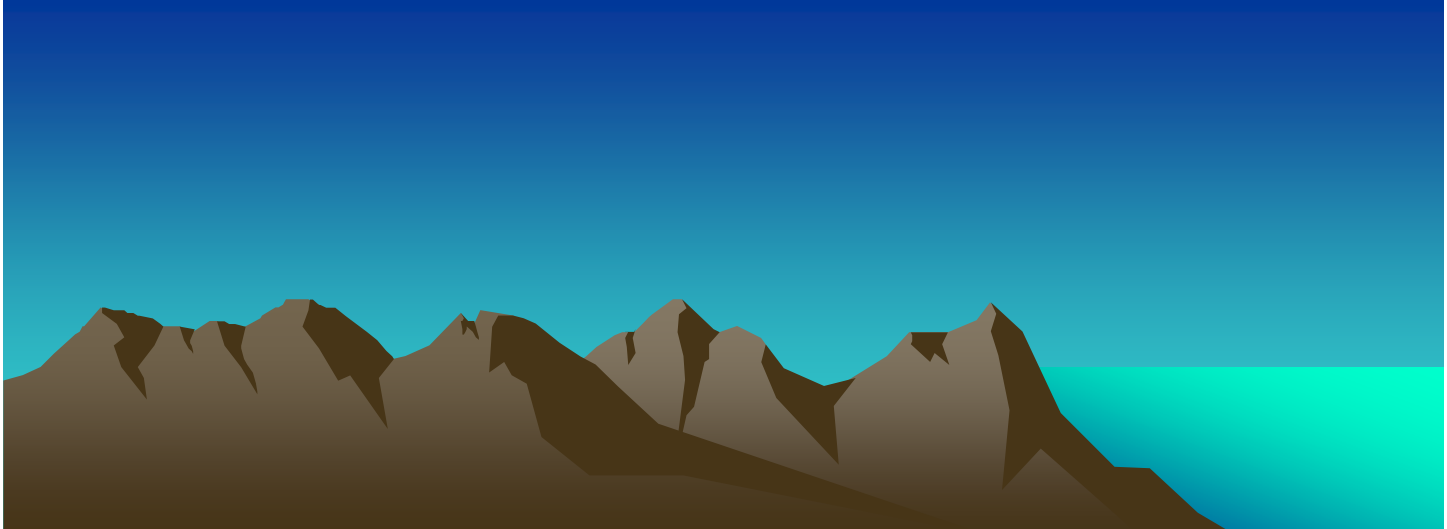
ICRAF SEA THEMES

Institutional

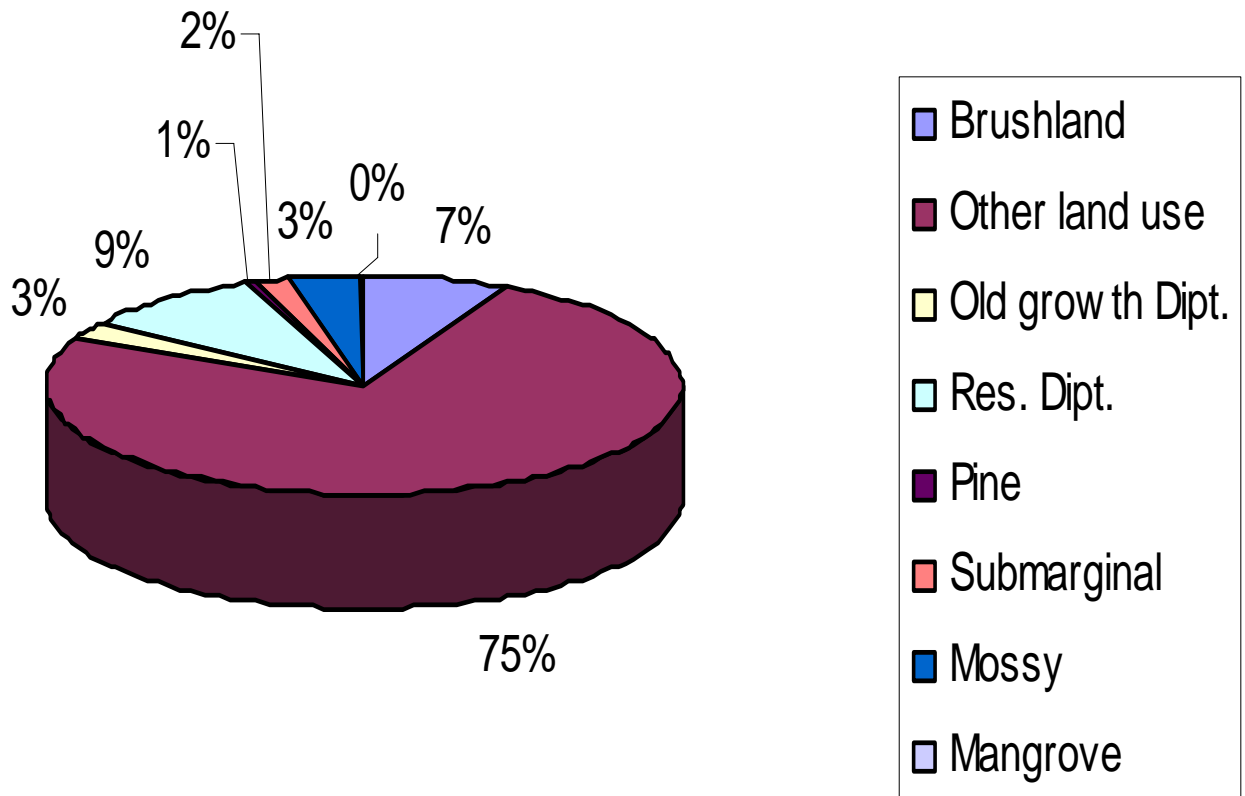


Economic

Environmental



Land use status - 1997



WHERE IS AGROFORESTRY?

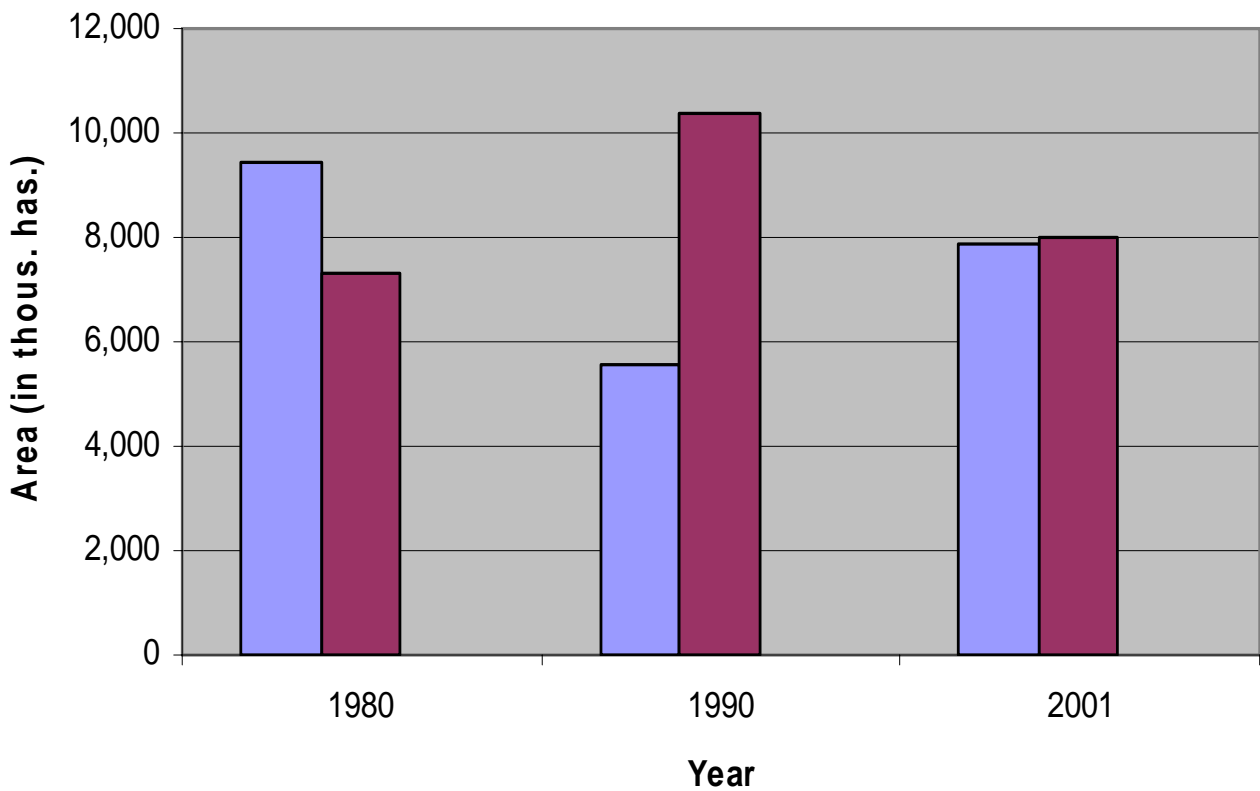
WHERE ARE THE STAKEHOLDERS?

*It is time to systematically generate information on
PEOPLE, AF practices,
& impacts (livelihood, natural resources & environment)*

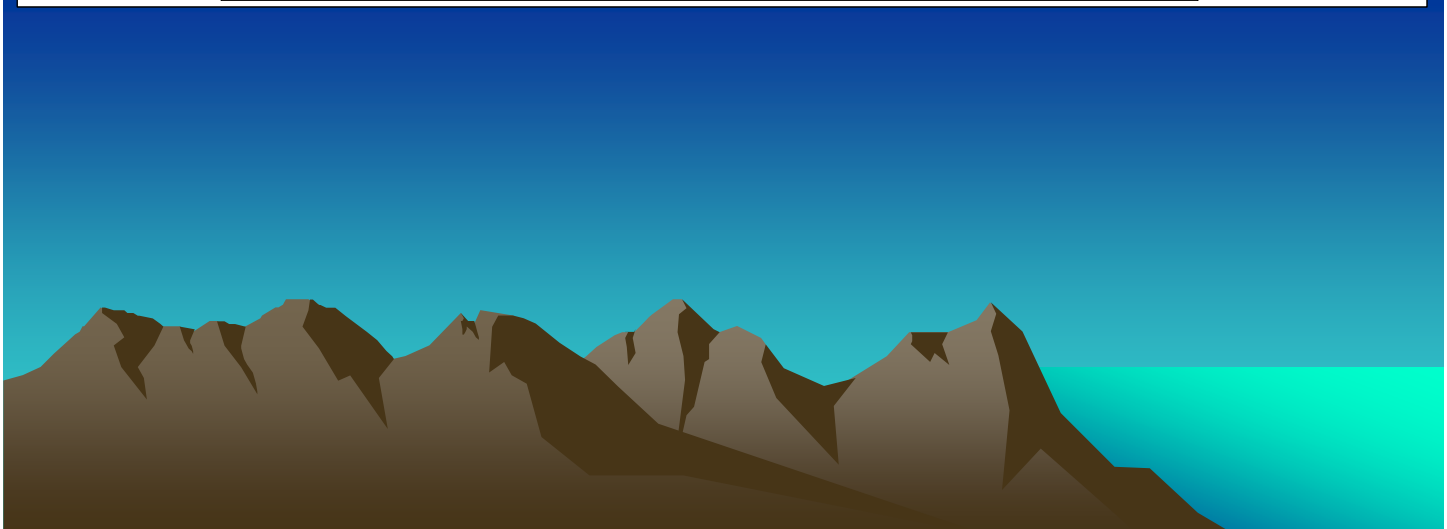


**OPEN ACCESS AREA:
*Declining, but still large***

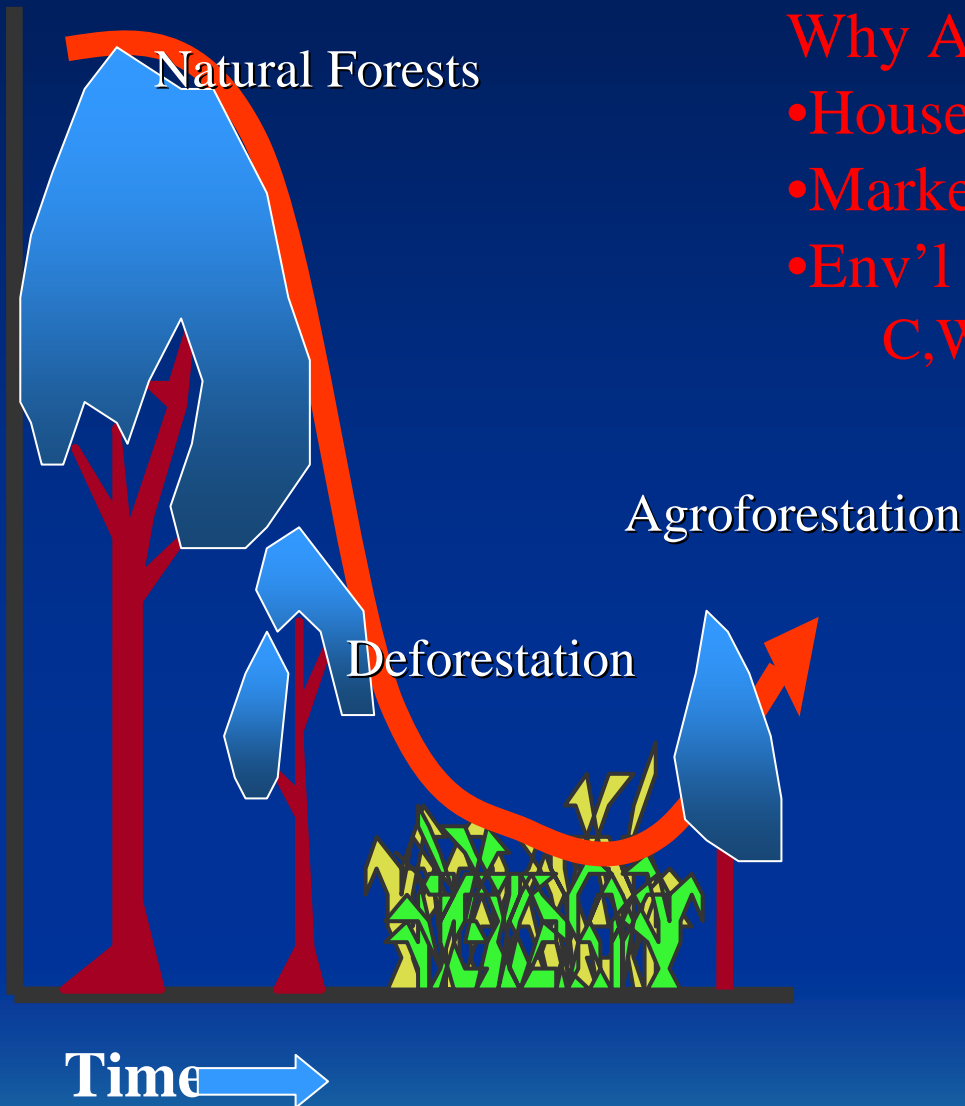
Forest Land Area by Type of Access



with various access rights/instruments de facto Open Access



Deforestation (ironically creates opportunities for smallholder tree farming ...)

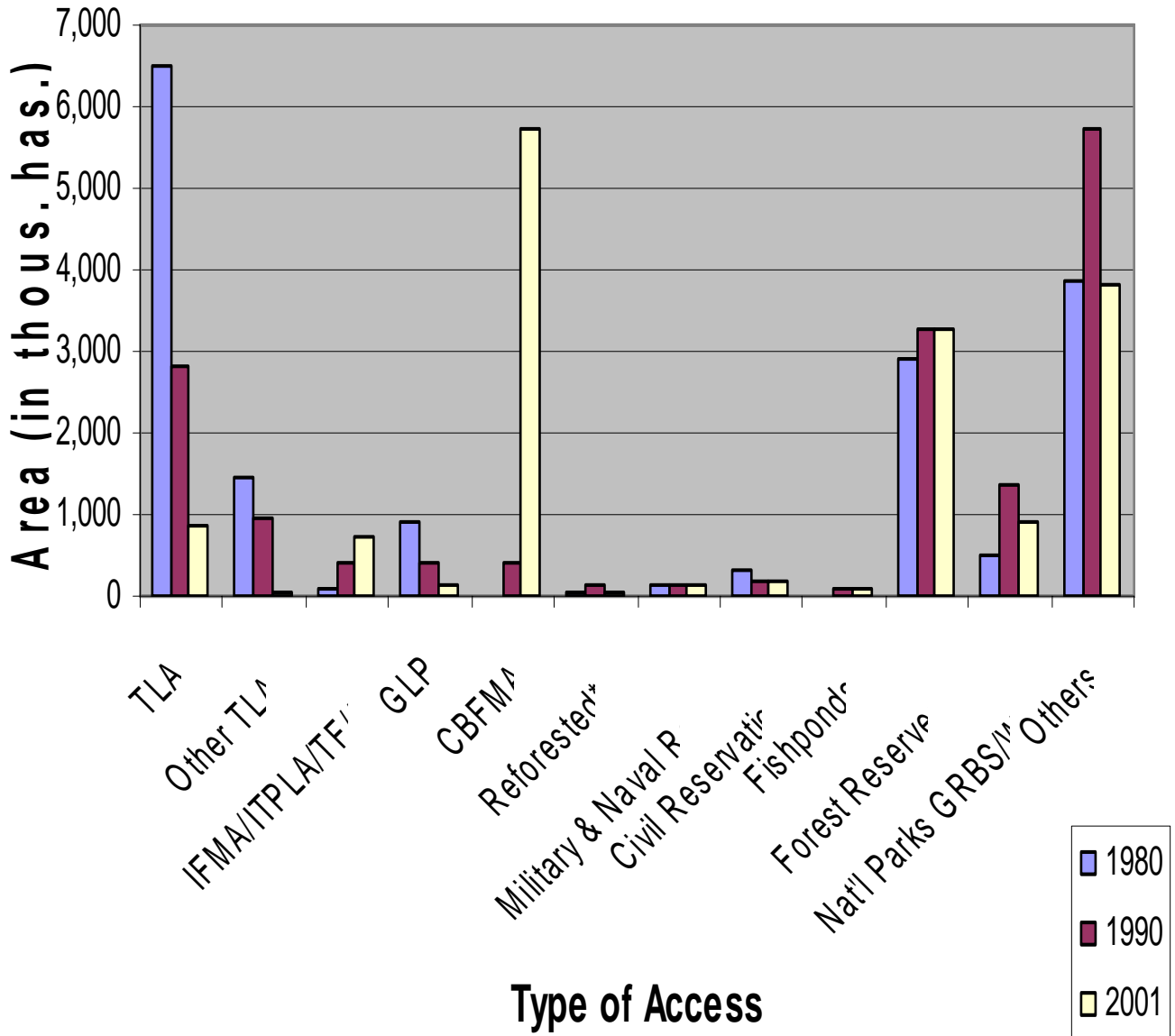


Why AF?

- Household needs
- Market demand
- Env'l services:
C,W,B,E

But smallholder agroforestry SYSTEMS have not evolved to a scale critical for livelihood and conservation purposes

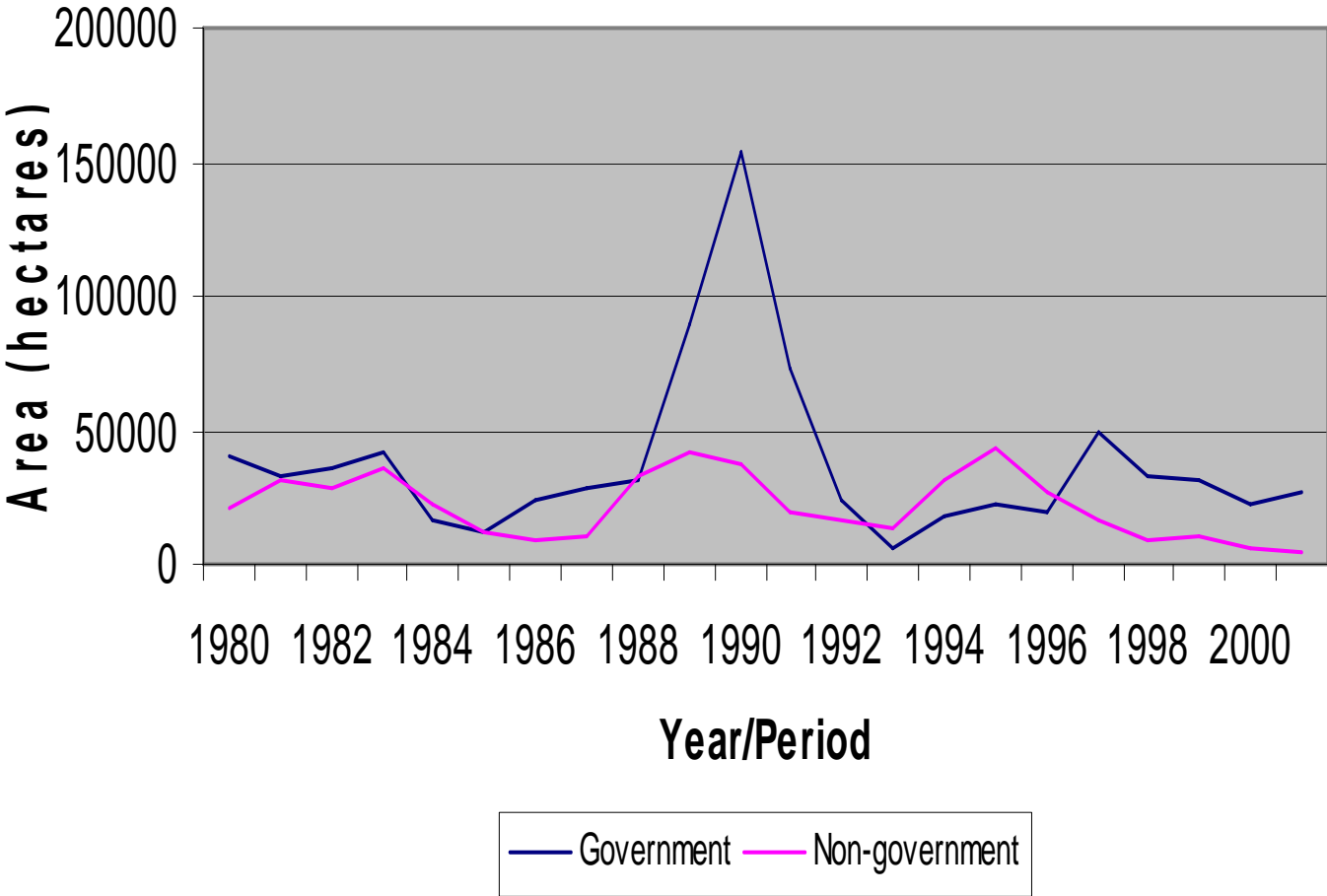
Forest land Area by Type of Access



WHAT ABOUT THE INDIGENOUS AF SYSTEMS?



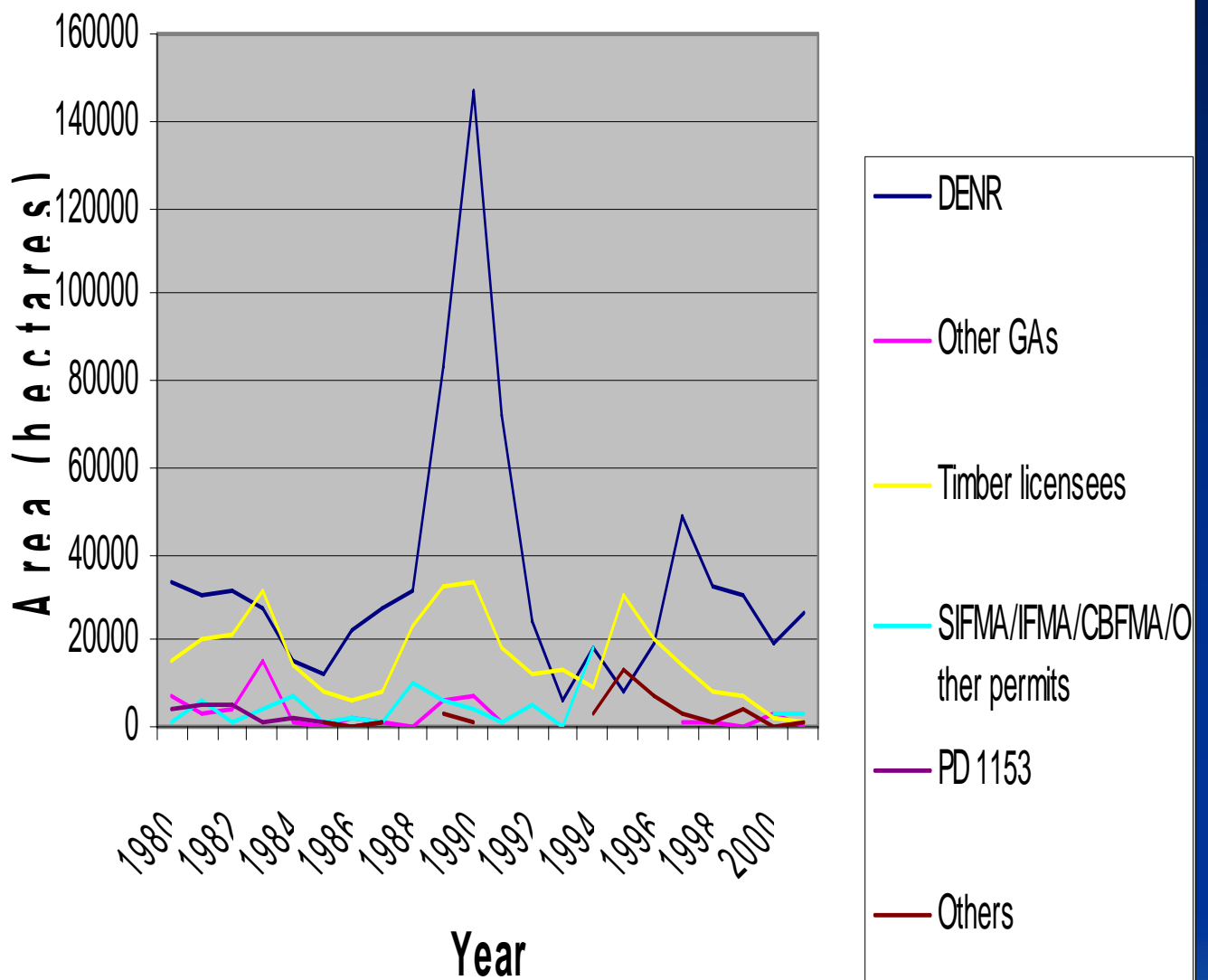
Area Reforested (CY 1980-2001)



MONOCULTURE SYSTEMS?



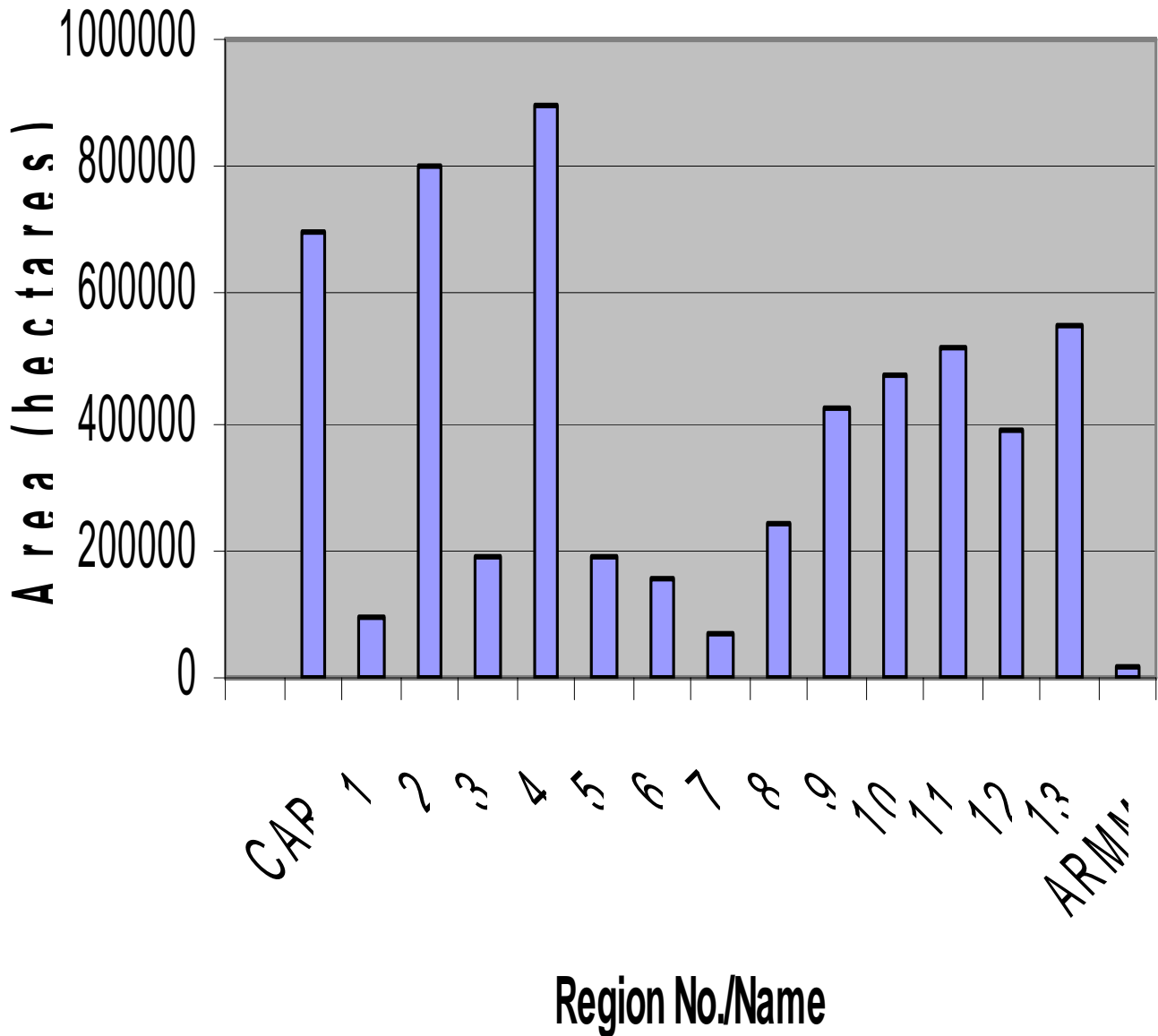
Area reforested by different sectors (CY 1980-2001)



Agroforestry?



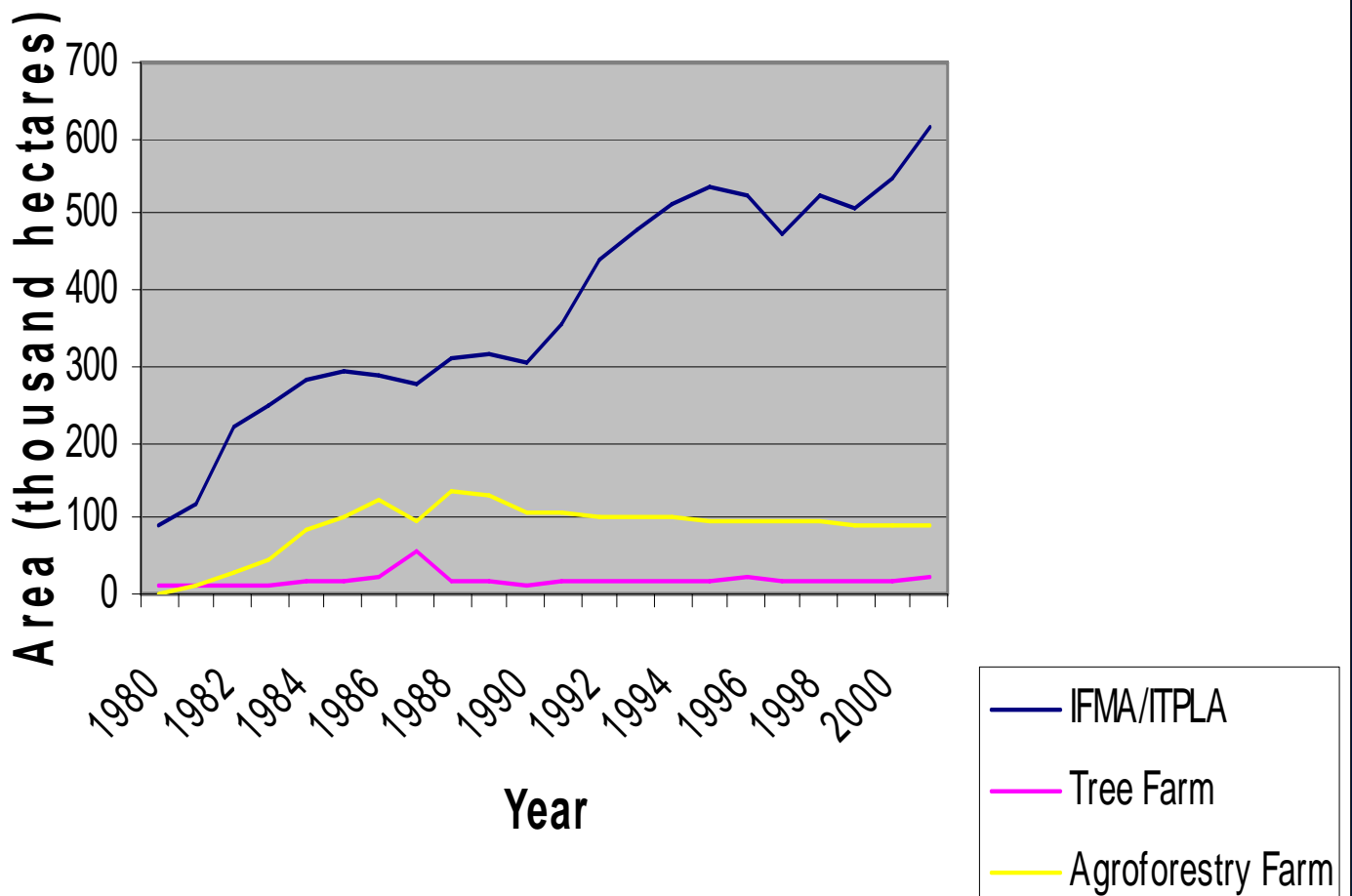
CBFMP Areas by Region (CY 2001)



CBFM = AGROFORESTRY?



Farm leases in terms of area (CY 1980-2001)



**DOES THIS REFLECT WHAT YOU OBSERVE
OF OUR LANDSCAPE?**

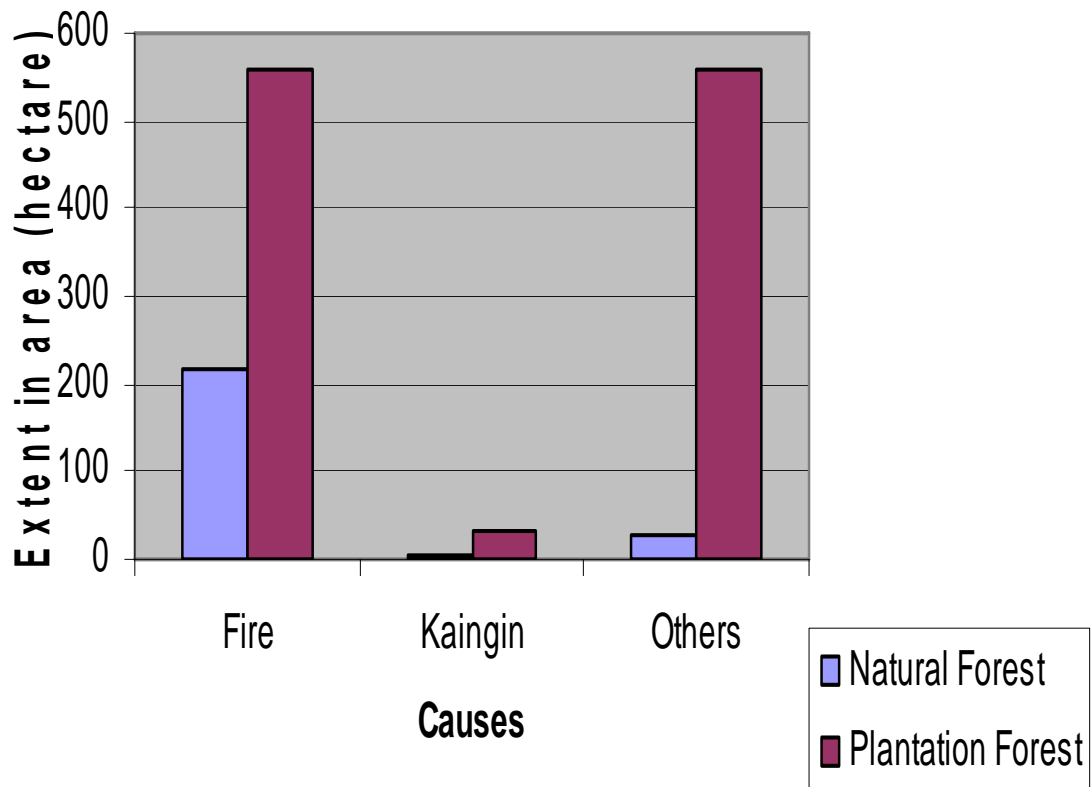


Watershed Forest Reserves (CY 2001)

Region	Number	Area (hectares)
CAR	6	113,009
Region 1	10	6,167
Region 2	5	119,261
Region 3	8	221,385
Region 4	35	107,400
Region 5	11	38,665
Region 6	9	131,777
Region 7	7	104,381
Region 8	9	30,599
Region 9	4	11,456
Region 10	4	114,970
Region 11	6	111,337
Region 12	2	169,272
Region 13	7	38,241
ARMM	2	182,354
Total	125	1,500,274

A SETTING FOR AGROFORESTRY

Forest Disturbance (CY 2001)



**MOST LIKELY AN UNDERESTIMATE
OF DISTURBANCE!!!**

Log Production by Species (CY 2001)

Common Name	Scientific Name	Volume (cu.m.)
Acacia	<i>Samanea saman</i>	2238
Almon	<i>Shorea almon</i>	6814
Apitong	<i>Dipterocarpus grandiflorus</i>	4171
Bagras	<i>Eucalyptus deglupta</i>	7311
Bagtikan	<i>Parashorea plicata</i>	7355
Binuang	<i>Octomeles sumatrana</i>	7425
Falcata	<i>Albizzia falcataria</i>	250663
Gubas	<i>Endospermum peltatum</i>	28742
Ipil-ipil	<i>Leucaena leucocephala</i>	2761
Loktob	<i>Duabanga moluccana</i>	2329
Mahogany	<i>Swietenia mahogani</i>	3259
Mangium	<i>Acacia mangium</i>	54372
Mayapis	<i>Shorea squamata</i>	15168
Nato	<i>Palaquium luzoniense</i>	292
Para rubber	<i>Hovea brasiliensis</i>	4074
Red lauan	<i>Shorea negrosensis</i>	12487
Tanguile	<i>Shorea polysperma</i>	5201
Toog	<i>Combretodendron quadrialatum</i>	8934
White lauan	<i>quadrialatum</i>	9027
Yakal	<i>Pentacme contorta</i>	2899
Yemane	<i>Shorea gisok</i>	52631
Others	<i>Gmelina arborea</i>	82737

Source: PFS (2001) based on Timber Licencees' reports

MISSING: nfp's food production, env'l services

Promotion of Agroforestry Systems

Particulars	Description
Production of Agroforestry Technology and Information Kit	documentation of various agroforestry practices and technologies as reference guide field practitioners involved in upland development
Production of Regional Agroforestry Technology and Information Kit	produced to strengthen the DENR capability in preparing Agroforestry IEC materials and to document regionalised or more site-specific AF practices and technologies.
Implementation of CARP-ESF R&D program (1995)	implemented as an intervening system to restore food and ecological security in the uplands and coastal villages. The program developed 3,103 ha, where smaller areas for development were devoted to nontraditional activities.
Upland Development Program	This program was implemented by DENR in partnership with academic institutions which intends to develop effective participatory approaches and to enhance the capabilities of DENR and the upland communities for resource management.
Establishment of CBFM Regional training centers - the Center for People Empowerment in the Uplands	this is designed to promote the involvement of local communities and to encourage their active participation in upland development through people's empowerment and capacity building.

Source: Agroforestry and Multipurpose Trees and Shrubs R&D Team. R&D status and directions (2000 and beyond): Agroforestry and multipurpose trees and shrubs. Los banos, Laguna: PCARRD-DOST, 2003. 45 p.

Needed: INDIGENOUS PRACTICES, local ecological knowledge and IPR protection

Major Policies

Policy No/Title	Specific Title/Chapter/Section	Date Issued	Objective/Thrust
PD 1152 – Philippine Environment Code	Title IV, Chapter 3, Section 33	6-Jun-77	management policy on soil conservation
EO 277 - Amending Section 68 of PD 705....., for the purpose of penalizing possession of timer and other forest products without legal documents.....	Section 1 to 3	25-Jul-87	management of illegal possession of timber and other forest products
PD 1559 - Further amending PD 705, otherwise known as the Revised Forestry Code of the Philippines	Section 36	11-Jun-78	incentives to encourage qualified persons to engage in Industrial tree plantations, Tree Farms and Agroforestry Farms
	Section 68		Cutting, gathering and collecting timber or other products without license
RA 7076 - An Act Creating a Small-scale mining program and for other purposes.	Section 7	27-Jun-91	getting consent from the cultural communities prior to the declaration of the area for small-scale mining if it is within the ancestral land
	Section 13		requiring the contract holder to follow duties and responsibilities which include complying with the pertinent rules and regulations on environmental protection and conservation particularly those on tree cutting, mineral processing and pollution control.
RA 7586 - An act providing for the establishment and management of NIPAS, defining its scope and coverage and for other purposes	Section 13	1-Jun-92	Giving due recognition to the ancestral land and ancestral customary rights. DENR shall no power to evict nor resettle the existing indigenous community.
	Section 15		Portion of the protected areas under the jurisdiction of other government instrumentalities prior to the passage of the Act shall remain in the said government instrumentality.
PD 953 - Requiring the planting of trees in certain places and penalizing unauthorized cutting, destruction, damaging and injuring of certain trees, plants and vegetation		6-Jul-76	Planting of trees in any part of land parcels for beautification, reforestation and creation of beautiful environments.
RA 7160 - Local Government Code	Section 17 b.2		Mandates LGU to implement community based forestry project with coordination to DENR

BADLY NEEDED: RECONCILE CONFLICTING CLAIMS

Major Policies.....

Policy No/Title	Specific Title/Chapter/Section	Date Issued	Objective/Thrust
EO 204 - establishing an inter-agency steering committee to assist LGU in preparation and completion of their CLUP	Section 2	1993	- provide technical support to LGU in preparation of CLUP in order to attain consistency of the CLUP with the medium term Philippine Development Plan (1999-2004)
			- through organization of local planning team and providing them guidelines of implementation
Proposed Executive Order No. _____ - Sustainable Forest Policy of the Philippines		draft and still under review	- will be composed of strategies on how to best apply the various forest policy reforms (devolution, NIPAS, CBFM, SEP, IPRA, Adoption of Agenda 21, and others) in the country to promote sustainable forestry).
			- strategies to be used include sustainable and integrated development of forest resources; expansion, protection and intensification of forests (will encourage development of new plantations and agroforestry); forestry resources to reduce poverty; CBFM

**BADLY NEEDED:
ARBITRATION PROCESSES AT LOCAL
LEVELS**



Related Regulations

Policy No/Title	Specific Title/Chapter/Section	Date Issued	Objective/Thrust
DAO 2000-29, Guidelines regulating the harvesting and utilization of forest products within Community Based Forest Management Area	Section 1	14-Mar-00	Recognizing the responsible and efficient resource utilization by organised and empowered local communities based on sound ecological and economic principles can result to sustainable management of forest lands and resources through granting of resource-u
	Section 3		Utilization of naturally grown and/or planted forest resources shall be covered by resource use permits.
	Section 4		Harvesting of timber within the natural forest should be confined in areas identified as production forest.
	Section 7		The RUP shall serve as permit to sell the logs, lumber, and other forest products. Natural Resource Development Corporation shall assist in the processing, marketing and disposition of forest products
DAO 2000-20, Amendment to DENR AO No. 99-46 dated Nov 10, 1999, Re: Revised regulations governing the entry and disposition of imported logs, lumber, veneer, plywood, other wood board panels, poles and piles, pulpwood wood chips		20-Feb-00	RUPs shall be prepared for each resources such as timber, rattan, resins and shall serve as the permit to use the resources. As a matter of general policy, commercial logging shall be banned in natural forests.
DAO 2002-02 - Establishment of and managemnt of Community based program in Protected Areas	Section 3	3-Jan-03	encourages organized tenured migrant communities and interested IPs manage, develop, utilize, conserve and protect the natural resources

**BADLY NEEDED: ADVOCACY, IEC, BUY-IN
by civil society**

Related Regulations.....

Policy No/Title	Specific Title/Chapter/Section	Date Issued	Objective/Thrust
DAO 2001-29 - Addendum to Section 4 of DAO 99-46 providing for the Revised regulations governing the entry and disposition of imported logs, lumber, veneer, plywood, other wood based panels, poles and piles, pulpwood and wood chips		16-Aug-01	included the part of Dumaguete City, negros Occidental as additional port of entry to the Visayas Region
DAO 201-29 - Institutionalising the integrated water resources managemnt in DENR programs and project	Section 3	5-Nov-01	Institutionalisation of IWRM will bring together the private sector, non-govermental or\organization, civil societies, academe, youth and LGUs to work towards common goals of water resource protection.
DAO 2000-12 - Requiring the planting of permanent trees in portions of A&D areas susceptible to soil erosion		9-Feb-00	requyiring A@D land owners to plant permanent trees in areas susceptible to soil erosion such as steep slopes (15% up) for issuance of patent
DAO 2000-21 - Revised guidelines in the issuance of private land timber permits/Special private land timber permit	Section 2	28-Feb-00	Authorization of cutting, gathering, transport, disposal and utilization of naturallly grown trees or planted permium tree species in private lands
DAO 2000-44 - Amending certain provisions of DAO 96-29 and providing specific guidelines for	Article 1, Section 5	6-Jun-00	Subject to private rights, CBP shall apply to all areas designated as multiple-use and buffer zone of protected areas
	Article II, Section 1		Only qualified tenure migrant communities who are duly organized may participate
DAO 2000-50 Rules and regulation governing sanitation cutting on pest infested forest	Sec 3	21-Jun-01	sanitation cutting shall be undertaken in forest areas whether natural or plantation infested with bark beetles and in limited scale with wood borers, Phellinus root rot, fungus or other related organisms

BADLY NEEDED: LOCALIZED DESIGN, REAL PARTICIPATION. "The devil is in the details."

Related Regulations.....

Policy No.	Location	No. of Parcels	Area (ha)	Remarks
DAO1999-13	Region 13-CARAGA	19	684,503.00	PFL as CARAGA Forest Plantation Corridor
DAO1999-40	Region 06	14	2,609.17	PFL for the Employees Forest Production Project
DAO1999-42	Region 13-CARAGA	2 housing project 1 eco-village 8 forest production	1,403.00	For Employees Forest Production and Eco-village Area
DAO1999-50	Misamis Occidental	2	585.00	For Employees Forest Production Project Area
DAO1999-	Region 11	13	8,879.00	For Employees Forest Production Project Area
DAO1999-	Region 10	6	3,108.31	For Usufruct rights in tree farming
DAO1999-	Rizal Province	7	3,269.00	PFL within Marikina Watershed Reservation for Employees forest production project For Usufruct rights in tree farming
DAO1999-59	Region 11	4	4,595.00	For Usufruct rights in tree farming
DAO 2000-01	Region 03	11	1,515.16	PFL for the Employees Usufruct Project
DAO 2000-08	Region 08	11	1,433.296	PFL for Employees Usufruct project
DAO 2000-09	Region 07	12	4,087.00	PFL for employees forest production area
DAO 2000-17	Region 04	13	3,228.00	PFL for employees forest production area
DAO 2000-31	Region 01	8	862.16	PFL for Usufruct right in tree farming activities of employees
DAO 2000-32	Region 08	11 Usufruct 5 forest production 4 housing project	1,588.50	PFL for Usufructright in tree farming, forest production area and housing project for DENR personnel (485.65ha for forest production and 15.64ha for housing project)
DAO 2000-33	Region 10	2	741.00	For Usufruct rights in tree farming
DAO 2000-34	Region 02	4	785.00	For Usufruct rights in tree farming
DAO 2000-35	Region 01	5	306.88	For forest production project of employees
DAO 2000-36	Region 03	7	769.112	Additional sites for Usufruct Project
DAO 2000-41	Region 10	3	803.00	Additional parcels for Usufruct rights in tree farming
DAO 2000-42	Region 03	1	148.85	Additional sites for Usufruct project
DAO 2000-43	Region 03	3	331.32	Additional site for forest production area
DAO 2000-52	Region 01	4	570.00	Additional site for forest production (modified SIFMA), amending DAO 2000-35
DAO 2000-56	Rizal Province	1	314.61	For Usufruct rights in tree farming of the DENR Central Office employees, amending DAO 99-44.
DAO 2000-60	Negros Occidental	1	801 944 sq.m.	For Employees forest production area.
DAO 2000-73	Region 01	1	100.00	Additional area for Usufruct rights, amending DAO 2000-31

BADLY NEEDED: LOCALIZED DESIGN, REAL PARTICIPATION. "The devil is in the details."

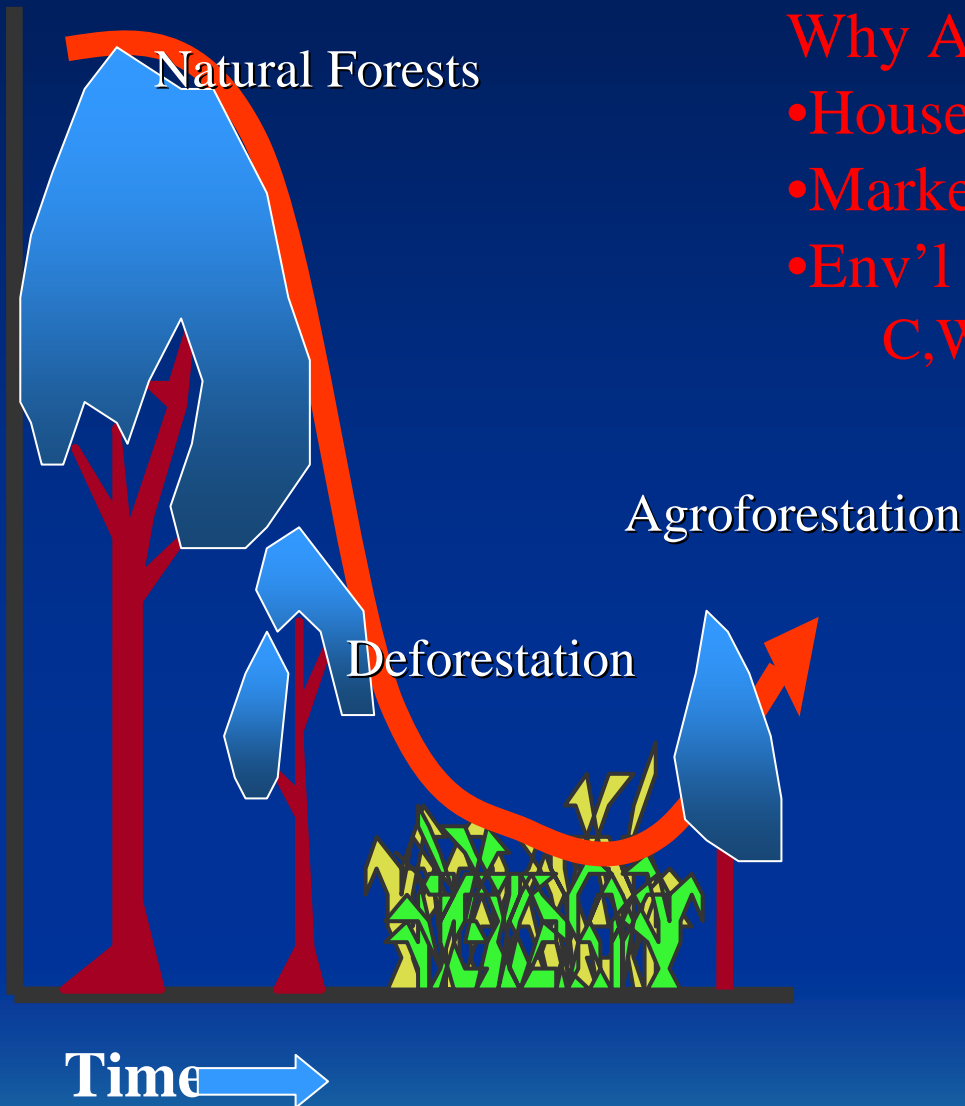
Related Regulations.....

Policy No.	Location	No. of Parcels	Area (ha)	Remarks
DAO 2000-74	Region 03	1	67.74	Additional Usufruct area
DAO 2000-75	Cagayan de Oro City	2	100.00	For Usufruct rights in tree farming
DAO 2000-76	Region 10	1	10.00	Additional Usufruct area
DAO 2000-79	Region 08	1	40.6139	Additional parcel for Usufruct project of Tacloban personnel
DAO 2000-80	Malaybalay City, Bukidnon	1	1,552.65	Additional area for Usufruct rights in tree farming
DAO 2000-85	Region 03	3	350.00	Additional sites for Usufruct Project Areas
DAO 2000-88	Rizal Province	1	2,388.00	PFL within the Kaliwa River Watershed Reservation for the DENR-NAMRIA Employees usufruct Area
DAO 2000-90	Region 08	3	1,684.18	PFL for Usufruct Right in Tree Farming and Forest Production Area of DENR-CENRO Albuera, Regional Office and CENRO Maasin Personnel
DAO 2000-91	Region 02	11	4,354.54	For Usufruct rights in tree farming
DAO 2000-92	Region 02	13	39,990.23	Forestland for Employees forest production area
DAO 2000-93	Region 03	1	243.00	For DENR-NRDC Employees forest production
DAO 2001-06	CAR	15	421.26	For Usufruct rights in tree farming

BADLY NEEDED: LOCALIZED DESIGN, REAL PARTICIPATION. "The devil is in the details."



Deforestation (ironically creates opportunities for smallholder tree farming ...



Why AF?

- Household needs
- Market demand
- Env'l services:
C,W,B,E

But smallholder agroforestry SYSTEMS have not evolved to a scale critical for livelihood, ES and conservation purposes

New opportunity for agroforestry:

emerging markets for environmental services:

**Developing Mechanisms for
REWARDING
THE UPLAND POOR (in Asia)
FOR ENVIRONMENTAL
SERVICES**

That They Provide

(R U P E S Program)

*IFAD GRANT, 2002-2004 / World Agroforestry
Centre (ICRAF)*



WHY RUPES?

- **Uneven benefits and costs of conservation in agroforestry**
 - free benefits to users
 - costly to suppliers: upland poor
 - cases with subsidies (in kind) , direct payments
 - not earned by the poor providers
 - not sustainable: post project backsliding
 - were not effective: no critical mass of ES
 - some reasons:
 - identification, attribution and measurement problems
 - weak institutions, tenure insecurity
 - short-lived sources of support
 - dominance of policies that penalized smallholder tree farmers
 - not connected with users/beneficiaries

RUPES Action Research

- In a range of settings
 - identification and monitoring of ES
 - land use options, benefits and costs
- an array of mechanisms developed and tested with poor communities
- transparent enabling institutional environment
- awareness raised among government officials, producers and consumers of these services
- effective partnerships formed among consortium members: regional, national and local



HYPOTHESIS

**Purposive, scientific, participatory
processes to develop RUPES
mechanisms**

will **simultaneously**

- **reduce/eliminate poverty, and**
- **sustain environmental
services**



Enhancing Partnerships

- Center for Int'l Forestry Research (CIFOR)
- Conservation International (CI)
- Country partners: national and site levels
- Economy and Env't. Prog. for Southeast Asia (EEPSEA), IDRC
- Ford Foundation
- International Institute for Env't & Dev't (IIED)
- Winrock International
- Worldwide Fund for Nature (WWF)
- World Agroforestry Centre (ICRAF), lead implementer
- World Resources Institute (WRI)
- World Conservation Union (IUCN)



WHICH ENVIRONMENTAL SERVICES?

- watershed protection services (WPS)
- biodiversity conservation (BCS)
- carbon storage and sequestration (CSS)
- landscape beauty and amenity



ENVIRONMENTAL TRANSFER MECHANISMS

- **ES REWARD TO PROVIDERS**
 - cash payments, ecolabelling, credit access, priority access to social services and infrastructure, property rights, etc.
- **ES PAYMENT BY BENEFICIARIES**
 - Water fees, park fees, payments to conservation funds, budget allocation, carbon payments, etc.
- **MATCHING SUPPLY AND DEMAND**
 - *By administrative fiat,*
 - *By market creation,*
 - *By brokering*

TARGET: Institutionalized mechanisms

**AF PRACTICIONERS NEED TO PREPARE
THEMSELVES FOR THESE**



ENVIRONMENTAL TRANSFER MECHANISMS

WHY REWARD TO PROVIDERS OF ENVIRONMENTAL SERVICES?

- **opportunities are foregone because**
 - competition for land (nutrients, light)
 - timing of revenues
 - lower production (of alternative marketed products)
- **non-market products are excluded, undervalued or unpaid**



ENVIRONMENTAL TRANSFER MECHANISMS

WHY SHOULD USERS PAY FOR ENVIRONMENTAL SERVICES?

- **Surplus earned by producers and consumers should be shared by society**
 - Higher net earnings from irrigation
 - Benefits from secure water supplies, recreation
- **Sustain ES to avoid higher cost of next best alternatives: encourage good use**
- **Enhance ES to lower maintenance and avoid replacement cost**



RESEARCH QUESTIONS

How can these services be measured and their benefits be quantified?

- *amounts provided, by whom and how?*
 - *Watershed Protection*
 - *streamflows and water quality*
 - *erosion and sediment transport*
 - *impacts of changes in land-use*
 - *Biodiversity conservation*
 - *indices and scale*
 - *levels and interactions*
 - *Carbon storage and sequestration*
 - *net impact; over-all land-use*



RESEARCH QUESTIONS

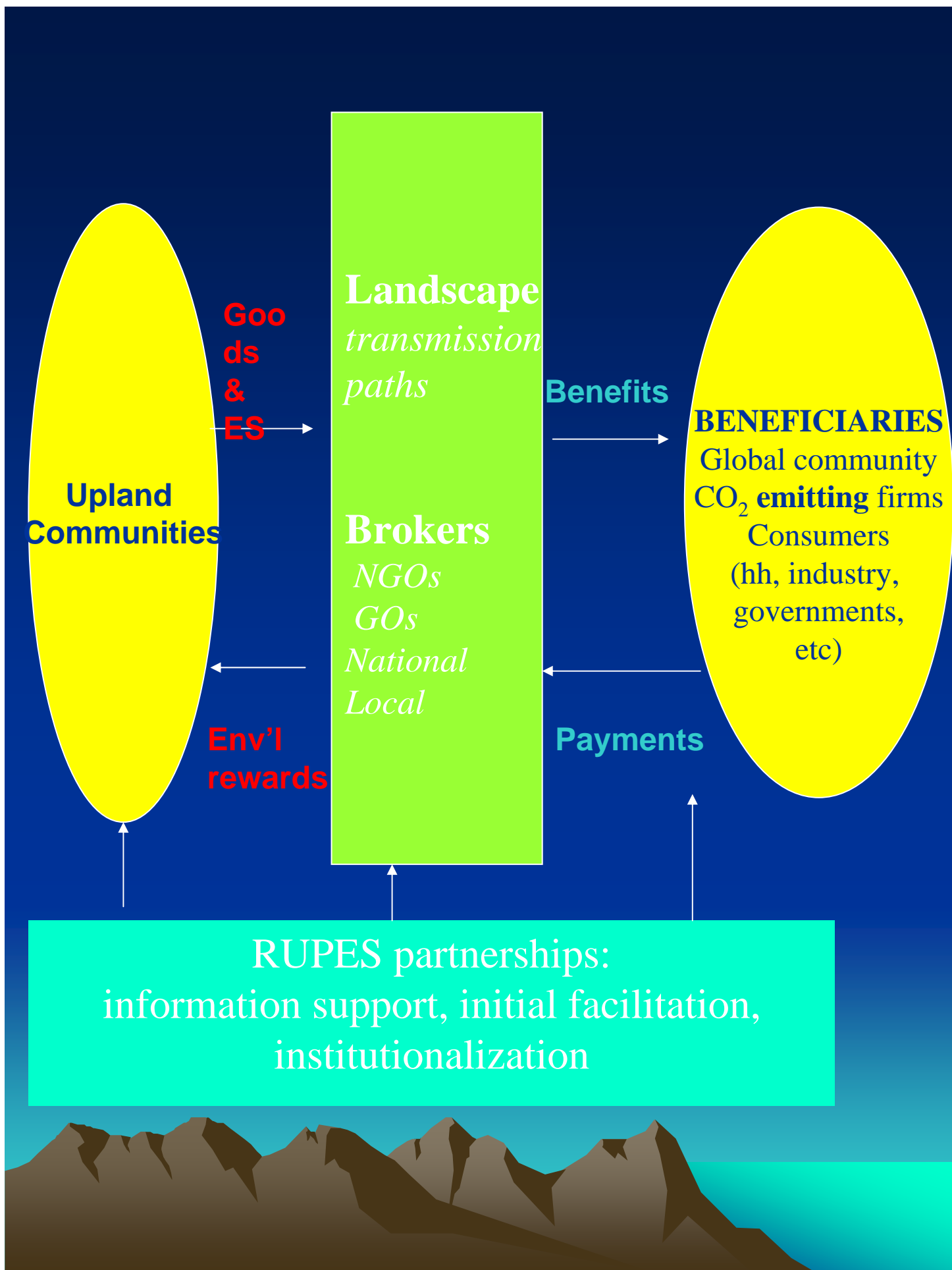
- **How to reward providers?**
 - *Who are the providers?*
 - *What are the economic costs they bear for supplying these services?*
 - *How to monitor basis for rewards?*
 - *Bundle rewards for jointly provided services?*
 - *Individual, group?*
 - *Role of property rights reform:*
 - *Necessary regardless of ES payments*
 - *but not sufficient?*
 - *complement with other compensation, including non-financial*
 - *remember CARP!!!*



RESEARCH QUESTIONS

- *Who gains ?*
 - *How much to collect from beneficiaries?*
- *How to monitor the basis for collection?*
- *How to anticipate and prepare for changes in demand and supply that may threaten sustainability of mechanisms*





SITES

- **Perspectives**
 - Site level lessons, elements that make environmental rewards work
 - Broader perspective of the whole development process and setting where these lessons may or may not be applicable
- **What government level to work with**



RUPES SITES

- **Criteria:**

- Apparent market with potential for development
- Considerable social capital to build on
- Tenure reforms under way
- INRM framework
- Monitoring of ES - capacity building initiatives



PHILIPPINE SETTING

NATIONAL, Starting Point: existing user fees (mostly based on demand-side approaches)

- hydropower fees for watershed protection (under NPC) based on Power Sector Reform Act
 - *built into water charges: surrogate pricing*
- continuing work for specific Protected Areas with user fees (recreation, devpt, resource extraction fees)
- on going formulation of bioprospecting fees, royalties and sharing mechanisms
- *next: develop appropriate payments for deserving uplanders (AF)*

PHILIPPINE SETTING

**NATIONAL, Starting Point: sites
w/ entitlements**

- Community-based, secondary forests
- Social Forestry, agrarian reform areas
- Protected Areas, but delineation slow
- Indigenous Peoples with Certificate of Ancestral Domain Titles: continuing, but overlapping claims need to be reconciled

Work on removing PUPES (policies that penalize the upland poor for providing ES)

Contribute to processes for ratifying Kyoto;
Devpt Bank of the Philippine mechanisms

Work on site proposals for other funding sources



RUPES PHIL, Nov 03

Status

- *10 person National Technical Committee organized*
 - Inputs to site proposal discussion
 - Continuing policy dialogue
 - Networking
- *8 sites proposed*
 - *1 approved with RUPES funding*
 - *2 to receive technical assistance only; with own funds, pending results of market analysis*
 - *3 disapproved of which 1 will be the focus of a case study*
 - *1 resubmitted, October 31: await future devpts*



PHILIPPINES

Site Development, to date:

Approved by RUPES ISC

KALAHAN, Nueva Ecija: selected by RUPES ISC

- carbon sequestration; watershed services; local NGO

; technical assistance from RUPES

DEVELOPMENTS BEING MONITORED

Mt. Kitanglad Range Natural Park: biodiversity protection; watershed services; participation of indigenous peoples need strengthening

WWF: Northern Sierra Madre Range Nature Park; Sibuyan Island

- biodiversity protection, watershed functions
- demand studies funded externally for Northern Sierra Madre
- development activities own funds

PRIORITY: ASSESS AF SYSTEMS, IMPACTS, AND LOCAL INSTITUTIONS



We are still addressing poverty:

The critical lack of any of the five types of capital

Social capital

institutions, policy, laws,
rights & responsibilities,
rewards and sanctions

Natural capital

soil, water,
vegetation,
fauna, minerals

Physical capital

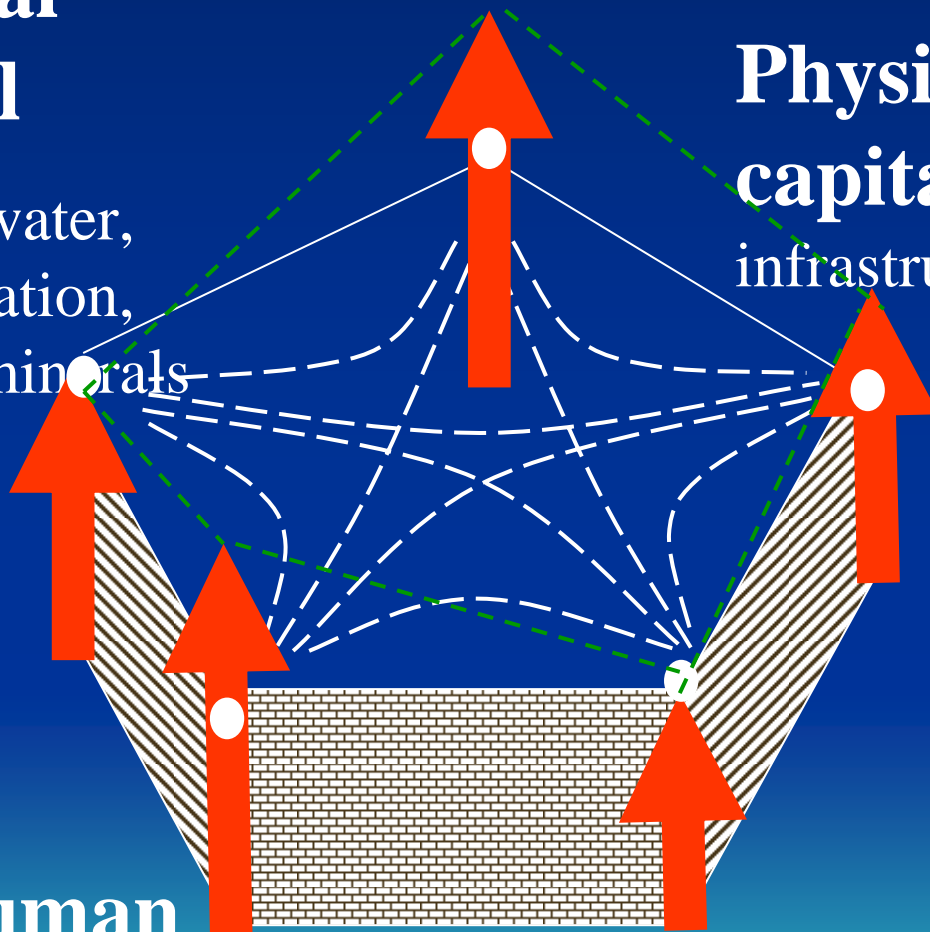
infrastructure

Human capital

health, nutrition,
labour, knowledge,
'voice'

Financial capital

cash,
credit, reserves



POLICY, INSTITUTIONS, ADVOCACY

- REGULAR, CREDIBLE INFORMATION ON AF SYSTEMS, STAKEHOLDERS, IMPACTS
- POLICY FRAMEWORK AT THE NATIONAL LEVEL, FORMULATION OF DETAILS
- CONVERGENCE: various levels, institutions,
- EMERGING ENVIRONMENTAL MARKETS – prepare for these
- INSTITUTIONS: PARTNERSHIPS, ARBITRATION, CAPACITY BUILDING

