Ecotourism: Principles and Practices

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Chapter 1

Concepts and Definitions

Disputed Definitions

- ecotourism means different things to different people
- principles not always met in practice
- many definitions proposed

Key Components

- nature-based product
- minimal-impact management
- environmental education
- contribution to conservation

Critical Issue

- net benefit for environment
- contribution to conservation outweighs impacts
- contributions may be direct or indirect

Why Does Ecotourism Matter

- fund conservation, some countries
- reduce tourism impacts in parks
- improve mainstream tourism's environmental management
- significant social phenomenon
- development policy instrument

Related Terms

- sustainable tourism
- responsible tourism
- geotourism

Chapter 2

Related Sectors

Nature(-based) Tourism

- broad term, refers to natural attractions
- used by analysts more than industry
- includes ecotourism
- all tourism based on natural attractions, irrespective of management, interpretation, or conservation
- includes wildlife tourism but also tourism based principally on scenery

Wildlife Tourism

- consumptive *cf* non-consumptive
- terrestrial *cf* marine
- levels of habituation
- types of interaction

Adventure Tourism

- high-volume low-skill low-price, *cf*
- low-volume high-skill high-price
- expanding edge of tourism industry
- worldwide geography
- ~40 activity subsectors
- often combined with nature-based, cultural and/or ecotourism

Cultural Tourism

- cultural immersion tours
- language tours
- art, music, dance
- museums, heritage
- traditional customs
- artefacts and retail

Farm Tourism

- natural attractions, private rangeland
- farming practices as tourist attraction
- cowboy, stockman, gaucho, baqueano
- dairy cattle, sheep fells, olive groves
- vineyards, orchards
- farm-related activities: e.g. horse trails, sheep-shearing demos

Chapter 3

Business

Ecotourism Business Basics

- ecotourism is still tourism
- same basics as any other business
- capital, equipment, marketing, sales, cashflow, staff, legals
- competition vs other tour products

Management Structures

- sales, accounting, cashflow
- logistics, equipment maintenance
- guiding and interpretation
- safety and risk management
- environmental management

Key Legal Issues

- land and water access, permits
- sales, marketing and commission agreements
- staff employment arrangements
- insurance and client disclaimers

Staff Skills and Training

- sales, accounting, management
- logistics: reliability, competence
- guides: leadership, qualifications
- training: hard and soft skills

Staffing Structures, Contracts

- owners and working shareholders
- core staff: managers, lead guides
- contract staff, seasonal guides
- cut salary costs if sales fall
- ability to add volume if sales rise

Chapter 4

Products

Tour Components

- travel and transfers
- accommodation and meals
- activities and equipment

Packaging and Selling Tour Products

- sell components separately or as package
- on-ground operators
- packagers and retailers
- inbound and outbound agents

Ecotourism Products

- most are local only
- i.e. exclude long distance travel
- accommodation: lodges, camps
- activities: guided, low-impact
- single-day *cf* multi-day products

Geography of Ecotourism Products

- different histories: safaris, outfitters
- regional patterns in modern products
- dependence on physical geography
- wildlife biogeography
- cultural frameworks
- preferences of different ethnic groups

Links to Other Industries

- fashion, clothing
- advertising, entertainment, media
- equipment, vehicles
- construction, property

Chapter 5

Marketing

Marketing

- mainstream distribution systems: agents, packagers etc
- websites, referrals, associations
- syndicated marketing for SMEs

Ecotourism as a Marketing Label

- an ecotourism market segment?
- what makes people buy ecotours?
- attraction, activity, guide, ethics?
- “ecotourism lite” and “greenwash”

Ecocertification Schemes

- labels, certification, awards
- competitive-entry associations
- membership-based systems
- supply-chain systems
- checklists *cf* quantitative criteria
- audits and penalties

Chapter 6A

Economics Scale and Values

Measuring Economic Scale

- size depends on what is included
- strictly-defined ecotourism small
- national park visitation medium
- overall outdoor tourism very large

Strict Ecotourism: Operators

- aggregate turnover of companies
- define on most limiting criterion
- i.e. net contribution to conservation
- screen and sample case studies
- very few satisfy this criterion
- so total economic scale very small

Nature Tourism: Broad

- product criterion only: nature-based attraction
- largest component is visiting national parks
- parks for public good not profit

Value of Parks for Tourism

- estimates need indirect measures
- travel cost, time value, fees, direct costs
- park entry and activity fees vary enormously between countries and parks
- fees often differ for locals and visitors
- fees set by political not economic factors
- fees are small *cf* economic value

Valuing Park Visits

- minimum value of park visit measured by expenditure to experience it
- fees, travel, time, gear
- fees = direct charges by park
- includes entry, camping, activity
- travel = costs to get there
- e.g. tour package, plane or bus, private vehicle costs

Travel Costs

- includes travel accommodation
- time cost = value of time lost
- measured by income foregone
- fraction of time depends on precise economic issue addressed

Equipment Costs

- gear = recreational equipment
- specialist equipment value in full
- divided over years of use
- e.g. birdwatching binoculars, tents, sleeping bags etc
- non-specialist gear partitioned by use, e.g. 4WD vehicles

Outdoor Tourism Industry

- ecotourism and nature tourism are part of outdoor tourism industry
- outdoor tourism also includes a large adventure tourism subsector
- with associated equipment and clothing subsectors
- much of equipment is mechanised and hence expensive

Infrastructure and Property

- outdoor sector also includes fixed-site activities
- & residential real estate components
- adventure recreation also triggers amenity migration
- total scale of outdoor industry is hence US\$ trillions per annum

Some Statistics

- US outdoor industry alone ~ US\$ 1 trillion
- includes ski resorts and off-road vehicles
- outdoor tourism ranges from <20% to >90% total tourism in different countries
- global estimate >20% of total tourism
- total global tourism approx US\$7 trillion
- i.e. global outdoor tourism >US\$1 trillion
- possibly up to US\$1.5-2 trillion

Chapter 6B

Economics: Fees and Prices

High-Priced Adventure Tours

- some expedition wildlife cruises
>US\$1,000 pppd (per person per day)
- other adventure activities \$50-500 pppd
- luxury lodges and tours to \$1,000 pppd
- but most around US\$200 pppd
- high-volume and family nature tours
commonly <US\$100 per person per day

Parks and Community Ecotours

- park fees typically <US\$20 per person per day
- but up to US\$100 in some countries and parks
- some short low-key community ecotours <US\$10
- community guesthouses typically <US\$20 pppd
- most high-volume products low-priced and *vice versa*
- some high-volume adventure products mid-priced
- some low-volume community products low-priced

Fees and Charges

- public and private land different
- private landowners = individual contracts
- e.g. fixed rental or revenue sharing
- and/or user fees per day or per person
- different operators, different fees
- exclusive access at premium price
- or can operate own tourism business
- commercial arrangements, driven by profit

Fees in Public Parks

- many parks charge entrance and activity fees
- fees rarely cover infrastructure costs
- but help offset recreation costs
- indirectly maintain conservation funding
- no estimates of total global cashflow
- in developed countries, fees are typically only a few percent of total budget
- in developing countries, visitor fees may be major source of operating cash

Operator Fees, Public Lands

- operations subject to laws and policies on equity, procedure etc
- one-off deals for large operations
- standardised set-ups for small tours
- e.g. qualifications, registration, certification

Fee Components

- fees typically in two major components
- annual commercial activity permit
- plus recurrent entry, camping, activity fees
- similar to fees for private individual visitors
- may be higher or lower depending on park
- international visitors may pay extra

Community Contributions

- local income doesn't always match retail price
- most of package price may go to airfares, retailer, agents, packagers
- ecotourism aims to boost local income
- e.g. park fees, community lease payments
- local employment, contractors
- and local purchasing, food, supplies, etc
- different degrees of localness
- e.g. neighbouring village *cf* national capital
- complex for countries with tribal structure

Conservation Contributions

- conservation is key to ecotourism
- political contributions are unproven
- principal contributions are financial
- direct income for private reserves
- fees for public parks, minus costs
- jobs from park-based tourism

Funding Private Conservation

- wide range of models
- some specifically for conservation
- funded by upmarket lodges and tours
- conservation management of rangeland
- tourism may be only one income stream

Private Reserves

- most funded through philanthropy
- some funded through ecotourism
- examples in Africa and Latin America
- a few in Asia, Australia
- strong reliance on charismatic wildlife
- many are adjacent to public parks

Indirect Economic Contributions

- employment and opportunities for locals
- tourism using conservation attractions
- supports conservation *cf* other land uses
- conversion from logging to parks
- protecting parks from subsistence farming
- park-based tourism global scale unknown
- relatively few comparative analyses

Chapter 7

Environmental Management

Site and Scale

- impacts depend on site and scale
- aggregate impacts of development clusters
- particular impacts in protected areas

Design and Technologies

- low-impact design, architecture
- best-practice technologies
- e.g. sewage, greywater, garbage
- energy and water savings
- lower noise, quieter engines
- emission controls

Management Structures

- environmental management at all levels
- owners: message to retail clients
- on-ground: management, equipment
- guides, frontline: instructions to clients
- clean back-of-house operations
- routine environmental audits

Long-Distance Travel

- global atmospheric pollution
- acid rain
- ozone depletion
- global warming
- improve fuel efficiencies
- reduce airport congestion

Local Transport Components

- design tours for low impacts
- minimise high-impact transport
- such as helicopters or speedboats
- no vehicles or stock in parks

Engines

- engine type, capacity affect impacts
- anti-spill measures during refuelling
- type, tuning, emission control
- e.g., four-stroke *cf* two-stroke

Accommodation

- design lodges for minimal impact
- insulation, natural lighting, layout
- guest areas, staff areas, utilities

Energy Conservation

- energy-efficient technologies
- e.g. energy-saving refrigerators, light globes
- educational programs
- demand management devices
- e.g. room-light master keys

Water Conservation

- water-saving technologies
- e.g. low-irrigation landscaping
- water-saving showers and washing machines
- educational programmes
- laundry of hotel towels and linen

Resource Conservation

- reduce packaging at purchase
- reusable food, beverage containers
- refillable toiletry containers
- only if permissible under health laws
- separate recyclables
- glass, aluminium, paper, cardboard
- compost organic garbage

Reduce Water Pollution

- use best available treatment technologies
- for sewage, sullage and garbage
- minimise fertilisers and pesticides
- e.g. lawns, landscaping, gardens
- through selection of species and mixes
- monitor runoff and leachates
- biodegradable soap, detergent, cleaners

Individual Behaviour

- choose low-impact transport
- pick operators with good management
- minimise disposable items
- pick operators who help conservation
- choose low-impact activities
- follow minimal-impact codes
- in parks, backcountry, wilderness

Chapter 8

Impacts

Minimising Impacts

- minimising impact is a defining criterion for ecotourism
- need to understand impact mechanisms
- tools, technologies to reduce impacts
- indicators to assess effectiveness

Different Impacts from Different Components

- accommodation: tents, lodges, hotels
- transport, ground: foot, bike, horse, ORV
- water: kayak, raft, sail, motor, ship
- air: balloon, plane, helicopter
- activities: e.g., climb, dive, wildlife

Cross-Overs Between Components

- e.g., some raft and kayak trips use helicopter access
- and many expedition cruises have off-ship landings

Accommodation

- water supply
- heat, light, power
- sewage treatment, disposal
- washing, cleaning, greywater
- wastes: packaging, food, etc

Water Supply

- supply: rivers, boreholes, dams
- quality: filters, treatment, sludges
- scarcity: deserts, mountains
- particular uses: e.g. snowmaking

Heat, Light, Power

- camping: fuel stoves, campfires, flashlights, headlamps, candles
- campfires: minimal-impact practices
- lodges: gas, diesel, wood, microhydro
- generators: noise, exhaust
- urban hotels: municipal supplies
- greenfields resorts: powerline impacts

Sewage Treatment & Disposal 1

- individual catholes for backcountry hiking
- and for little-used rivers, coastlines etc
- carry-out bags, tubes for climbing routes
- self-contained boxes for river rafting
- composting toilets for trails and camps
- pump-out toilets in arctic and alpine

Sewage Treatment & Disposal 2

- some lodges use composting systems
- most fixed accommodation has flush toilets
- septic tanks, small-scale treatment plants
- urban hotels use municipal sewers
- port pump-out systems for small boats
- marine systems for ocean-going ships

Washing, Cleaning, Greywater

- camping: biodegradable soaps, detergents
- all washing well away from water sources
- lodges: greywater tanks, soaks, evaporation
- islands: self-contained systems
- urban: municipal systems

Wastes

- camping: pack in, pack out
- bulk purchases to minimise packaging
- recycle paper, glass, plastic, metal, organics
- compost, mulch, worm farms for food wastes
- use urban recycling programs if nearby

Transport

- toilets, wastes, washing
- fuel consumption and efficiency
- engine exhausts, air pollution
- engine noise
- transport of weeds and pathogens
- trampling damage from feet, hooves, tyres
- anchor damage from boats
- secondary impacts from roads, tracks, trails

Weeds and Pathogens, Terrestrial

- weed seeds, fungal spores in mud
- on car tyres, hike boots, horse hooves
- also in horse and livestock feed
- and even mud on tent pegs
- cleaning and quarantine measures
- different transport seed mechanisms

Invasive Species, Marine and Aquatic

- marine and aquatic species on boats
- on hulls and in ballast water
- anti-fouling, onshore ballast treatment
- insects attracted by lights on boats

Trampling Damage

- wheels, hooves, boots, all crush plants
- trampling damage and recovery
- different effects at different intensities
- susceptibility differs between species
- grasses less susceptible than other plants
- different ecosystems more or less resilient
- soil invertebrates also affected

Impacts of Roads and Trails

- more people access area once trail exists
- in dry areas, fires often started by vehicles
- in wooded areas, roads are wildlife barriers
- weeds move along road verges
- erosion starts from roads and tracks
- noise from roads disturbs wildlife
- fragmentation of conservation areas

Noise and Visual Disturbance

- construction, generators, clatter
- overflights, vehicles, boats, off-road
- human voices, bright colours, movement
- different species respond differently
- individual animals also respond differently
- can become habituated to particular noises
- still disturbed by different sounds

Chapter 9

Conservation

Key Component of Ecotourism

- if ecotourism does not contribute to conservation
- then it is just like any other economic activity
- therefore conservation is a key criterion for ecotourism

Potential Indirect Political Mechanisms: Issue

- can ecotours change clients to activists?
- argument used by tourism industry
- *cf* parks agencies using recreation to create political constituencies
- no reliable evidence that it happens

Potential Indirect Political Mechanisms: Evaluation

- even if clients become activists, no net conservation benefit unless 3 criteria met:
- (i) activism due to ecotourism experience
- (ii) client activism improves conservation outcomes
- (iii) conservation outcomes outweigh impacts of all clients in aggregate
- therefore this indirect mechanism unlikely

Private Conservation Reserves

- purchase, rehabilitate, re-stock
- conservation and wildlife management
- tourism income covers conservation costs
- so generally needs up-market lodges
- main focus on icon wildlife species
- examples in Africa, Americas, Asia
- effective contributions to conservation

Contributions to Public Protected Areas

- pay rangers, vehicles, equipment
- distinguish from mandatory fees
- mainly in developing countries
- barriers from political patronage

Contributions to Conservation Groups

- direct donations to NGOs
- mainly in developing nations
- run tours for non-profits & NGOs
- mainly in developed nations
- also client levies and donations

Scale of Contributions: Conservation *cf* Marketing

- many operator contributions trivial
- i.e. marketing, certification, award bids
- few conserve rare species or habitats
- those that do are often conservation organisations funded by tourism
- i.e. not principally tourism operations

Chapter 10

Guiding, Education and Interpretation

Guides Have Many Roles

- key component of tours
- logistics, planning, troubleshooting
- safety, health, risk management
- handling finance and formalities
- information, explanation, interpretation
- cultural introductions, client social comfort
- mix of technical and people skills

Guides are Key to Client Satisfaction

- marketing materials mention guides
- good guides are in demand
- upmarket tours expect more
- guides blamed for any mishap
- and expected to fix the problem

Logistics

- guides handle pre-booked tour components
- keep the group on schedule
- organise group check-ins
- handle passports and permits etc

Guides Maintain Safety

- check client skills and equipment
- and group gear including first-aid
- tell clients what and what not to do
- formal qualifications in outdoor skills
- may be qualified as instructors

Health

- legal rules about medicine in most countries
- only qualified medical practitioners can administer prescription drugs
- tours tell clients to get pre-trip medical check
- and bring their own medicines
- guides may have first-aid skills
- guides need to monitor client health
- and manage rest, hydration, etc
- and emergency evacuation if needed

Information and Interpretation

- different clients, different interests
- guides must keep clients enthusiastic
- ensure equal attention for all clients
- critical skill for a good guide
- can consume endless time and energy

Cultural Introduction

- some clients uncomfortable overseas
- guide introduces customs, cultures
- can include greetings, language, food
- and religion, art and lifestyle

Education and Environment

- ecotourism includes education
- many types of environmental info
- local facts: e.g. animals, rocks
- broader debates: e.g. land-use, climate
- technical info: e.g. minimal-impact
- short stories and snippets work well

What Works Best?

- signs: attention, problem, action
- e.g.: “Warning! Collapsed track. Detour”
- spoken: instruction, reason, role-model
- e.g. “Keep quiet, rare birds, easily disturbed” – and speak quietly
- client questions = chance for information
- “teachable moments”

Chapter 11

Community

Models and Issues

- impacts of tours on local communities
- community involvement in tour operations
- community ownership of tour operations
- traditional practices as tourist attractions

Differential Impacts

- some people gain from tourism, some lose
- business, job, social or political capital
- those who profit typically support tourism
- tourism increases prices of food, land etc
- people outside tourism suffer higher costs
- those who lose typically oppose tourism
- polarisation increases as tourism grows

Social Costs

- increasing crime
- envy of wealthy tourists
- inequitable costs and benefits
- loss of traditional social structures
- commoditisation of culture

Employment in Tourism Operations

- direct employment in tours and lodges
- training, qualifications, attitudes
- opportunities in management positions
- in-house up-skilling systems
- immediate locals *cf.* other nationals
- nepotism, bribery, kickbacks to get jobs
- risk of unhelpful staff

Entrepreneurial Opportunities

- subsidiary tourism business, e.g. local tours
- contract services, e.g. transport, cleaning
- wholesale opportunities, e.g. food supplies
- retail opportunities, e.g. artefacts

Authenticity and Commodification

- staged authenticity
- i.e. pretending to be traditional
- cultural performances
- e.g. songs, dances, ceremonies
- tourists can't tell how locals view this
- cultural tours to attract donations
- and to sell artefacts made for tourists
- or mass-produced and bought in for resale

Community-Owned Tourism

- wide range of different arrangements
- lease tourism rights on community land
- revenue-sharing or profit-sharing agreements
- direct community shareholding in corporation
- operations owned in common
- operations owned by individual locals
- local politics and profit, may not be equitable

Chapter 12

Access

Component of Ecotourism Products

- every tour needs an operating area
- area is key component of attraction
- operators need entry and activity permit
- specific permits for commercial tours
- different from permits for individuals

Types of Tenure

- international, e.g. World Heritage Areas
- national protected areas, e.g. national parks
- multiple-use, e.g. public forests, rangeland
- local-government areas: beaches, lakes
- private conservation reserves, rivers
- private farms and other private lands
- international treaty areas, e.g. Antarctic

Access Issues

- particular requirements and prohibitions
- comparison across jurisdictions
- difference between tenures
- conflict between different types of use
- competition amongst similar users
- quotas and preference systems
- fees and permits

Who, What, When, Where

- who has permission to go where
- under what circumstances
- to carry out what activities
- at what times of year or day
- in which particular sites
- all of this may be regulated in detail
- standardised *cf.* negotiated systems

Motorised Use, Livestock, Paddlers, Hikers

- some areas off limits for all recreation
- may allow hikers, bikes, watercraft
- similarly for horses, llamas etc
- vehicles allowed in some large flat parks
- generally not in smaller mountain areas
- but many national parks have road access

Fees and Permits

- can be very simple or very complex
- entry fees separate from activity fees
- commercial tours *cf.* individual visitors
- may have more or fewer rights
- may pay higher or lower fees
- different systems in different countries
- some charge high fees, some zero
- developing countries: foreigners pay more

Particular Requirements

- qualifications to lead outdoor activities
- insurance requirements for tour operators
- first-aid training for trip leaders
- self-contained toilets or bags on some trips
- fire bans at river rafting campsites
- safety equipment e.g. compass or GPS
- nosebags for feeding livestock in parks

Particular Prohibitions

- e.g. no fires at particular places, times
- no fixed bolts at many climbing routes
- no powered watercraft on many rivers
- no firearms in many protected areas

Commercial *cf* Non-Commercial Use

- legal distinction irrespective of group size, activity
- rights for private recreation are not for commercial tours
- permit systems are generally different
- for some sites, tour operators get preferential access
- pre-allocated quotas, e.g. river rafting on Grand Canyon
- competitions and training may also be commercial uses
- conflicts if local recreational users excluded

Comparison Across Jurisdictions

- access rules differ between countries
- e.g. horses in parks in some countries
- commonly reflects historical uses

Competition Amongst Users

- whenever recreational resources are scarce
- includes quiet, solitude, wilderness
- crowding selects for different users
- recreational succession, 'disneyfication'
- frontcountry crowding, backcountry impacts
- tools to control crowding and competition
- quotas, group size, bookings, demarketing
- physical access and infrastructure limits
- competition includes private cf commercial

Chapter 13

Policy and Planning

Different Spatial Scales

- national strategies: broad marketing goals
- regional plan: mix marketing, infrastructure, attractions
- local plans: groups of individual sites and operations

Planning Context

- overall aims
- who it includes
- who it is aimed at
- authority
- responsibility
- funding

Planning Basis

- legal or statutory basis if any
- procedural requirements
- substantive requirements
- political context
- who's writing the plan?

Consultation

- identifying stakeholders
- information, consultation, participation
- involvement, engagement, ownership
- multi-stakeholder implementation
- informal, formal, legal/judicial

Types of Plans

- spatial plans
- marketing strategies
- programme planning

Policy Instruments

- regulatory or coercive
- economic or market-based
- suasive or educational

Multiple Land Use

- forestry, rangelands, fisheries, dams &c
- multiple or sequential use for tourism
- conflicts if tourism has no rights
- some successes, some failures

Tourism in Parks

- education, interpretation
- quotas, zoning, regulations
- fees, charges
- hardening, infrastructure

Recreational Succession, Lifecycles

- type of tourist changes over time
- intensified impacts, infrastructure
- parks call it recreational succession
- cities refer to tourism life cycles

Carrying Capacities

- economic, social, environmental
- shortcomings and difficulties
- limits of acceptable change
- relies on understanding ecology
- and on effective monitoring

Chapter 14

Accounting

Triple-Bottom-Line Basis

- environmental, social, financial
- costs and benefits, stocks and flows
- quantifiable commensurate indicators
- equal details for costs and benefits
- same effort for social, environmental as for financial accounting

Scale and Time Period

- scale: product, company, region, country, world
- time period: e.g. quarterly, annual, 5-year

Financial cf Economic

- questions of scale
- financial accounts typically for single corporate entity
- economic bottom line includes external effects
- e.g., multipliers and linkages
- jobs may be counted as social benefit

Financial Accounting

- many practical manuals and programmes for small-business accounting
- financial accounting is a recognised profession, defined legal frameworks
- corporate financial accounting has prescriptions, procedures, protocols
- even so, there are many different accounting methods and systems

Financial Accounting

- financial bottom line in annual accounts specified with high precision
- but depends heavily on accounting conventions, so rarely unambiguous
- different countries and jurisdictions have different accounting laws and protocols
- financial bottom lines depend on country where accounts compiled

Scale and Entity

- different accounting systems: product, corporation, government, country
- flexibility in attribution of corporate costs and benefits to particular products
- requirements for tax accounting differ from accounting for market valuations

Scale and Entity

- government budget processes differ from corporate accounting
- System of National Accounts for GNP has own protocols
- disagreement over financial bottom lines not unusual

Economic Accounting

- distinction between financial and economic accounting depends on scale and entity
- financial accounts are for owners, inside company
- economic accounts for community, outside company
- salaries, local contracts, purchases are financial cost to company but economic input to community
- commonly expressed as number of new jobs, from employment or entrepreneurial opportunities

Economic Accounting

- economic benefits include secondary effects such as multipliers and marketing
- economic costs are imposed on community through private-sector tourism
- e.g. road maintenance, traffic delays, higher prices, increased crime
- overall, economic bottom line part of social rather than financial bottom line

Social Accounting

- accounting difficulties as no single unit to measure all social costs and benefits
- some components convertible to money
- but conversion rates may be highly contested
- e.g., which is more basic: person's livelihood or unit of currency?
- so, e.g., does social value of time wasted in traffic depend on person's salary?

Social Accounting

- e.g., value of new health services measured in construction costs or extra years of life?
- e.g., value of improved health depend on person's age and social status
- other impacts even more difficult to quantify
- alternative approach to ask people if they feel worse or better off because of tourism
- but this is very crude cf financial accounting

Environmental Accounting: Monetary Approaches

- many attempts to express environmental costs and benefits in economic terms
- entire academic disciplines of environmental and ecological economics
- valuation approaches contested, uncertain
- individuals set enormously different values on various environmental components

Environmental Accounting: Monetary Approaches

- scientific knowledge of quantitative links between ecosystem functions and human economy very sparse
- public and political knowledge of links even poorer
- so revealed-preference, stated-preference approaches both have weaknesses

Revealed and Stated Preferences

- revealed: deduce economic value placed on environment from observed human behaviour
- examples, travel-cost, hedonic pricing, production-function approaches, etc
- stated: ask people what environment is worth
- contingent valuation, choice modelling
- literature on shortcomings, improved models
- all valuations measure human perceptions of environment, not ecological parameters

Conversions between Components

- triple-bottom-line implies accounting for each component separately, no conversions
- quantitative measurement of environmental, social and economic costs and benefits
- some social and environmental costs and benefits can be expressed in economic terms, but with many difficulties
- information collected for environmental accounting very limited cf financial
- need for audit

Environmental Accounting: Non-Monetary Approaches

- various attempts to measure environmental values in non-monetary units
- e.g. 'embodied energy' quantitative but ecologically irrelevant
- conservation outcomes can be accounted using biodiversity measures
- e.g., population changes for rare species, overall species richness, etc
- currently, no single measure to weigh, e.g., wildlife conservation against water pollution
- even comparing, e.g., area of habitat gained cf area lost is uncertain, as depends on degree of protection, conservation value etc, cf degree of damage, potential rehabilitation, etc

Some Practical Paradoxes

- accounting schemes include what is quantifiable, not necessarily what is critical
- e.g., ecocertification programmes may include carbon credits from paying for plantations
- but ignore biodiversity losses from clearing, noise, feral animals, weeds and pathogens, pollution, etc

Accounting in Future

- triple-bottom-line accounting useful concept
- provides valuable framework to consider impacts and management
- may catalyse research on social and environmental indicators and impacts
- but can also distract attention from ecological issues and impacts
- may use social and financial aspects to dilute attention to more critical ecological concerns

Is a Positive Triple-Bottom-Line Possible?

- yes, but very uncommon
- best examples private conservation reserves funded by ecotourism
- with positive returns to local communities and conservation
- case studies: Buckley, R., 2010, *Conservation Tourism*, CABI, Oxford UK

Is a Positive Triple-Bottom-Line Possible?

- some environmental NGOs may also qualify
- majority of ecotourism operators do not
- dependence on funds from rich ecotourists
- local net gains depend on global imbalances
- also impacts from long-distance travel
- but valuable none the less

Chapter 15

Conclusions

Product Patterns

- growth in adventure tourism products
- often including nature tourism elements
- e.g., watching wildlife in remote areas
- product growth: focus on luxury adventure
- highly specialised, exclusive access
- volume growth: short unskilled gateway tours
- combination products, adventure destinations
- product pyramid, economic growth

Environmental Management

- practices, impacts differ between companies
- some have comprehensive and detailed programmes to minimise impacts
- others boast about trivial measures
- large-scale high-impact resorts still common
- few providers go beyond legal compliance
- few adopt best-practice technologies
- some lodges and tours have very low impacts
- these are still very much the minority

Environmental Management

- greenwash and ecotourism lite still common
- ecotourism not yet mainstreamed
- sustainable tourism more rhetoric than real
- most ecocertification ineffective
- good guides reduce impacts of concerned clients
- but high-impact tourists often don't care
- so education and self-regulation don't substitute for standards and enforcement

Contributions to Conservation

- most contributions are small, < impacts
- few companies make net +ve contributions
- principally through private reserves
- others make indirect contributions
- by maintaining political support for parks
- political decisions hard to deconstruct
- so indirect contributions are speculative

Policy Implications

- ecotourism can drive economic growth
- need conservation framework first
- for both public parks and private reserves
- environmental self-regulation ineffective
- need regulations and standards
- issues such as insurance law affect viability