Livelihoods and Ecosystems in SIA

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Presentation Overview

1 Overview of concepts
2 Methodology
3 Baseline
4 Impact evaluation
5 Mitigation and enhancement
6 Conclusions
Concepts

Sustainable livelihoods:
- Consists of the capabilities, assets and activities required for a means of living
- Do not undermine the natural resource base
- Households (HHs) can cope with and recover from stresses and shocks
- HHs can maintain or enhance capabilities and assets both now and in the future
- Livelihood outcomes – more income, food security, improved well-being, reduced vulnerability

Ecosystem services:
- The benefits that people derive from ecosystems
- Examples:
  - food, timber, fibre, and freshwater – ‘provisioning services’
  - Aesthetic enjoyment, leisure – ‘cultural services’
  - Climate regulation, disease control, erosion prevention – ‘regulating services’

Natural resource assets that contribute to livelihoods = ecosystem provisioning services

Concepts

Social Impact Assessment

- Analysing the intended and unintended social consequences, both positive and negative, of projects and any social change processes invoked by those interventions
- Management/mitigation/enhancement
- Monitoring
SIA Process

- **Baseline**
  - What is the current situation?

- **Impact**
  - How will the project cause change? What and who will this affect?

- **Significance**
  - How important is the impact?

- **Mitigate and Enhance**
  - What measures will prevent or reduce negative impacts?
  - What measures will make positive impacts stronger?

SIA Process for Ecosystem Services

**Case study – Multipurpose Dam in Ghana**

**Step 1**
Identify habitats and provisioning services in the area of influence

- **Habitats** - river, forest, agricultural ecosystems
- **Services** – Freshwater, crops, productive trees, fisheries, wild foods, timber and wood fibre, ornamental resources, biomass fuel, natural medicines

**Step 2**
Could the project change the quality or quantity of these services?

- Yes for freshwater, crops, productive trees, fisheries, wild foods, timber and wood fibre, ornamental resources, biomass fuel, natural medicines
- Mainly through inundation land acquisition needs

**Step 3**
Who is impacted?

- Local communities making a living from activities using services.
- Groups include: shea nut collectors, basket weavers, pito brewers, charcoal burners, honey makers, farmers, fishers, livestock managers, bushmeat collectors, and small scale miners
### Key steps

**Case study – Dam in Ghana**

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<thead>
<tr>
<th>Step 4</th>
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<td>Could the project affect others’ ability to benefit from the service?</td>
<td>Is the service important to livelihoods?</td>
<td>Are viable alternatives available?</td>
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<td>Yes</td>
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#### Consultation

### Baseline data gathering – step 7

**Focus groups, ecological surveys, household surveys**

| 1 Establish vulnerability context, shocks, stresses, trends |
| 2 Identify livelihood assets and outcomes |
| 3 Seasonality |
| 4 Access to assets |
| 5 Ecologists to plot uses of species by communities |
| 6 Household surveys on income and contributions from natural resources |
Identifying impacts to natural resource-based livelihoods – step 8

- Land acquisition – loss of farmland, crops, trees, access to clean water and other natural resources
- Forest clearance
- Erosion and surface runoff
- Water abstraction/reduced flow
- Effluent/warm water discharge

Collaboration with engineers and ecologists
Assigning significance – step 8

Sensitivity - vulnerability and resilience; essentially their capacity or lack thereof to absorb changes caused by the project.

Magnitude - likelihood, duration, extent, reversibility and its effect on wellbeing.

Significance - Adverse or beneficial.

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<th>Sensitivity</th>
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<th>Significance</th>
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Identify mitigation – step 9

Various vehicles for mitigation and enhancement:
- E&S management plans - Worker code of conduct to address use of natural resources
- Project design - change in location, reduction of land acquisition, incorporation of fish ladder
- Livelihood restoration plans - livelihood diversification and support
Mitigation

- Skills Development Plan, Local Content Strategy
- Irrigation Scheme Management Plan, Fisheries Management Plan
- Gender Action Plan
- Influx Management Plan
Summary: Nine key steps

- Identify natural resources in area of influence
- Identify if the project could change quality or quantity of natural resources
- Decide who would be affected
- Consider if the project will affect the ability of others to benefit from the resource
- Consider if the resource is important to livelihoods
- Identify if viable alternatives are available
- Gather baseline data
- Evaluate impacts
- Specify appropriate mitigation

Conclusion

Simple step-by-step method → Better understanding of livelihoods context → Better appreciation of impacts and their significance → Improved livelihood outcomes

- Reduced Vulnerability
- More Income
- Improved Well-being
- Food Security
- Improved Well-being
- More Income
- Reduced Vulnerability
Thank you.
Any questions?

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