

**ECOSYSTEM SERVICES IN ENVIRONMENTAL ASSESSMENTS
NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
VS
INTERNATIONAL STANDARDS**

PRESENTATION TO



WASHINGTON, DC – DECEMBER 5, 2018

GREG REUB

ALICIA DE LA CRUZ NOVEY AND COLLIN RAY

PRESENTATION OVERVIEW

- National Environmental Policy Act (NEPA) and Ecosystem Services (ESS)
 - Framework, suitability and integration
- International Framework and ESS
 - Framework, suitability and integration
- Summary and Conclusions

OVERVIEW OF NEPA FRAMEWORK

- NEPA is the basic charter in the United States for protection of the environment and was enacted to:
 - Declare a national policy to encourage productive and enjoyable **harmony between man and his environment**
 - To promote efforts that will prevent or eliminate damage to the environment and biosphere and **stimulate the health and welfare of man**
 - To enrich the understanding of the ecological systems and natural resources **important to the nation**
 - To establish the Council on Environmental Quality (CEQ)
- NEPA and CEQ regulations and directives describe in detail **what** is to be done in preparing an EA or EIS that is compliant with law and regulations but not **how** each requirement is to be met

NEPA HIGHLIGHTS

- NEPA statutes are consistent with the evaluation of impacts, mitigation and alternatives ESS analysis
- ESS approach was originally anticipated for compliance with NEPA
- CEQ (within the Executive Office of the President) ensures Federal agencies meet NEPA obligations, reviews and approves procedures for compliance and interpretation of regulations
- CEQs guidelines and regulations have always reflected an ESS approach
- Since 1999, the ESS concept has been included in guidance documents for environmental impact assessments under NEPA

EXAMPLE NEPA REFERENCES TO ESS

- President's Committee of Advisers on Science and Technology (PCAST) Reports in 1998 and 2011
- 2013 CEQ released new guidance on using an ecosystem services evaluation framework for water resources projects
- A 2015 White House memorandum asking all federal agencies to incorporate ecosystem services into their decision making.
- Most resource managers are assessing, testing and integrating methods for valuing ESS for natural resource management.
- It appears there is no explicit requirement from any Federal agency to incorporate ESS into NEPA compliance documents

OVERVIEW OF INTERNATIONAL STANDARDS FRAMEWORK

- International Financial Institutions (IFIs) developed environmental and social risk management practices and policies.
- Different IFIs implement various forms of these practices and policies including:
 - International Finance Corp. (IFC) Performance Standards on Environmental and Social Sustainability
 - World Bank Group Environmental Health and Safety Guidelines
 - Equator Principles
- There are 92 “Equator Principal IFIs” in 37 countries who commit to implement standards for financing and will not finance where the client will not, or is unable to, comply with the standards

PERFORMANCE STANDARDS HIGHLIGHTS

- Mandates ESS throughout several standards and development of an ESIA
- Includes an elevated form of stakeholder consultation and key human rights are embedded in the standards
- Principles based, not rules based
- Performance Standards and Guidance Notes based on relevant international agreements for consistent application
- If an ESS is considered “critical” there must be “no net loss”
- Management system driven
- Includes substantial monitoring and adaptive management

IFC STANDARDS AND EXPLICIT REFERENCE TO ECOSYSTEM SERVICES

IFC Performance Standard	Summary of Requirements
PS 1: Assessment and Management of Environmental and Social Risks and Impacts	Identify all reasonably expected risks and impacts related to ecosystem services and use a broader definition of a project's area of influence, which now includes indirect impact on ecosystem services upon which Affected Communities' livelihoods are dependent.
PS 4: Community Health, Safety and Security	Assess and manage health, safety and security risks to communities resulting from direct project impact on provisioning and regulating ecosystem services such as the loss of buffer areas (e.g. wetlands, mangroves or upland forests)
PS 5: Land Acquisition and Involuntary Resettlement	Assess impacts on and compensate for loss of provisioning ecosystem services resulting from land acquisition and involuntary resettlement.

IFC STANDARDS AND EXPLICIT REFERENCE TO ESS (CONT.)

IFC Performance Standard	Summary of Requirements
PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Carry out a systematic review (including participation of Affected Communities) of all ecosystem services a project will impact or is dependent upon to identify priority ecosystem services , and avoid, minimize and mitigate impacts on priority ecosystem services for which a client has direct management control or significant influence.
PS 7: Indigenous Peoples	Assess provisioning and cultural ecosystem services when examining projects affecting Indigenous Peoples.
PS 8: Cultural Heritage	Minimize adverse impacts and implement restoration measures, in situ, that ensure maintenance of the value and functionality of the cultural heritage. Including maintaining or restoring any ecosystem processes needed to support it. Where restoration in situ is not possible, restore the functionality of the cultural heritage, in a different location, including the ecosystem processes needed to support it.

PS 6 EXAMPLE EXPANDED

BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES

- Valued Environmental and Social Components (VECs)
 - VECs are normally developed in the ESIA to comply with PS 1
- Cumulative Impacts
 - Focuses on local communities and requires development of VECs and ESS analysis
 - Requires an analysis of impacts, mitigation and management of direct and indirect impacts outside the project footprint.
- Management of Ecosystem Services
 - Requires an analysis of impacts, mitigation and management of ESS with a Focus on “Affected Communities” but includes all stakeholders
 - If “critical ecosystem services” are determined, a “no net loss” mitigation policy triggered
- Biodiversity Management and Mitigation

SUMMARY – METHODS AND RESULTS

IFC	NEPA
Promotes interdisciplinary interaction and analysis that is required for a fair and complete assessment	Promotes discipline silos that encourage scientists and regulators to not think outside the box
Requires the integration of temporal and spatial relationships across disciplines that expand the understanding of impacts and improves mitigation	Discourages integration of temporal and spatial relationships and restricts long-term understanding of impacts and mitigation
Standardizes methods and promotes simplification through the development of directly relevant science and human values	Promotes development of generalized but complex data bases and models that are then used to represent very local values
Ecosystem services analysis quantifies service baseline, project effects and ecological service lift	Does not build the baseline and impacts assessment to construct efficient and cost-effective management

SUMMARY – AFFECTED STAKEHOLDERS

IFC	NEPA
Emphasizes local and affected stakeholder values and data collection and analysis that reflect those values	Local affected stakeholders can be deemphasized through wide and well-organized national influence
Allows for impacts and mitigation to be focused on directly affected communities and stakeholders	Allows focus on minor but emotionally charged project effects that are out of context and biases the public
Provides local stakeholder buy-in resulting in cooperative management long-term	If social values are not represented, long-term management is more difficult
If ESS are found to be critically important, there can be no net loss	Mitigation does not have to include no net loss
Provides detailed, science-based and transparent process that incorporates all values from the affected public	Can encourage ESS valuation for all values in monetary terms

THANKS

**GREG REUB
ECOANALYSTS**

GREUB@ECOANALYSTS.COM

360 628 8602

