Environmental and Social Impact Assessment for Hydropower Projects

With over two decades of extensive worldwide project experience in the resource development and energy sectors, including multiple hydropower projects, Earth Systems understands the needs of energy companies, offering specialist multi-disciplinary expertise in environmental and social impact assessment, management and monitoring.

Earth Systems has extensive experience in major energy projects and a strong understanding of international standards, including the Equator Principles and International Finance Corporation’s Performance Standards. Backed by a strong understanding of local regulatory systems and cultural sensitivities, we provide the comprehensive support needed to assist our project partners to meet regulatory requirements for project permitting and financing.

Earth Systems’ approach is to work closely with project managers and engineers during the prefeasibility and feasibility stages of project development to ensure that environmental, social and health considerations are fully integrated into project design.

Our aim is to develop management and mitigation measures that are both technically and economically feasible, and minimise any potential environmental, social and health impacts to a degree acceptable to regulators, financiers, the community and other stakeholders.

Hydropower is an area of particular expertise at Earth Systems, with extensive experience on major hydropower and energy projects in Asia and Africa, and a rigorous understanding of the technical, regulatory and financial requirements for impact assessment.

SERVICES PROVIDED

Key services include:
• Baseline studies (environmental, socio-economic and health).
• Environmental, social-economic and health impact assessments.
• Environmental risk assessment.
• Environmental management systems.
• Environmental and social compliance monitoring and auditing.
• Environmental and social management and monitoring plans.
• Biodiversity monitoring, offset and management plans.
• Resettlement and compensation planning and support.
• Land use planning.
• Permitting requirements analyses and support.
• Stakeholder consultation programmes and facilitation.
• Equator Principles and IFC Performance Standards reviews.

PROJECT EXPERIENCE

- Social and Health Impact Mitigation Assistance for a MIGA-funded water, sanitation and hygiene (WASH) project to describe and propose mitigation measures for the impacts of hydropower operations on human health, Cameroon.
- IFC Standard ESIA, Resettlement Action Plan (RAP), Nyagak III Hydropower Project, Uganda.
- ESIA, Nam Ou Cascade Hydropower Project, Lao PDR.
- ESIA, Thaikho Hydropower Project, Lao PDR.
- ESIA, RAP and Social Action Plan (SAP), Xeset 2 Hydropower Project, Lao PDR.
- ESIA, Nam Tha 1 Hydropower Project, Lao PDR.
- Preliminary ESIA, Nam Ngiep 2 Hydropower Project, Lao PDR.
- Clean Development Mechanism (CDM) Implementation, Xeset 2 Hydropower Project, Lao PDR.
- Land and Asset Baseline Study (Phase 1 and 2a), Nam Theun 2 Hydropower Project, Lao PDR.
- Cumulative Impact Assessment for the Nam Ngum 3 Hydropower Project, Lao PDR.
- Livelihood Restoration Plan, Nam Ngum 5 Hydropower Project, Lao PDR.
- Mekong Mainstream Hydropower Optimization Study and Preliminary ESIA, Lao PDR.
- Environmental and Social Due Diligence Review, Hongsa Mine Mouth Power Project, Lao PDR.
- Initial Environmental Examination (IEE), Environmental Management Plan (EMP), and Resettlement Action Plan (RAP), Pakbeng – Saravan Transmission Line, Lao PDR.
- IEE, Ban Hatxan (BanSok) Lao PDR to Pleiku Vietnam, 500kVA Transmission Line and Substation Construction Feasibility Study, Lao PDR.
- Technical Assistance to the Nam Ngum 5 Hydropower Project to meet IFC / MIGA standards, NNSPC, Lao PDR.
- Social Impact Mitigation and Benefit Sharing in the Mining and Hydropower Sectors of Lao PDR, World Bank, Lao PDR.