STA. CLARA
POWER CORPORATION

# Catuiran 8MW Mini Hydro Project

## Chapter 4

# ENVIRONMENTAL IMPACT

## Feasibility Study for Private Sector Participation and Operation

# General Remarks on the Environmental Impact Assessment

## *Environmental Impact Assessment (EIA)*

Environmental Impact Assessment "...identify, describe and assess in an appropriate manner... the direct and indirect effect of a project on the following factors:

- □□Human beings, fauna and flora
- □□Soil, water air and climate
- □□The interaction between the factors mentioned in the first and second incidents
- □□Material assets and cultural heritage"

(Reference: Council Directive 85/337 of June 27, 1985)

The Environmental Impact Assessment is a procedure to support decisions, and to supply to relevant authorities all the elements necessary to take a decision about the project. It must contain, stated in a scientific way, all the effects of the project on the environment.

## *EIA Significance, Transparency*

As a decision process, an Environmental Impact Assessment is significant when it present a multiplicity of alternatives among which a choice is possible: different project and design alternatives must be took into considēration, including the so called "zero alternative", and the relevant impacts must be analyzed.

An Environmental Impact Assessment must be always a process repeatable and therefore as transparent as possible: this is a very important requirement which must reflect in the clarity of data and in methods of approach accepted both by the proponent and the relevant authorities. The agreement of the parties involved in the process on the general methodology is quite

important to force each part to follow a path made of precise and defined steps avoiding as far as possible arbitrary evaluations.

## *Steps of the Environmental Impact Study*

The Environmental Impact Study (EIS) is split in the following steps:

### 1) Description of the Project, Environment and Design Alternatives

It will be the base for the subsequent assessment step. By the other side some *a priori* evaluations are always present even in the description step: they are not eliminable and they condition the description.

a) SOURCE: the projected intervention which could produce significant effects on the environment.
b) ELEMENTARY ACTIONS: the elements of the intervention which generate interference on the environment around; defined for the different moments of the life of the plant.
c) DIRECT INTERFERENCE: direct alterations, describable in terms of environmental factors, produced on the environment by the projected intervention and considered in the initial phase during which it's generated by the actions of project..
d) ENVIRONMENTAL TARGETS: there are the elements described by means of environmental components and which can be reached and modified by perturbations caused by the projected intervention.

### 2) Determination and Estimation of Impact on the Environment

The main scope of impacts analysis phase is to compare the environment before and after the realization of the works. In other words this phase connects the project actions with their impacts on the environment. To get the scope it's important to split the project in a set of elementary actions not only for clarity in the study, but even (and first of all) because only a good detail in the description prevents from generic, qualitative and aleatory information. The splitting into elementary actions make rising the problem of how to get a synthesis of all the in-formation in view of the assessment phase. During the analysis phase the first problem to be faced is the statement of the significant impacts caused by the projects and the

environmental targets. A remarkable help can be given by pre-defined lists both for actions and for impacts. In the specific case of Environmental Impact Assessment of small hydropower plants the approach by means of the said lists has been chosen. Once the impacts relevant to the particular situation have been determined, the following step is their estimation. The estimation of the impact must be as far as possible quantitative.

This is the most important aspect of the whole procedure. Very often the impacts are defined by qualitative criteria which are arbitrary and not measurable, so that an unacceptable degree of uncertainty is present before any assessment. Furthermore the impacts must be defined by criteria enough easily measurable or in a way compatible with the degree of detail of the project and with times to obtain an answer from relevant authorities about the environment acceptability of the project. So, especially for small hydropower plants, Environmental Impact Assessment it's recommendable to refer to a biotic indexes, more easily measurable than biotic ones and from which anyway these latter depend.

### 3) Environmental Impact Assessment Carried out by the Proponent

In the assessment step we pass from the determination and estimation of the impacts, each one measured by an appropriate quantity, to an assessment of the importance of the variation foreseen for the specific environmental component. In this phase we have to define the criteria on the basis of which we can say that an impact is more or less significant for the environment studied.

# PROGRAM FOR ENVIRONMENT AND SOCIAL OBLIGATIONS

## Environmental Management

*The Proposed Catuiran Mini Hydropower Project has been granted* Certificate of Non Coverage (CNC) under the Philippines Environmental Impact Statement System (PD 1586) being a mini hydropower resource development project with respect to its construction, operation and phase-out.

The Power Station shall be operated in accordance with all environmental and other Philippine and local laws and regulations in force as of the date the Power Plant was constructed and shall comply with any changes in such laws and regulations and any new laws and regulations.

Action Plans for Compliance to Environmental Laws and Regulations as follows.

| ENVIRONMENTAL LAWS/REGULATIONS | PARTICULARS | ACTION PLANS/ REMARKS |
|---|---|---|
| P.D. No. 1586 of 1978 (EIS System) MC No. 01 Dated 05Jan05 | EIS | Project has been exempted from EIS requirement, with conditions that the Project shall comply with environmental laws, rules and regulations that include RA 8749, RA 9003, RA 6969, among others. |
| P.D. No. 984 of 1976 R.A No. 8749 (Phil. Clean Air Act/PCAA) DAO No. 2000-81 IRR | Air Pollution Control<br><br>Environmental Monitoring/ Standards<br><br>Continuous Emission Monitoring Systems | Renewal of Permit to Operate Air Pollution source and Control Installation from the DENR as required.<br>Emission Monitoring conducted by retained consultant, Ambient air and noise monitoring<br><br>Comply with CEMS requirements as DENR issued guidelines |
| P.D. No. 984 of 1976 DAO No. 35 | Water Pollution Control<br><br>Environmental Monitoring Standards for Effluent | Renewal of Permits to Operate Wastewater Treatment Facilities from the DENR as required.<br>Regular Monitoring by the Chemical Laboratory before and after discharge to creek. |

| | | |
|---|---|---|
| R.A. No. 6969<br>DAO No. 29 (IRR) | Toxic Substance and Hazardous Waste Control | Renewal/Registration with DENR: Facility as Waste Generator.<br>Waste disposal offsite are to be done by accredited transporters and treaters/recylers. |
| | Philippine Country Program for Halon-based or Ozone Depleting Substances Phase-Out Plan | Non Usage of CFC containing equipment, fire extinguishers, etc. |
| | Oil Spill contingency Plan | Integration of Oil Spill Contingency plan in Environmental Management System to include oil spill containment equipment and spill control materials. |
| DOLE, Occupation Health and Safety Standards, 1992 | Personnel Protection (PPE) Equipment, Trainings and Safety and Health Related Programs, Wellness Programs | Implement use of PPEs and Uniforms<br>Allocation of Budget for Trainings, PPEs and other Health and Safety related programs/materials<br>Annual Wellness Programs including sports and other tournaments<br>All employees undergo a whole year round health program such as audiometry, Hepa-B Immunization, Annual PE, Anti-Tetanus Immunization and others. |
| Water Pollution Control Equipment | | Water pollution Control Equipment where necessary. |
| Ecological Set-up | | Management Plan for the maintenance of trees planted within the plant vicinity |

## Community Relations and Social Obligations

Pursuant to Rule 29 of the IRR of RA 9163 (EPIRA), and as stated in the Terms and Conditions of the Certificate of Compliance from the Energy Regulatory Commission, the Generation Company/Facility shall provide financial benefits to the communities hosting the Generation Facility.

### RULE 29. BENEFITS TO HOST COMMUNITIES

Pursuant to Section 66 of the Act, the obligations of Generation Companies and energy resource developers to communities hosting the Generation Facilities and/or energy resource development projects as defined under Chapter II, Section 289 to 294 of the Republic Act No. 7160 (Local Government Code) and Section 5 (i) of Republic Act No.7638 (DOE Law) and their implementing rules and regulations shall continue: *Provided*, That the obligations mandated under Chapter II, Section 291 of Local Government Code, shall apply to privately-owned corporations or entities utilizing the national wealth of the locality.

### A. RULES FOR THE BENEFITS TO HOST COMMUNITIES PURSUANT TO SECTION 5(i) OF REPUBLIC ACT 7638

**Section 1. Scope of Application.**

This Rule shall apply to Generation Facilities and/or energy resource development projects located in all barangays, municipalities, cities, provinces and regions.

**Section 2. Obligation to Provide Financial Benefits.**
The Generation Facilities and/or energy resource development facilities, such as but not limited to the following, are required to provide the financial benefits under Energy Regulations No. 1-94 (E.R. 1-94) of the DOE:

(a) Spin-off Facilities of NPC or their transferees, including Generation Facilities owned by NPC transferred to PSALM and subsequently privatized pursuant to the Act;
(b) Agus and Pulangui Complexes;
(c) Facilities owned and operated by NPC-SPUG;
(d) Facilities under BOT arrangement and other variants with NPC (NPC IPPs), NPC- SPUG, NIA, PNOC-EDC and other government agencies;
(e) Facilities under BOT arrangement and other variant with Distribution Utilities (IPPs of Distribution Utilities);
(f) Facilities owned or operated by a Distribution Utility;
(g) Self-Generation Facilities;
(h) Facilities operating in EZs; and
(i) Integrated energy resource development and Generation Facilities such as hydro, geothermal and coal.

**Section 3. Beneficiaries.**
Direct benefits shall be provided to the host LGU, especially the community and people affected while equitable preferential benefits shall be provided to the host region. Host LGU or host region shall be understood as follows:

(a) With respect to Generation Facilities, in the case of power barges, the host LGU or region is that where the power barge is moored; in all other cases, the host LGU or region is that where the Generation Facility is physically located. Generation Facilities shall not include transmission lines and substations.

(b) With respect to energy resources:

(i) Coal. The host LGU or region is that where the producing positive coal reserve is located, as delineated by detailed geophysical, geological and exploration surveys.

(ii) Geothermal. The host LGU or region is that where the producing geothermal reservoir is located as delineated by geochemical, geophysical, and exploration surveys. "Producing geothermal reservoir" refers to the subsurface geological environment where the geothermal fluids accumulate and circulate, inclusive of the production and re-injection/recharge zone.

(iii) Hydro. The host LGU or region is that where the hydro reservoir is located as delineated by detailed topographic, geological and geo-technical investigations, reservoir and dam height optimization studies, and as delineated by detailed ground surveys. "Hydro reservoir" refers to either a natural lake or an artificial lake created by the impounding of stream flow, runoff and subsurface water including but not limited to intakes, diversion weirs and transbasin underground tunnel which supplies water to a dam. It also refers to where river or rivers supply/ies water to a dam reservoir through a transbasin underground tunnel to generate power.

(iv) Petroleum/Natural Gas. The host LGU or region is that where the producing petroleum/natural gas reservoir is located, as delineated by detailed geochemical, geophysical exploration surveys.

**Section 4. Nature of Benefits Provided under E.R. 1-94.**

(a) The Generation Company and/or energy resource developer shall set aside one centavo per kilowatt-hour (P 0.01/kWh) of the total electricity sales as financial benefit of the host communities of such Generation Facility, where applicable.

(i) For a Generation Facility and/or energy resource located in a non- highly urbanized city, the P 0.01/kWh financial benefit shall be allocated as follows:

(1) Fifty percent of one centavo per kilowatt-hour (P 0.005/kWh) of the total electricity sales shall be set aside as an electrification fund (EF) to be applied in the following radiating order:

(a) Designated resettlement area/s;
(b) Host barangay/s;
(c) Host municipality/ies or city/ies;
(d) Host province/s;
(e) Host region/s; and
(f) Other areas as may be prioritized/determined by the DOE.

(2) Twenty five percent of one centavo per kilowatt-hour (P0.0025/kWh) of the total electricity sales as a development and livelihood fund (DLF) to be applied in the following manner:

(a) Designated resettlement area/s - 5%
(b) Host barangay/s - 20%
(c) Host municipality/ies or city/ies - 35%
(d) Host province/s - 30%
(e) Host region/s - 10%

In the absence of a designated resettlement area/s, funds allocated for the resettlement shall form part of the host barangay/s.

(3) Twenty five percent of one centavo per kilowatt-hour (P0.0025/kWh) of the total electricity sales as a reforestation, watershed management, health and/or environment enhancement fund (RWMHEEF) to be allocated in the following manner:

(a) Designated resettlement area/s - 5%
(b) Host barangay/s - 20%
(c) Host municipality/ies or city/ies - 35%
(d) Host province/s - 30%
(e) Host region/s - 10%

In the absence of a designated resettlement area/s, funds allocated for the resettlement shall form part of the host barangay/s.

(ii) For a Generation Facility and/or energy resource located within a highly urbanized city, the P 0.01/kWh financial benefit shall be allocated as follows:

(1) Seventy five percent of one centavo per kilowatt-hour (P0.0075/kWh) of the total electricity sales of all Generation Facilities located in a highly urbanized city shall be set aside into one account as an EF to be applied in the following priority:

(a) Designated resettlement area/s;
(b) Host barangay/s;
(c) Host city/ies;
(d) Province/s nearest to the host city/ies;
(e) Region/s of the host city/ies;
(f) Host communities of other facilities with insufficient electrification fund;
(g) Areas traversed by transmission lines and substations or similar facilities; and
(h) Other areas as may be prioritized/determined by the DOE.

(2) Twelve and one-half percent of one centavo per kilowatthour (P 0.00125) as a DLF to be allocated in the following manner:

(a) Designated resettlement area/s - 10%
(b) Host barangay/s - 30%
(c) Host city/ies - 60%

In the absence of designated resettlement area/s, funds allocated for the resettlement shall form part of the host barangay/s.

(3) Twelve and one-half percent of one centavo per kilowatthour (P 0.00125) as a RWMHEEF to be allocated in the following manner:

(a) Designated resettlement area/s - 10%
(b) Host barangay/s - 30%
(c) Host city/ies - 60%

In the absence of designated resettlement area/s, funds allocated for the resettlement shall form part of the host barangay/s.

(iii) In case of integrated hydroelectric generation projects with cascading Generation Facilities, where the Generation Facilities and energy resource are located in different municipalities/cities or provinces, irrespective of its location, whether located in a highly urbanized city or non-highly urbanized city, allocation of financial benefits shall follow Section 4(a)(i), hereof. The host communities of the Generation Facilities and energy resource development projects shall equally divide said financial benefits. The host municipality/city of the Generation Facility adjacent to the energy resource shall in no case be a host to both said Generation Facility and energy resource.

(b) All interest earnings from EF, DLF, RWMHEEF shall be set aside into one trust account to be utilized for the electrification projects of the communities in the following order of priority:

(i) Direct host barangay/s, and host municipality/ies or city/ies with insufficient accrued EF;
(ii) Areas traversed by transmission lines, and sub-stations or similar facilities;
(iii) Areas not directly connected to the Grid or national transmission system which include isolated or remote communities; and
(iv) Other areas as may be prioritized/determined by the DOE.

(c) The financial assistance advanced by the Generation Company and energy resource developer during its pre-operation stage or before the start of the commercial operations for the purpose of securing favorable endorsement from the community and people affected, after Republic Act 7638 (DOE Law) has become effective or pursuant to this Rule, shall be credited by the Generation Company, energy resource developer or their successors-in-interest against the accrued financial benefits based on the following criteria:

(i) The projects to be funded under the advance financial assistance should be approved by the DOE consistent with E.R. 1-94.
(ii) The total financial assistance to be amortized at a rate of twenty percent (20%) from the accrued financial benefits shall be based on the actual amount spent for the project/s validated by the DOE.

(iv) Amortization of financial assistance shall commence from the next quarter billing, after the DOE has issued a validated report on the actual amount spent for the project/s.

**Section 5. Establishment of Trust Accounts.**
The DOE shall establish trust accounts specific for EF, DLF, RWMHEEF in the name of the DOE and the Generation Facilities or Generation Company and/or energy resource developer. For purposes of said establishment, the Generation Company and/or energy resource developer shall submit a report that contains the following data:

(a) Actual generation, station/own service use, system loss, and electricity sales in kilowatt-hour;
(b) Accrued benefits due to the host LGU and host region derived from Section 5(a) hereof;
(c) Details of benefits and/or financial assistance advanced to the host LGU and host region, if any; and (d) Such other information, which the DOE may deem necessary for review and audit purposes.

**Section 6. Project Implementation and Approval.**
The evaluation and approval of project proposals/work programs endorsed by the host LGU and host region through the Generation Company and/or energy resource developer shall strictly be guided by the following procedures:

(a) The Generation Company and/or energy resource developer, through its designated Community Relations Officer (COMREL) shall assist the host LGU and host region in the preparation of annual work programs/project proposals qualified by the DOE to be implemented in any given year. The amount of financial benefits accruing to the pertinent funds in the immediate preceding year shall be used as basis in the preparation of annual work programs/project proposals. The said annual work programs/project proposals shall be submitted by the Generation Company and/or energy resource developer to the DOE not later than March 15 of every year.
(b) All work programs/project proposals for DLF and RWMHEEF shall be implemented within one (1) year upon receipt of funds. Said work programs/project proposals shall be implemented, supervised and administered by the concerned LGU.
(c) The Generation Company and/or energy resource developer shall review the work programs/project proposals on development, livelihood, reforestation, watershed management, health and/or environment enhancement duly endorsed by the host LGU and host region through a resolution passed by its Sanggunian or Regional Development Council. In the case of official resettlement area, work programs/project proposals may be endorsed by the resettlement organization, association or cooperative duly certified by the Generation Company and/or energy resource developer and registered under the concerned government agencies. The Generation Company and/or energy resource developer shall make the appropriate endorsement of annual work programs/project proposals to the DOE for further review and approval. The review and approval of annual work programs/project proposals shall be completed by DOE within twenty

(20) working days upon receipt of complete documentation. Thereafter, project implementation shall proceed as prescribed under Sub-section (f)(i), hereof.

(d) For reforestation and watershed management projects, work programs/project proposals should be coordinated and endorsed by the DENR Regional Office or the watershed management administrator in the area.

(e) For electrification programs, the Generation Company and/or energy resource developer shall coordinate with the concerned Distribution Utility in the development of said program for the barangays energization and prioritization in any given year. The annual electrification programs shall be directly forwarded to DOE for review and evaluation. The NEA shall assist the ECs in the preparation of documents such as but not limited to the staking sheets or single line diagrams and cost estimates. Thereafter, project implementation shall proceed as prescribed under Sub-section (f)(ii), hereof. The electrification projects may be undertaken by the Distribution Utility or the Generation Company and/or energy resource developer or their accredited contractors, herein referred to as project implementor.

(f) Upon submission of complete documents of the work programs/project proposals, project implementation shall proceed in any of the following manner:

(i) For development, livelihood, reforestation, watershed management, health and/or environment enhancement projects, a Memorandum of Agreement (MOA) shall be entered into by and among the DOE, Generation Company and/or energy resource developer, and the concerned LGU to effect funds commitment and project implementation. The DOE shall then make the necessary fund allocation and shall forthwith release the project funds directly to the concerned host LGU or host region within fifteen (15) days upon submission of complete supporting documents pursuant to the provisions in the MOA.

(ii) For electrification projects, a MOA shall be entered into by and among the DOE, the concerned Distribution Utility/project implementor, Generation Company and/or energy resource developer to effect funds commitment and project implementation. The DOE shall then make the necessary fund allocation and shall forthwith release the funds to the franchised Distribution Utility/project implementor within fifteen (15) days upon submission of complete supporting documents pursuant to the provisions in the MOA. For projects to be undertaken by contract, initial release of fund shall be equivalent to fifteen percent (15%) of the total approved project cost. Subsequent release of fund balance shall be based on the result of qualified lowest bid cost. For projects to be undertaken by administration, total approved project cost shall be released upon signing of the MOA.

(g) All funds disbursements shall follow government accounting and auditing rules and regulations.

**Section 7. Administration of Trust Accounts.**

(a) The administration of EF, DLF, RWMHEEF shall be undertaken by the DOE. All funds administered by NPC with regard to DLF and RWMHEEF shall be transferred to DOE for administration within one hundred twenty (120) days from the effectivity of these Rules. Thereafter, all MOA entered into by DOE and NPC on the establishment of trust accounts shall be amended to reflect transfer of responsibilities to NPC-successors, transferees and/or assignees or IPPs.

(b) The obligation of the Generation Companies to DOE with regard to the remittance of funds shall be settled in the following manner:

(i) For NPC-IPPs, if applicable, to settle all obligations before issuance of COC/registration certificate by ERC.

(ii) For NPC, if applicable, to settle all obligations before Privatization/sale and transfer of IPP contracts to PSALM.

(iii)For IPPs of Distribution Utilities with an outstanding financial obligation with the DOE pursuant to Department Circular No. 2000-03-03 shall settle its account within one (1) year upon effectivity of these Rules.

(iv) After thorough investigation, non-remittance of the Generation Company and/or energy resource developer of the financial benefits due to the host communities shall be a ground for DOE's recommendation to ERC for appropriate action and reasonable measures in accordance with ERC rules and regulations.

**Section 8. Audit of Financial Benefits and Project Monitoring.**

(a) The DOE shall review and audit the source of fund, particularly on the total electricity sales of the Generation Facility to determine the financial benefits due to the host LGUs and host regions.

(b) The DOE shall conduct financial and technical audit to monitor compliance by the LGU and region with regard to the implementation of the projects. In the event of unjustified disbursement of fund and non-completion or delay in the implementation of projects by the LGU or region concerned and the Distribution Utility/project implementor, the DOE shall defer the releases of funds and take appropriate reasonable measures in accordance with any existing and future government rules and regulations until such time that the LGU or region and franchised Distribution Utility/project implementor would be able to justify disbursement of funds to the satisfaction of the DOE or deputized/resident auditor of the Commission on Audit (COA).

**Section 9. Other Provisions.**

(a) The application of this Rule 27(A) shall take effect upon effectivity of these Rules.

(b) Any provision in E.R. 1-94, its amendments and other related issuances and their amendments that are inconsistent with these Rules are hereby superseded, modified or amended accordingly.

## B. RULES FOR THE BENEFITS TO HOST COMMUNITIES PURSUANT TO CHAPTER II, SECTIONS 289 TO 294 OF THE LOCAL GOVERNMENT CODE

**Section 1. Scope of Application.**
The LGUs hosting the national wealth shall have an equitable share in the proceeds derived from the utilization and development of national wealth, including sharing the same with the inhabitants by way of direct benefits.

**Section 2. Amount of Share of Local Government Units.**
Any government agency or government-owned or controlled corporation and private corporation or entities engaged in the utilization and development of the national wealth are required to provide share to the host LGUs, based on the preceding fiscal year of the proceeds, based on the following formula, whichever will produce a share higher for the LGU:

(a) One percent (1%) of the gross sales or receipts of the preceding calendar year; or
(b) Forty percent (40%) of the national wealth taxes, royalties, fees or charges derived by the government agency or government owned and controlled corporation and privately-owned corporation or entities.

**Section 3. Nature of Benefits.**

(a) Eighty percent (80%) of the proceeds shall be applied solely to lower the cost of electricity either through subsidy or non-subsidy scheme or combination of both.
   (i) Non-subsidy scheme may take the form but not limited to electrification, technical upgrading and rehabilitation of distribution lines to reduce electricity losses, use of energy saving devices, and support of the infrastructure facilities servicing the needs of the public which can all redound to the reduction of the electricity rate of the area.
   (ii) Subsidy scheme will be directly utilized to subsidize cost of power used by the consumers. This may be applied with or without ceiling or at graduated rates (per kWh per level of consumption) in the following form which the host LGU may choose from.
      (1) Subsidy per customer, an equal or predetermined level or rate of subsidy per qualified customer:
         (a) All consumer types;
         (b) Residential consumer only; and
         (c) Other preferred types of consumer combinations, such as: commercial, industrial, public buildings, irrigation/communal water system, streetlights, etc.
      (2) Subsidy of power consumption, which amount of subsidy depends on the magnitude of power consumption of qualified consumers:
         (a) All consumer types;
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(b) Residential consumer only; and
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(b) Twenty percent (20%) of the proceeds shall be utilized for the development and livelihood projects which shall be appropriated by their respective Sanggunian.

**Section 4. Allocation of Shares.**
The amount of share of the LGUs shall be distributed in the following manner:

(a) For energy resource located in the province, share shall be appropriated as follows:
  (i) Host barangay - 35%
  (ii) Host component city/municipality - 45%
  (iii) Host province - 20%

(b) For energy resource located in a highly urbanized or independent component city, share shall be appropriated as follows:
  (i) Host barangay - 35%
  (ii) Host city - 65%

(c) For energy resource located in two (2) or more provinces, or in two (2) or more municipalities/cities or two (2) or more barangays, their respective shares shall be appropriated on the basis of the following:
  (i) population - seventy percent (70%); and
  (ii) land area- thirty percent (30%)

Where the land area is the area of the host barangays found within the technically delineated energy resource area and where the population refers to the population of host barangays found wholly or partially within the technically delineated energy resource.

**Section 5. Monitoring.**

(a) The Department of Interior and Local Government (DILG) shall monitor the compliance of host LGUs. To assist in the monitoring of compliance, all host LGUs of energy projects are required to submit the following:
  (i) The scheme of electricity rate reduction adopted by the host LGU (with proper documentation) based on the prescription in the DILG-DOE Joint Circular 95-01 dated 31 October 1995 at the start of the use of fund or upon the amendment of scheme by the respective LGU councils; and
  (ii) Summary of transactions thirty (30) days after end of each quarter.
  The DILG shall furnish the DOE the above information within fifteen (15) days from the date of the reporting period.

(b) The COA shall conduct yearly audit of the national wealth proceeds consistent with its responsibility to examine all accounts pertaining to uses of funds and property owned or held in trust by the government or any of its agencies as mandated under Section 2 of Presidential Decree No. 1445 of 1976.

(c) In the event of violation or non-compliance with the provisions of the DILG-DOE Joint Circulars 95-01 and 98-01, and other relevant issuances, the DILG may, upon prior notice and hearing, order the project proponent the non-remittance of the royalty payment to the host LGU concerned pending completion of the investigation of the concerned LGU if the project proponent is a GOCC; or notify the DBM regarding such violation and order the non-release of the LGU shares if the project proponent is a private company. The unremitted funds shall be deposited in a government bank under escrow.

Action Plans for Community Relations as follows:

| SOCIAL OBLIGATIONS | PARTICULARS | ACTION PLANS/ REMARKS |
|---|---|---|
| Community Development Programs (Under ER 1-94) | Livelihood Programs | Work with Key Cooperatives on Livelihood programs on development of programs addressing livelihood. |
| | Annual Medical Missions | Work with Local NGOs and Foundations on Free Medical and Dental services. |
| | Social Forestry / Agriculture | Purchase, propagation and distribution of fruit bearing tree seedlings, implementation of project with local government units (DENR, DA), sustainable management of social forestry program. |
| | Infrastructure Projects | Monitoring of implemented infrastructure projects assuring sustainable management of the facilities. |
| Other Non-MOA self-obligated social activities | | |

# SUMMARY MATRIX OF ENVIRONMENTAL ISSUES/IMPACTS
## Catuiran Mini Hydropower Project

| Environmental Issues/Impacts by Development Phases | Project Components/Impact Areas | | | | | |
|---|---|---|---|---|---|---|
| | Dam & Intake | Low Pressure Headrace | Forebay | Penstock Pipe | Power House | Transmis-sion Line |
| 1. Construction Phase | | | | | | |
| 1.1 Physical Environment | | | | | | |
| - Air Quality / Dust Pollution | 0 | 0 | 0 | 0 | 0 | 0 |
| - Noise | 1 | 1 | 1 | 1 | 1 | 0 |
| - Water Quality and Quantity | 1 | 1 | 1 | 0 | 0 | 0 |
| - Land Use Conflict/Conversion | 2 | 2 | 2 | 2 | 2 | 2 |
| 1.2 Biological Environment | | | | | | |
| - Destruction of Vegetation | 1 | 1 | 1 | 1 | 1 | 1 |
| - Loss of Topsoil | 0 | 0 | 1 | 1 | 1 | 0 |
| 1.3 Socio-Econ. Environment | | | | | | |
| - Loss of Agric. Livelihood | 0 | 0 | 0 | 1 | 1 | 1 |
| - Displacement of Settlements | 0 | 0 | 0 | 0 | 0 | 0 |
| -Occupational Risks to Workers | 1 | 2 | 0 | 0 | 0 | 0 |
| 2. Operational Phase | | | | | | |
| 2.1 Physical Environment | | | | | | |
| - Noise | 0 | 0 | 0 | 0 | 2 | 0 |
| - Water Quality and Quantity | 1 | 1 | 1 | 0 | 1 | 0 |
| 2.2 Biological Environment | | | | | | |
| - Effect on Aquatic Life | 2 | 1 | 1 | 0 | 1 | 0 |
| - Loss of Productivity of Land | 0 | 0 | 0 | 0 | 0 | 0 |
| - Pre-emption of Wildlife Habitat | 1 | 0 | 0 | 0 | 0 | 0 |
| 2.3 Socioeconomic Environment | | | | | | |
| - Trespassing | 2 | 1 | 1 | 0 | 2 | 2 |
| - Increase in Land Values | 0 | 0 | 1 | 1 | 2 | 2 |
| - Shift to non-Agricultural Livelihood | 2 | 0 | 0 | 0 | 2 | 0 |

Legend: 2 - Significant Impact
1 - Moderate Impact
0 - Insignificant